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Peabody Museum of Archæology and Ethnology
Harvard University
Volumes XI and XII

CHICHEN ITZA AND ITS CENOTE OF SACRIFICE

A Comparative Study of Contemporaneous Maya and Toltec

By
ALFRED M. TOZZER

VOLUME XI: TEXT

CAMBRIDGE
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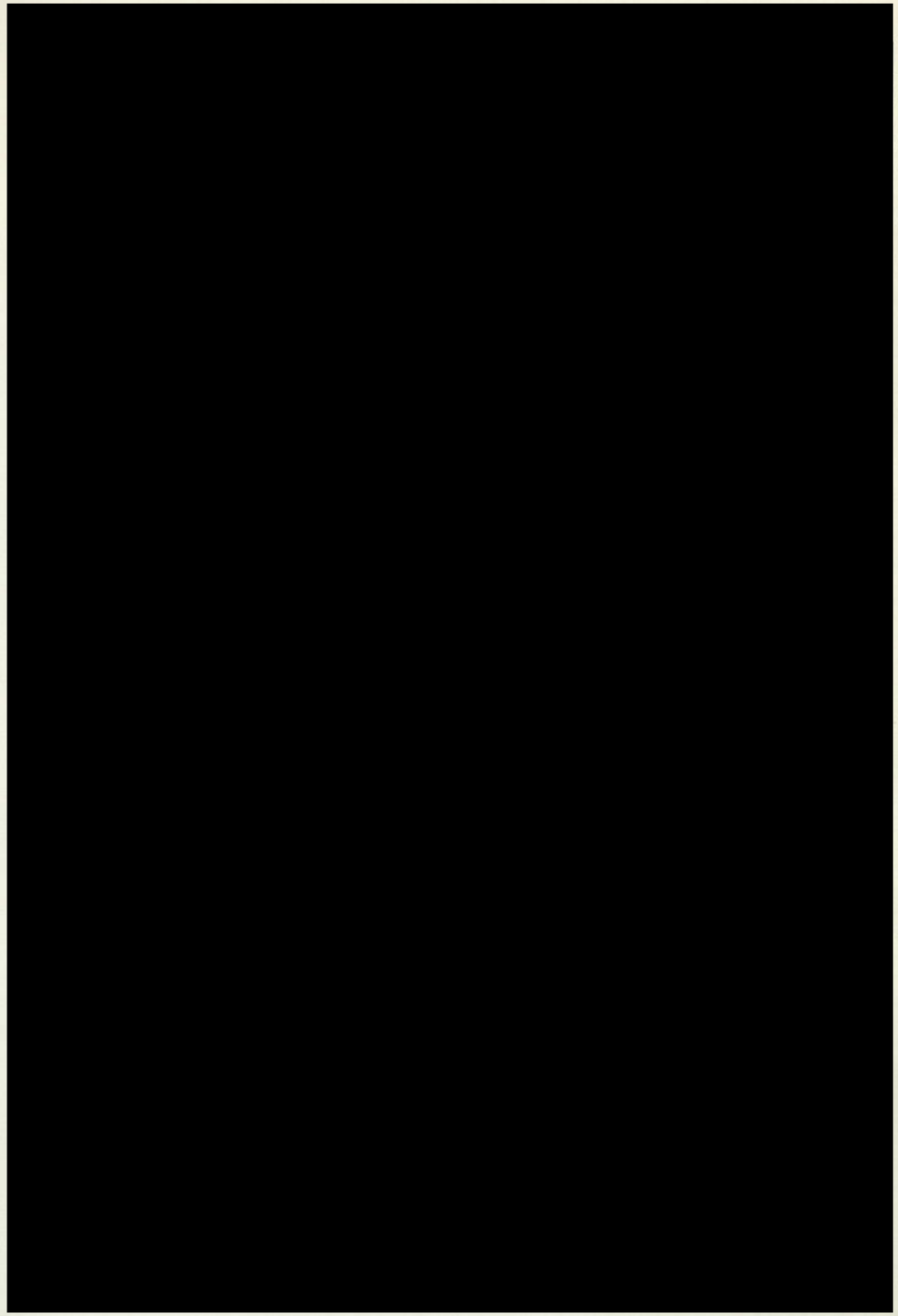

CHICHEN ITZA, CENOTE OF SACRIFICE FROM THE NORTHERN RIM
Courtesy of Carnegie Institution of Washington

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To the honored memory of

Charles Pickering Bowditch

patron and student of the Maya,
to whose inspiration and aid
this Cenote investigation is due
and to

Edward Herbert Thompson

who, with singleness of purpose
and amid great difficulties,
carried out the project

PUBLISHER'S PREFACE

It is fitting that the last major work of Alfred M. Tozzer, completed shortly prior to his death, should treat of the Sacred Cenote of Chichen Itza. At no other archæological site in Middle America are the streams of Mayan and Mexican civilization so clearly and so dramatically blended as at Toltec Chichen, and it is here, also, that history begins to transport descriptive archæology into a realm of human deeds and personalities. These were the abiding interests of Tozzer's scientific life: Mayan and Mexican archæology and an appreciation of this past as revealed in the richness of historical and ethnological context.

Professor Tozzer's role as a leader in the field of Middle American studies is well known, and there is little need to point out that behind these present volumes lies a half-century of experience and preparation. His Lacandon ethnology, Maya Grammar, Mayan and Mexican archæological researches, and the famous Landa translation have all led toward *Chichen Itza and Its Cenote of Sacrifice,* which stands as a climax to a career and as one of the great syntheses in Mayan and Americanist writings.

Many of Tozzer's colleagues and former students followed the progress of this work with close attention. He discussed it with them regularly over a period of years and, as a result of this constant exchange of ideas, he continued to rewrite and to incorporate new information well into the summer of 1954. This has been fortunate, for, painstaking as the author was, various details were still unfinished when illness forced him to lay the manuscript aside. As a number of scholars were conversant with Tozzer's plans and intentions, as well as with the subject matter, their timely services have made possible the finished and final text and illustrations offered here. Miss Tatiana Proskouriakoff has been outstanding among those who have helped. She not only worked with Dr. Tozzer before his death but has subsequently contributed paragraphs and passages throughout the book. These are bracketed and marked with her initials. In addition, she has also advised on various tables. Mr. Karl Ruppert checked the sources for all of the illustrations and read the galley proofs of the entire text. Mr. Ralph L. Roys also reviewed the galleys, particularly with reference to Aztec proper and place names, checked the bibliography, and accepted the difficult and important job of preparing the Index. Dr. S. K. Lothrop worked with Dr. Tozzer on the illustrations and read and checked the manuscript later.

The officers of the Peabody Museum were, indeed, fortunate in obtaining the services of Mrs. Margaret W. Harrison for the exacting editorial task. Her long experience as a scientific editor, with particular reference to archæology, gave her the specialized knowledge so necessary in this instance. In addition to editing the text, Mrs. Harrison laid out the illustrations and saw that they were properly keyed to the text. In this connection, she rewrote the captions. She also put the bibliography in its present form and inserted the appendix of correlations of Chichen Itza structure names and numbers, following the designations of Ruppert. Finally, it is she who has had full charge of coordinating the work of others and of seeing the manuscript through press.

Miss Avis Tulloch, artist on the staff of the Department of Archæology, Carnegie Institution of Washington, prepared the map (fig. 1), which is based on Ruppert's 1952 map of Chichen Itza.

During the course of preparation, over the past three years, Dr. J. O. Brew, Director of the Peabody Museum, has followed progress on the book at all stages. Both he and I wish to express our gratitude to all of those who have helped. We also take this opportunity to offer sincere appreciation for the aid we have received on this project, and on other museum ventures, from Professor Tozzer's widow, Margaret Castle Tozzer.

Alfred Tozzer was a vital force in Mayan and Americanist scholarship. Teacher, writer, and researcher, he was the generator of an intense enthusiasm for his subject. This enthusiasm never dimmed but burned as brightly after 50 years as it had in his youth. All of us who came after him and who stood, however briefly, in the circle of his light are made both joyful and humble by our memories of a man dedicated so wholly to knowledge and to life.

GORDON R. WILLEY
Bowditch Professor of Mexican and Central American Archæology and Ethnology
Peabody Museum, Harvard University

July 1957

AUTHOR'S PREFACE

To the Franciscan Bishop of Yucatan, Fray Diego de Landa (1524–79), goes the acclaim for having written in his *Relación de las cosas de Yucatan* one of the most comprehensive accounts of conditions in the New World as he found them in the middle of the 16th century. There is hardly a phase of life of the ancient Maya, of the Spanish arrival and conquest, and of the early Christianization of the natives that is not covered in this work.

Landa's *Relación,* written about 1566, was discovered and first published by Brasseur de Bourbourg in Paris in 1864, followed by seven other editions. The latest (Tozzer, 1941) contains discussion of the sources and details of the eight editions, together with a concordance of all previous publications of the Landa text. With the possible exception of Sahagun, no work on New Spain covers so adequately a similar or a wider range of subjects. In addition to the actual text, my edition includes over 1100 notes, comments, and additional documents. I particularly call attention to the syllabus, whose headings serve as a sort of Table of Contents for sections of this Memoir, especially for Chapter VI on "Sacrifice and its Rituals."

From about A.D. 300 to the present-day Maya and Lacandon a period of well over 16 centuries is studied in this Memoir. I wish, however, to point out that my reference to the contemporary Lacandon is not strictly correct. My research on this people took place in the early days of this century; since that time sporadic notices have been made but unfortunately no complete ethnological study of them has been undertaken. Modern social anthropologists have strangely neglected this last link with the past. There has been a marked deterioration in these once unique relics, and now it is too late to retrieve what they could have given us.

In this Memoir we are especially concerned with a sink-hole or cenote at Chichen Itza, as described by Landa, its religious importance in the life of the country, the ceremonies performed at its brink, and the offerings thrown into the pool as sacrifices to the rain gods. In 1881 the Frenchman Désiré Charnay made an unsuccessful attempt to dredge the "well." Intermittently from 1904 to 1907 Edward H. Thompson, United States Consul at Progreso, Yucatan, investigated its southern section, at the instigation of Charles P. Bowditch and under his auspices and direction. I have therefore only rightly dedicated this Memoir to these two men, both of whom deserve the greatest credit for the undertaking. The objects recovered from the Cenote of Sacrifice were ultimately given by Mr. Bowditch to Peabody Museum of Harvard University.

Of the many brief references to the work at the well, the first was by David Casares of Merida in 1905. Most of these references will be found in the bibliography.

The search in the Cenote of Sacrifice was concluded almost 50 years ago. At least part of the explanation of the very long procrastination by the Museum in publishing the results is due here and must be laid on my shoulders. From colleagues and, more timidly perhaps, from others have come protests regarding the delay, partly mitigated by the publication of the skeletal material by E. A. Hooton. This was done without my knowledge as one of the contributions of my friends and colleagues to *The Maya and their neighbors* (1941).

Two advantages have resulted from this long postponement. The first is that in these 50 years this manuscript has gathered not dust but the constant enrichment of facts, ideas, comparisons, and illustrations. The second gain has been due to the fact that, during the latter years, a decided advance has been made in the amount and certainty of our knowledge of the Maya area, its history, and its intimate connection with Mexican cultures to the north and with others to the south, especially in the fields of ceramics and art.

The general plan of publication on the Cenote of Sacrifice was to have first a short paper giving a background of its history and ritual, followed by treatises by specialists on the types of objects dredged from it. Since Hooton's report on the skeletal material mentioned above, the next, on the metals, was published by S. K. Lothrop in 1952. Reports are planned on other materials from the Cenote. The wealth of material in the Cenote collection, together with the great variety in classes of object, should make the series an excellent *catalogue raisonné* of most of the artifacts belonging to the later periods of Maya culture.

A glance through the Table of Contents, however, will show that the present Memoir has completely outgrown the original idea of being a short introduction to a series of volumes on the Chichen Itza Cenote and instead incorporates it as Chapters V and VI. To this is added a chapter (VII) on trade, as most of the Cenote specimens have origins far away from Yucatan. To give a substantial background to Chichen Itza and its position in the Maya world a short chapter (I) sets forth an outline of Maya archæology. An account of the site from its legendary beginning, its documentary and archæological history for almost a thousand years, comes in Chapter II. With increased age I have acquired what might be called recklessness, a defiance of the usual dates of events in the life of Chichen and of the Itza. In every case I have suggested them not as *the* answer to all the perplexing questions but as an offering to open discussion and to advance a new point of view of Chichen history. Needless to say, only some of these theories have been accepted by such of my colleagues as have read parts of the manuscript.

By far the greater amount of data at this site comes from the time after A.D. 1000, when influences from Mexico began to be felt. This makes it necessary, as in any archæological study, to take a comparative approach. Chapter III covers this from the viewpoint of architecture, geometric and representative art, including animals, plants, and men. Religion and the pantheon, astronomy, "monsters," and masks come next. Finally, the cults of human sacrifice, of the Jaguar-Eagle and the Ball Court, are considered as found in various parts of Middle America in the period under consideration (1000–1460).

The ethnic approach, the study of Maya and Toltec at Chichen, which I suggested over 25 years ago, is the subject of Chapter IV. The great increase in our knowledge of the Toltec at Tula, Hidalgo, has made the comparative material from that site of highest importance in both Chapter III and Chapter IV. The necessity for a subtitle, "A comparative study of contemporaneous Maya and Toltec," was obviously indicated.

Finally, it should be pointed out that the reader will find a good deal of repetition, made unavoidable by the interlocking approaches to the data. The eagle, for instance, is considered

under representative art and again under the Jaguar-Eagle cult. The illustrations and all reference material comprise Volume XII.

Here my aim is to thank some of the many who have rendered aid to the undertaking as a whole. Nothing more pointedly shows the length of time that this work has been in progress than the fact that a large number of those whose help is here acknowledged can no longer be aware of this fact. The dedication of this book to Charles P. Bowditch and to Edward H. Thompson expresses only a small part of what both Peabody Museum and I personally owe to these two men. Without the inspiration and aid of the first and the unflagging zeal of the second this series of studies would never have existed. With them should be included Walter Austin and Charles Peabody, who aided the work in its later stages. The late Mr. and Mrs. William James of Merida were for many years friends of all Maya students in Yucatan; the late Professor Leon L. Cole was in Yucatan with me during part of the first year of the dredging operations.

Dr. H. J. Spinden played a prominent part in the early writing of the introduction; some of his material has been used in describing the early archæologists at Chichen. Many of his illustrations in *Maya art*, also published by the Museum, have been re-used here.

To the Director of the Museum, John Otis Brew, I owe thanks for his encouragement and for his willingness to allow me every facility in completing this Memoir.

My successor in this field and the first Charles P. Bowditch Professor of Central American and Mexican Archæology and Ethnology, Gordon R. Willey, has been of great help in showing me the way through the constantly changing modern approaches in its nomenclature of American archæology, the point of view, and the demographic emphasis now considered so essential to any archæological study.

To the Department of Archæology, formerly the Division of Historical Research, of Carnegie Institution of Washington, I find it difficult properly to express my indebtedness. The former director, A. V. Kidder, and the present one, H. E. D. Pollock, have always looked kindly upon the time their staff members spent in aiding me. Texts, both before and during publication, and unpublished photographs have been granted me. Cuts of K. Ruppert's illustrations have been turned over to the Museum and a great many are used in this work. Several parts of this Memoir have been read by members of the Carnegie staff. First place on this list of advisers, counsellors, and friends belongs to Ralph L. Roys. I have leaned heavily on his astute reading and interpretation of early Maya history. To Tatiana Proskouriakoff in Maya art, to Karl Ruppert in architecture, to George W. Brainerd in ceramics, and to J. Eric S. Thompson in varied fields I owe ideas and criticisms. Margaret W. Harrison, editor of the Department of Archæology, has always seen that I was provided with advance proof sheets of their publications. Among other staff members and associates of the Carnegie Institution who deserve special mention are A. Ledyard Smith and Robert E. Smith, John Bolles, Edwin M. Shook, Lawrence Roys, and David De Harport.

The investigations of the Mexican government at Chichen Itza and at Tula will be mentioned later. Here I wish especially to thank Eduardo Noguera, a former student, and Jorge Acosta, both of whom have provided me with important data and photographs, especially those dealing with Tula. Pierre Matisse and Earl L. Stendahl have also sent me illustrations of Tula specimens.

To Tatiana Proskouriakoff, Kisa Noguchi Sasaki, Helen Cabot, Avis Tulloch, and Katharine Willey, I owe thanks for drawing many of the illustrations. For editorial work much acumen and patience were shown by two of the Peabody staff, Natalie B. Stoddard and Martha B. Smith.

To the many others to whom I am indebted acknowledgment will appear in the appropriate place.

ALFRED M. TOZZER

September 1954

NOTE

The Table of Contents appears at the front of Volume XII.

INTRODUCTION

DISCOVERY OF YUCATAN

In his fourth voyage to the New World in 1502, Columbus was the first European to come in contact with the natives of Central America. Nine years later some Spaniards under Valdivia were shipwrecked on the northeast coast of Yucatan (their subsequent and unfortunate history will be discussed later). In 1517 the first Spanish expedition, under Francisco Hernandez de Córdoba, landed on the peninsula, followed in 1518 by Juan de Grijalva and in 1519 by Hernando Cortés. It was another ten years (1527) before the actual conquest of the country began, and for almost 20 years the Indians held out with varying degrees of success against the efforts of the Adelantado Francisco de Montejo, his son, and his nephew.[1]

CHICHEN ITZA

We are primarily concerned with a single ancient city of Yucatan, that of Chichen Itza, a capital of the Maya in the northeastern part of the peninsula. This settlement had a longer recorded history than had any other city, ancient or modern, in all America (see fig. 1).

Most of the Maya sites have names, often in manufactured Maya, bestowed upon them by travelers and archæologists, but Chichen Itza is one of a very few whose name is ancient. Chichen Itza, or more properly Chichén Itzá, signifies in Maya "the mouth of the well (or cenote) of the Itza," from *chi,* mouth, *chen,* well (more correctly written *ch'en*), with the glottalized *ch*.[2] According to the theory offered here, the Itza are not to be identified with the Toltec, who entered the country and left their unmistakable imprint on Chichen, beginning about 1000. They are here regarded as a relatively unimportant Mexican group who arrived in the city a few years after it had been "destroyed" about 1200. Thus this site would seem to have carried Itza as part of its name only after about 1225.

There are two natural sink-holes or cenotes: one was named Xtoloc and was a source of water for the inhabitants; the other was primarily a holy place of sacrifice, to which pilgrimages were made from all over the peninsula and from more distant places in the later history of the site. We are here dealing with the latter, the so-called Cenote of Sacrifice or Sacred Cenote.

NATURAL FEATURES

The entire northern portion of the peninsula of Yucatan, now divided into the Mexican states of Yucatan and Campeche and the territory of Quintana Roo, presents remarkable uniformity in topography, geological formation, and vegetation.

Topography

Northern Yucatan is a vast plain, rising slightly toward the south. About 50 miles from the coast, a series of low hills called the Puuc (averaging from 400 to 500 feet in height) extends northeast from Campeche to Maxcanu and then turns southeast towards Peto. The coastal shelf runs a long distance north so that good harbors are few. Shoals line the west and north coasts and a barrier beach lies almost continuously along the northern part of the peninsula, with mangrove swamps bordering the lagoon formed by the reef. At the base of the peninsula on the southwest is the great bay, Laguna de Terminos. On the east coast are the bays of La Ascension, Espiritu, Santo, and Chetumal. The largest island and one which figures in the present study is Cozumel, off the northeastern coast of the peninsula.

Geology

Heilprin (1891) describes the geology of the country:

> The rock formation over the greater part of the plains, i.e., over the peninsula north of the hills, is of a gray or white shell limestone highly indurated or sub-crystalline in local areas. . . . Secondary deposits of calcite in the form of veins, crystals and nodular masses are abundant. . . . The rock surface, however, is visible over a very large part of its extent, being but scantly covered with soil and supporting only an indifferent vegetation.

These limestone deposits on the northern plain are Pliocene and Postpliocene (see R. L. Roys, 1943; J. E. S. Thompson, 1950).

Landa (1941, p. 18) speaks of "an extraordinary abundance of stone, lime and a certain white earth which is excellent for buildings," the white earth being *sac cab,* a corrupted form *sah kab,* "white earth." E. H. Thompson (1897a, p. 5) writes of it as "of a peculiar character and served the ancient builders, as it does those of the present day, as a building material to mix with lime in the place of silicious sand which is practically unknown in Yucatan." Morris (1931, 1:220–23) describes making lime in connection with the work of restoration at the ruins of Chichen Itza.

The natives were able to obtain flint, which they used for the heads of small lances, and they undoubtedly employed it in working the limestone into blocks and carving them, as there is no metal found in the peninsula.

Forestation

The northeastern corner of the peninsula in the territory of Quintana Roo is covered with "tall green forest" with the "tall dry forest" touching this area, on the south, along the eastern coast. Two-thirds of the remaining northern part of the peninsula is covered with "dry scrub forest" (Lundell, 1934). The true tropical rain forest does not begin until into the southern third of the peninsula. In early times, trails or roads connected Yucatan with southern Mexico to the southwest and ran down the east coast as far as Chetumal.

Until very lately, dense forests cut off all communication with the base of the peninsula. Roads now join the main centers in northern Yucatan and, in the west, go as far as Champoton. A railroad runs from Merida to Allende across the river from Puerto Mexico and thence on to Mexico.

WATER SUPPLY

Natural Sources

Rivers. Landa (1941, p. 187) writes:

> According to the sage, one of the most necessary things in the life of man is water and so great is the need of it that without it neither does the land produce its fruits nor can men be sustained,

and owing to the want in Yucatan of the abundance of rivers which the neighboring countries have in great abundance, because there are only two—one the Rio de Lagartos, which flows at the end of the land into the sea, and the other the Rio de Champoton—both brackish and bad water. . . .

The first is shown on some maps on the north coast. It is properly not a river but a tidal lagoon or *cienega*. This long, shallow waterway connects Lake Lagartos with the sea at the western end of a long neck of land, on which there is a settlement called Lagartos. On some maps, to the west of this point, is shown a river, Holchan, which does not exist.

The second stream mentioned by Landa, the Champoton, is the only real river in the whole peninsula of Yucatan. It is about 75 miles long, flowing from Lake Jobonochac westward, entering the ocean at Champoton where both Cordoba, in 1517, and Grijalva, a year later, had unpleasant encounters with the Indians. The latter named the site Puerto de Mala Pelea. Just to the south is a short stream called Holha. Following northward from Champoton around the northern coast of the peninsula, there are no other rivers until one reaches the Manatin, flowing into Ascension Bay on the east coast, and two streams connecting Lake Bacalar with the ocean.

LAKES. There are few lakes in northern Yucatan. At Coba, about halfway between Chichen Itza and the coast opposite Cozumel Island, is a line of four small lakes; several others are found in this territory of Quintana Roo. In the central part of the peninsula is the largest body of fresh water to be found in the country, Chichankanab, "small sea," about 20 miles long by less than 3 miles wide. Of the other lakes we note Ocon from which the Manatin River flows, north of Ascension Bay, and Jobonochac, on the west coast, the source of the Champoton River.

CENOTES. Depending again on Landa (1941, p. 187), we learn:

> God provided Yucatan with many very nice sources of water, some artificial and others provided naturally. Nature worked so differently in this country in the matter of rivers and springs, which in all the rest of the world run on top of the land, that here in this country all run and flow through secret passages under it. . . . On land God provided openings in the rock, which the Indians call cenotes, which reach down to the water through the cut in the living rock. . . . These cenotes have very nice water and are well worth seeing, for there are some of rock cut in the living rock down to the water [3] and others with mouths which God created, or accidents of thunderbolts, which often fall, or some other cause.

In many parts of northern Yucatan the most abundant source of water is found in these sink-holes or, in Maya, *cenotes*, usually written with an inverted *c* or spelled *dzonot*. As previously noted, the word *chen*, "well," is sometimes used to describe this natural source of water.[4]

Many of the ancient centers were built near or around cenotes, a custom followed by the Spaniards, who placed their towns whenever possible in the vicinity of these excellent wells of water. Molina (1896, p. 180) gives a list of 34 cenotes known before the conquest, but as Casares (1905, p. 224) points out, this is not complete. The names of cenotes at which human sacrifice took place, according to testimony given at the trial for idolatry in 1562, are given later.

These cenotes are, of course, directly the result of the limestone formation of the country and erosion. Cole (1910) explains the origin of these sink-holes as follows:

> There can apparently be little doubt that these peculiar water holes were formed, in the first place, by the solution of the rock, so as to make great underground dome-shaped caverns. The surface rock, as is common in limestone regions, is much harder than that below. The water therefore makes its way down through crevices in the resistant upper layer causing comparatively little solution; but when it encounters the softer strata below, its solvent power is exercised and large caverns with roofs intact are the result. In the walls of the Sacred Cenote at Chichen some of the lower strata are so soft that the rock can be crumbled in the hand almost like dust. The essentially horizontal position of the strata may be another important factor in giving the cenotes their vertical walls and few horizontal passages. The dip of the strata is so slight that it has probably been easier for the water to work its way directly down than to run off laterally. Either by the too great extension of the cavern or by the gradual sapping of the roof, the latter eventually collapses, and the cenotes . . . are the result. One has but to witness the effects of a heavy tropical thunder storm upon the steep walls of one of these cenotes to realize how important an agent is erosion in their subsequent development; and considering the number of stones that go rolling down even during a brief storm, it seems strange that the walls are not worn back faster. They wear back first at the top, the lower part of the wall remaining vertical; but the process of wear is continued until the cenote consists of a pool of water at the bottom of a funnel- or basin-like depression.

A final stage is often reached when the debris from the talus slope fills up the opening with no water available. Several of these dry cenotes are found at or near Chichen Itza.

Figure 2, from Cole, shows a schematic north-south section of the peninsula, from the hills or the Puuc to the coast, illustrating types of caverns in the hills, relations of water level, subterranean connections and the *ojos de agua* in the ocean. Also from Cole is figure 3, depicting stages in the evolution of a cenote, as just described.

A type of water supply noted at Chacchob appears at first to be a well with a curb and a small amount of fill. On examination, the opening is bottle-shaped and reaches down to a cenote below. "Deep rope-cuts in the rim of natural rock below the artificial fill indicate centuries of use and almost surely date from the period of the ruins" (Pollock and Stromsvik, 1953).

Often several cenotes are found in a group. Within the walled enclosure of Mayapan, 19 of these "wells" have been reported.

OJOS DE AGUA. The limestone formation is also responsible for another hydrographic phenomenon. Along the northern coast springs of fresh water bubble through the sea water. Landa (p. 187) reports, "almost all the coast is full of springs of fresh water, that rise within the sea, and it is possible to get water from them as I have done when the ebb tide leaves the shore almost dry." The natives do better than this; they go out into the ocean in canoes and place a hollow tree trunk over the opening through which the fresh water issues, and thus bring it to the surface where it is collected by those in the boats. Spinden, on the Peabody Museum expedition of 1926, found at Escaret and Chacahal, on the east coast of the peninsula, underground streams of fresh water which break through the coral reefs on the limestone shore.

In the *relación* of Merida (RY, 1:48) is a good description of these *ojos de agua*:[5]

> For more than one hundred and twenty leagues of the coast of these provinces, there issue many springs of very sweet water—within the sea most of them appear when the tide is low; there is particularly a spring and source of the said cenotes which comes out on the coast of Dezama, port of the *villa* of Valladolid, a league out in the ocean where within the rocks where the said water emerges the natives place a tree called *palma* whose bark is very hard and within spongy as cane and four or five fathoms long and through the hole the sweet water rises with so much velocity and one sees it from a very long distance and here ships and canoes come to get water.

SARTENEJAS ("frying pan," or *holtun*, "hollow stone"). These are natural hollows or cavities which fill with water during the rainy season. The supply sometimes lasts into the dry period but seldom until the rains reappear. Casares (1905, p. 217) gives their dimension as "five and six yards long, two to three wide, and two to three deep. . . . Near Xul there is a sarteneja 90 feet in circumference and 10 deep." Some small ranches have no other source of water.

AGUADAS OR AKALCHES ("water hole"). Casares divides this type of water supply into those that are natural and those that are artificial. The natural variety are simply sink-holes or low places, the bottoms of which have been covered with the insoluble parts of limestone and thus hold water for a considerable time. The aguadas are all filled by the end of the rainy season and furnish an abundant water supply. In the exploration of ruins in the central part of Yucatan and in the Peten to the south, sometimes no other source for water is obtainable. Casares (p. 217) writes of these natural *aguadas* as following a "broken line that can be traced from the district of Tizimin in the northeast, and goes through those of Espita, Yzamal [and] Sotuta. . . ."

ARTIFICIAL RESERVOIRS

AGUADAS. Casares (1905, p. 218) writes of this type:

> The artificial aguadas are found in the high hilly ground of the interior at the bottom of the basins formed by the hills, where the rain water comes naturally to be deposited. Some have a bottom made out of stones and some have not such stones, and they are of all sizes—true works of art they are—that show the ingenuity and attainment of their builders. The bottom is made with large blocks of stone with a plain surface several layers deep, and so set alternately as to cover the joints, which are in most cases filled with clay, though this material is not always found in their vicinity.

CASIMBAS ("buckets"). Wells or pits are also found dug into the bottom of the *aguadas* or reservoirs, thus insuring a larger storage capacity for holding the rain water.[6] Casares (1905, p. 218) continues: "The water filters into the wells or pits and when the supply that fills the aguada is exhausted, these casimbas come to the rescue. These bodies of water are so considerable that in years of protracted drought, not only the population of the ranchos near by, but also that for miles around get their supply from them."

CHULTUNS. A common method of conserving rain water was to store it in subterranean cisterns called *chultuns*. In many sites, far removed from cenotes or other natural supplies of water, the natives excavated out of the soft limestone a kind of cistern often in the form of a bottle or a room with vaulted top and the walls made water-tight by layers of plaster. The ground around the entrance to the *chultun* was often paved, and a round stone usually closed the opening at the top.

In regions to the south, the *chultuns* often had a lateral chamber and seem to have been used for burials and possibly for storage (E. H. Thompson, 1897, pp. 5–6; Tozzer, 1913, pp. 191–95). Landa (1941, p. 96) speaks of "harvesting the maize and other grains, which they keep in fine underground places and granaries, so as to be able to sell (their crops) at the proper time."

WELLS. We have already heard from Landa (1941, p. 187) that God provided Yucatan with an artificial and a natural water supply. This raises the question whether, in the days before the conquest, the Maya actually dug wells. There are some ancient names of towns in Yucatan which include the word for well, *chen*, as Hopelchen, "five wells," and Bolonchen, "nine wells"; these almost certainly refer to artificial excavations. But in some cases and particularly at Chichen Itza, *chen* means "cenote" not "well." Tomás López (Muñoz Papers, vol. 5) writes of the wells and cenotes of Yucatan.

Torquemada (1723, 3:4), in his account of the Cordobo expedition, refers to a hill at Champoton behind which was a well. It seems probable that this source of water is the same as that mentioned by Landa in his description of the Grijalva *entrada*. Juan Diaz, in his "Itinerary of Grijalva," also speaks of this well.

R. L. Roys points out a place called Panabha, often contracted to Pamba, which can hardly mean anything else except "dug to water." The best-known pueblo of this name is northwest of Tizimin. Another place (RY, 1:155) is named Panabchen, meaning "dug well."

Still better evidence of wells in pre-Spanish times is in the *relación* of Dzidzantun (RY, 1:206) where we read: "In all this land, there is no river, and the waters which they drink in this (country) are from wells made by the ancient natives and by the Spaniards here afterwards because in whatever place they dig they will find water because the land is all rock."

Landa (pp. 62–64), after speaking of the houses of the rich and the poor, adds, "and the wells, if there were but few of them, were near the houses of the lords." Herrera (4, 10, III) speaks of public wells in the plazas.

Landa (p. 188) mentions the fact that those who did not have cenotes "made wells, and as they did not have tools for digging wells they (the wells) were very poor. But now not only have we given them the skill to make good wells, but also very nice draw-wells with tanks from which they take the water as from springs."

In the southern part of Chichen, R. L. Roys (1939, pl. 14,*b*) notes an old well roughly faced with stone, in the top of which grooves made by ropes appear. He feels sure this well goes back to pre-Columbian times. Shook pointed out to me an old well shown in a low place north of the Temple of the Three Lintels and another to the northwest of the main house of the hacienda.

In a Report and Census of the Indians of Cozumel, dated 1570 (Roys, Scholes, and Adams, 1940), we learn that the island "has very fine water in the wells and cenotes." The former appear to have been dug in pre-Spanish times.[7]

An ancient device for collecting rain water was discovered by the United Fruit Company at Quirigua. "Large jar-shaped pottery vessel with perforated bottom [was found] sunk to the level of ground-water and set in a mass of rocks. The jar was connected with the surface by means of sections of cylindrical pottery pipe. The grouting of rock permitted water to filter through to the jar, at the same time excluding silt. Access to the collected water was had through the cylindrical pipe" (Morris and Stromsvik, 1934).

From Spanish times onward the main water supply came from wells. Fifty years ago northern Yucatan was called the "land of the windmills." Now electric pumps have taken the place of air-driven ones.

As one travels southward, the land slopes gradually upward so that water is found at increasing distances from the surface. In Merida wells are about 27 feet deep. Casares (1905, pp. 215–16) states that the wells are 28½ inches deeper per mile southward.

Within that distance of 40 to 60 miles from the seacoast their depth ranges from 40 to 60 feet. At the first Sierra in Muna, Ticul, and Tekax they are 90 feet deep. Beyond the first Sierra . . . the wells are from 200 to 240 feet deep . . . . On the way from Hecelchakan to Bolonchen you find Montebello, a rancho that has a well 270 feet deep, and farther to the southeast Chicmuc with one 312 feet deep, Yalmon with one 468 and Uechil with another about the same.

Artesian wells sometimes reach much greater depths than the deepest well known to Casares, which went down 552 feet.

With this glance at the natural features, most important to our study of Yucatan, we now turn to a short review of Maya archæology, its geography, its content, general considerations of its mainly religious background, and the various stages in its history.

I

MAYA ARCHÆOLOGY: AN OUTLINE

The present Memoir covers only a part of Maya history. The beginnings of man's existence in Middle America and the Archaic cultures do not concern us, but a general review of the first stages of human occupation is desirable. Early Classic is seldom called upon for reference, but Late Classic furnishes an abundant source for one part of our comparative study, that is the era of Chichen I. The post-Classic stages are the main subject of this Memoir: the periods of Mexican infiltration, an intrusion commonly called Toltec. These cover Chichen II and III, with an end of the old life in Chichen IV. The outline which follows covers the most important features of Maya archæology as a whole.

1. GENERAL LOCATION

The ancient Maya civilization covered sections of the Mexican states of Tabasco and Chiapas, the country of Guatemala except for some of the Pacific slope, British Honduras, western Honduras, parts of western Salvador, together with the whole peninsula of Yucatan—which is now divided into the Mexican states of Yucatan and Campeche, and the territory of Quintana Roo.

2. MAYA LANGUAGES

The territory occupied by the Maya-speaking peoples is, in general, much the same as that just described. The linguistic area, however, reached the Pacific coast in Guatemala, broken in some places by small enclaves of Nahuatl-speaking Pipil and a few others. With one exception the area was contiguous.[1]

The language spoken by the ancient Maya is now believed to belong to one of the four main linguistic groups in Middle America: Macro-Penutian, with which is also placed Aztec-Tanoan, Totonac, and some others.

The great Maya groups or Mayance languages are usually divided, first of all, into those of the Tierra Baja and the Tierra Alta. From the first group Huastec and Chicomuceltec split off. The main group is further subdivided into (a) the Maya of Yucatan or Yucatec, Lacandon, and Mopan; (b) Choloid with Chol (Cholti) Chorti, Chol Lacandon, and Chontal of Tabasco; (c) Chañabaloid with Tzeltal-Tzotzil, Chañabal, and Chuj; and (d) Motozintleca with Jacaltec and Motozintlec.

The Quichoid languages of the highlands are divided into (a) Mam; (b) Aguacatec; (c) Quichel with Quiche (Quiche, Cakchiquel, Tzutuhil, Uspantec), Ixil, and (d) Kekchom with Kekchi and Pokom (Pokoman and Pokonchi).[2]

3. GEOGRAPHICAL PROVINCES

Solely for purposes of description, we may group the areas where ruins are found, with a fair degree of definiteness and by some architectural criteria.[3]

Central Lowlands

These include (1) The Peten—northern Guatemala, including the Department of Peten, the Peten lakes, and across the boundaries into southeastern Campeche and north-central British Honduras. In this area are the large centers of Tikal and Uaxactun. (2) Usumacinta Valley—the high Usumacinta and southern British Honduras; the Middle Valley with the major sites of Yaxchilan and Piedras Negras and sites in Chiapas, including Palenque; and the lower valley with Comalcalco and other remains in Tabasco. (3) Chiapas Highlands—Tonina, Comitan, etc.

Southern Area

This includes southern Guatemala with Quirigua and the Motagua Valley; northern and western Honduras with Copan and the Ulua Valley; and western Salvador.

Central Highlands

This includes central Guatemala with the famous site of Kaminaljuyu, the Alta Verapaz and Quiche regions, excluding in general the western slope of the mountains to the Pacific.

Northern Lowlands (Yucatan Peninsula)

These include the entire peninsula of Yucatan and may be divided into (1) southwestern Campeche; "Los Rios y Lagunas" and including the southern part of the "Costa" of Ruz; (2) Rio Bec area in southeast Campeche and the adjoining region in western Quintana Roo; (3) Los Chenes ruins generally found in northeastern Campeche; (4) the Puuc or Yucatan-Maya territory; northern Campeche and the southern part of the state of Yucatan with the important sites of Labna, Uxmal, and many others; (5) north-central Yucatan with Mayapan, Ake, Izamal, Chichen Itza, and other sites; (6) eastern Yucatan with Coba; (7) East Coast (Territory of Quintana Roo) with Tulum and other ruins.[4]

4. MIDDLE AND SOUTH AMERICA

The heartland of the civilizations of the New World, called by Kroeber "Nuclear America," has aroused many questions of its possible internal relationships.

Recent archæological interpretations of a "New World Formative" (Steward, 1948; Willey, 1948, etc.; Strong, 1948) are reminiscent of Spinden's (1917) bold "Archaic hypothesis." The general thesis is a technologically uniform cultural era, based on maize agriculture, sedentary village life, and ceramic and textile crafts, as underlying the more spectacular developments of both Middle America and the central Andes. The nature of historical interrelationships in this wide area is far from clear, but it seems reasonable to suspect that the Archaic or Formative cultures of "Nuclear America" are linked with each other, as attested by the distribution of domesticated plants. Yet archæologists are unable to demonstrate inter-areal connections by conventional means. Art styles of both Archaic and later cultures have been shown to be very limited geographically. Willey (1953b, p. 377) writes:

The whole of the lower Central American, Colombian, and Ecuadorian area is chopped into a great number of small stylistic

regions. Their cross-relations, one to the other, have not yet been worked out, but it seems unlikely that any major stylistic horizon markers will emerge. The relationships from region to region, again, are those of similar technologies and techniques, including such features as pottery vessel forms, which have a general traditional but not a stylistic bond.

Commenting further, Willey (1953b) has differentiated between style and content as bases for historical synthesis. By content he has in mind technological tradition. Such content, such technologies, reach beyond the borders of styles and have certain value as criteria of relationship. Metallurgical techniques are an example. There is little doubt that, within the area under consideration, these derived from South America, whence they spread northward. Unlike a specific style, metallurgy cannot be used as a chronological horizon marker, but it demonstrates contact. It is the nature of the contact that we do not know and cannot yet reconstruct as process.

These questions as to what were the relationships and contacts among widely separated peoples of Nuclear America are not elucidated by racial or linguistic distributions. Little is known of the former; study of the latter shows only that culture and language were not welded into historical units. Languages of the Chibchan stock range from Colombia as far as Nicaragua and eastern Honduras; but this distribution is not paralleled by a uniform culture. Similarly, linguistic kinsmen of Middle American tribes, living as far south as Costa Rica, possessed cultures quite distinct from those in Mexico or the Maya area.

The interrelationships of the high cultures of the Americas have also been studied in a nonhistorical light. Kroeber (1948) has raised this issue, and Steward (1948) has presented a case for a functional-developmental explanation. Assuming the diffusion of a common basic pattern (maize agriculture, pottery technology, etc.), did the stages of internal development in Peru and Middle America follow parallel courses "through some law of internal necessity or momentum," as Kroeber asks? Or are we reading into the record a developmental or cyclic parallelism that has its real foundations in historic interrelationships as yet unperceived by the archæologists? I recognize these as crucial lines of inquiry in Americanist studies. Although the case for close historical relationships throughout the area is, as yet, supported by only limited data–and these of only a very general similarity in content–I am skeptical of the developmental approach. One such aspect of these interpretations is that of a "militaristic era" following that most commonly known as Classic or Florescent. This thesis does not seem to hold, as will be pointed out later, even within the confines of Middle America. (See also Kroeber, 1930; Lothrop, 1940; Kidder II, 1940; Willey, 1954.)

5. CONTENT OF MAYA ARCHÆOLOGY

The material for this general review is both extensive and varied: architecture of stone and stucco, monuments of many kinds, and objects of art and methods of decoration. For the Classic period, hieroglyphic texts are abundant over the greater part of the central and southern lowlands. Ceramics, known mainly from ceremonial vessels, are of great variety. The minor arts are especially well represented in the collections recovered from the Sacred Cenote at Chichen Itza.

The three pre-Columbian manuscripts, as will be seen later, furnish a store of information regarding rituals, divinatory rites, and astronomical events.

Maya archæology may be studied chronologically from the dates in the hieroglyphic texts and the development of the glyphs themselves; from the art of sculpture in its various forms; from decoration, architectural plan and construction, and ceramics. (Spinden, 1913; Thompson, 1950, and his bibliography; Proskouriakoff, 1946, 1950; Brainerd, *passim*.) Three secondary sources for this study will be extensively used in parts of this work: the so-called Books of Chilam Balam, their chronicles, prophecies, and allied texts; writings of sixteenth-century Spanish authors; and ethnological data gathered from the present native population.

6. GENERAL CONSIDERATIONS

Religious Aspects

Theocracies. There seems to be general agreement that "the Classic Mesoamerican pattern of theocratic, hierarchial and autocratic government, with wide cleavage between the upper classes and commoners, highly developed ritual, prosperity (as revealed in luxury goods), relatively peaceful conditions, open defenseless cities, widespread trade and prosperity" (Wauchope, 1953) existed over a great part of the central and southern districts of the Maya area.

Priestly hieroglyphic writing. Landa (1941, pp. 27–28) tells us:

> The natives of Yucatan were as attentive to the matters of religion as to those of government, and they had a high priest . . . . He was very much respected by the lords . . . [who] made him presents and all the priests of the towns brought contributions to him and his sons or his nearest relatives succeeded him in his office: In him was the key of their learning . . . . The sciences which they [the priests] taught were the computation of the years, months and days, the festivals and ceremonies, the administration of the sacraments, the fateful days and seasons, their methods of divination and their prophecies, events and the cures for diseases, and their antiquities, and how to read and write with the letters and characters.

There are references to the fact that, even 50 years after the arrival of the Spaniards, the knowledge of the hieroglyphic writing was a possession only of the priests, the sons of priests, "some of the principal lords . . . from curiosity, and the younger sons of the lords . . . if . . . they had an inclination for this profession" (Tozzer, 1941, n. 158). "Not all the priests knew how to describe it (the writing)," adds Landa.

Religious architecture. From Classic times onward the stone structures seem, with few exceptions, to be connected with the priestly cult. There are two main types of elaborately decorated buildings: one, the temple, often on a pyramidal substructure, with a formal plan, usually centering in an inner apartment or shrine; the second, in most cases, containing a considerable number of rooms, grandiloquently termed by Maler "the sacerdotal palace." The exterior of both types does not seem to show any great difference in character or elaborateness of decoration. In the Great period at Tikal and Nakum (Tozzer, 1911; 1913) and at many other sites, notably Uxmal, a direct connection between the two types is evident: the temple-pyramid near another structure almost certainly the residence of the clergy.

The typical assemblage of most of the great centers in Classic times was one or more large plazas around which the most important buildings were grouped, often with stelae and altars in front of the structures. These were religious, not civic, centers.

Besides the temple and associated structure for priests, only two types can be unmistakably identified: the ball court and the so-called sweat-house, found in Classic as well as later times. Even these almost certainly had a religious function, as will be considered later.

Religious art and decoration. The general theme of most of the stone carving in all periods of Maya history, together with the codices, is directed mainly toward religion: the heavens, death and the next world, rain, fertility, and prognostications. Even the cover of the famous tomb of a great chieftain or a great priest, recently discovered at Palenque, has carved upon it a tree and other symbols almost identical with the design on the wall of the inner shrine in two of the Palenque temples.

The serpent and the jaguar, the rain god Tlaloc, the lotus (symbol of death), the year sign, astronomy, Venus, all are common subjects of ceremonial art; most date from Classic times and continue, especially among the Aztec, until the coming of the Spaniards. In the later Mexican periods, many new ideas in art and in religion naturally add other features.

Secular Structures

The buildings of the laity of first importance seem to be the "houses of the lords." The interpretation of the colonnade and the patio-like building in connection with residence will be taken up in connection with structures belonging to the later periods at Chichen.

The "palace" in Mexican archæology. Unfortunately, in the Maya area, there is nothing comparable to the house or "palace," composed of many rooms, reported at Teotihuacan and its vicinity by Batres (1906) and by Linné (1934, 1942). The latter found at Xolalpan a structure of 37-odd rooms, at Tlamimilolpa, one of about 168 rooms, both belonging to the Mexican Classic horizon and possessing courts and rooms decorated with frescoes. Buildings with somewhat similar plans were found in eastern Puebla and northwestern Tlaxcala.

Many years ago Charnay (1887, pp. 105–07) found at Tula the ruins of a "house" and a "palace," the plans of which suggest the structures of Teotihuacan. Acosta (1944) shows the plan of another (see also Ruz, 1945a, pp. 57, 79, 87). These edifices belong to the post-Classic period.

In the time of the Aztec, the sumptuous palace and other buildings of Montezuma are a matter of recorded history (Bernal Diaz, 1, VIII).

Another kind of settlement, also dated in Aztec times, is the *chinampas*, the garden plots associated with *tlateles* and found at the edge of lakes in the Valley of Mexico. These are raised plots, usually covered with grass, and were ancient settlements (Apenes, 1943).

Yucatan secular buildings. The early accounts have a little information on this subject, and later I shall mention the search for structures which might be identified as secular in nature. Where are the "houses of the lords," the "men's house," markets, the *casa principal* or municipal building, the *tecpan*, possible military establishments, and the housing for pilgrims and for traders? The domestic house alone is unmistakable. Practically all our information is derived from frescoes and from miniature houses shown on a few of the stone façades, except for reports of work by Carnegie Institution on these structures at Mayapan. Here, in 1951 and 1952, Ruppert and A. L. Smith investigated over 2300 house mounds (described under Chichen III and Mayapan).

At Chacchob, a site dating from the Puuc or Yucatan-Maya period, house platforms with a bench and altar have been reported (Pollock and Stromsvik, 1953).

Secular decoration. Very little of this exists outside a few frescoes, mostly at Bonampak and Chichen Itza. Prisoners and captives shown on many of the stelae and in other stone carvings are probably victims intended for sacrifice or slavery.

In the later periods, battle scenes in fresco or on the gold disks are usually accompanied by human sacrifice. The ball court in the same era is closely associated with sacrifice and the Jaguar-Eagle cult.

Wauchope's work on house mounds will be mentioned later. His report on Zacualpa, Lothrop's on Atitlan, Maudslay's on Rabinal, and Shook's on Poptun are others which mention domestic structures.

Burials. Besides tombs and other ceremonial disposition of the bodies, bones, or ashes of persons of importance, very little evidence remains on the burial customs of the common people. These will be considered in Chapter III-3.

Settlement Patterns

Excepting religious architecture and, usually, our own interpretation of the symbolism, our ignorance of everything regarding the way of life of the ancient Maya is very great indeed. A new approach is being planned by Willey, similar to the method he pursued in South America. "The nature of total settlement reflects," he writes (1953), "not only the natural environment but the way in which that environment was exploited for the maintenance of a society. The physical form of the community not only tells us something about technology but it offers an insight into the various institutions of a social, political or religious character." Willey, Bullard, and Glass are at work on this problem in British Honduras.

There seems little doubt but that some regions were populous (Termer, 1951). Several references to the density of population in Yucatan in some of the early authorities are given in Tozzer, 1941 (p. 294); one only will be mentioned here. Herrera (4, 10, III), in speaking of the time soon after the conquest, writes: "After the division of these lords, for more than twenty years there was such abundance in the land that the people multiplied so much, according to what the old men told, that the whole province seemed one pueblo. And then they dedicated themselves most to building temples, and for this reason there is so great a number of them."

In 1909–10, R. E. Merwin and I were on an archæological expedition in the Peten for Peabody Museum. We kept a timetable on the various trips made in this area, noting, as we traveled along on muleback, the presence beside the trail of small collections of mounds, single mounds, and *chultuns* (shown in a sketch map in Tozzer, 1913, pl. 31). "No doubt many more sites will be found along the same paths on further investigation, to say nothing of the mounds in the intervening territory." The sketch map gives a rough idea of the concentration of mounds on the trail leading to Tikal within a distance of about 10 miles from the city, and the abundance of earthworks in the vicinity of Holmul and of Honradez. Some in-

ference can thus possibly be drawn as to the density of population here.

By a study of house mounds in an area at Uaxactun, Ricketson and Ricketson (1937, p. 15) made an attempt at estimating the density of population there.

An excellent start has been made by Ruppert and Smith and by Bullard in determining the settlement pattern of domestic structures at Mayapan.

URBAN CENTERS. Our ignorance on this subject is great. Some data are available in Mexico, but in the Maya area religious concentration alone is understood. The new archæological approach will undoubtedly produce results along this line. Hester (1952, p. 267) writes: "Though increasing social elaboration, as evidenced in the architecture, mythology, and Spanish chronicles, certainly required the presence of the Maya in urban centers, it also required that they go farther afield in the satisfaction of their consequently heightened economic needs, and that they intensify the technology already at hand."

MOBILITY

In describing the "many beautiful buildings" in Yucatan, Landa (1941, p. 18) writes:

> These buildings are very close to one another and are temples; and the reason that there are so many of them is that the people changed their dwelling places many times; and in each town they built a temple . . . . [On p. 171:] . . . this nation must have been subject to certain lords, who were desirous of giving them [the people] constant occupation and . . . they occupied them in this work; or . . . as they were such worshippers of their idols, they distinguished themselves by joining together in building temples for them. Or else it may be that the (large) towns changed their location for some reason, and so wherever they settled they always built anew their temples, sanctuaries and houses for their lords.

Of the Lacandon of 50 years ago, Tozzer (1907, p. 38) writes that they "move their encampments . . . from place to place, but only within a very narrow range. As soon as the fields around a settlement become barren, a new site is found in the immediate vicinity. Thus a family always lives in the same general locality. . . ."

SOCIAL CLASSES

The social stratification seems to have been priests, military leaders (in later times known as *batab* and *nacom*), and "lords" or *principales* on the one side and commoners on the other. Slavery may well have existed, for prisoners and slaves formed one of the classes of persons who were the victims of human sacrifice. It can be assumed that a highly centralized authority, as well as a large supply of labor, was needed to account for the amazing results seen in the great artificial pyramids, the stone and concrete construction and the ornament.[5] Class distinction is portrayed in the art. This comes out clearly in the frescoes in the Temple of the Warriors at Chichen Itza.

7. ARCHÆOLOGICAL STAGES

This survey will be divided chronologically; under each period, there will be a very general discussion of the archæological remains in the two main areas: the southern lowlands and central highlands on the one hand, and the northern lowlands or Yucatan on the other. (Three important papers by J. E. S. Thompson [1940, 1943, 1945; also his 1950] form a good summary of Maya archæology. See also Termer, 1952; Proskouriakoff, 1951; Tozzer, 1934; Pollock, 1940, etc.; and Kidder, 1940, 1950.)

EARLY CULTURES

FOSSIL MAN. Geologically early man has never been found in the Maya area.[6] The evidence of the beginning of culture in central Mexico has been advanced by several investigators. The most celebrated site is that at Tepexpan in the state of Mexico. In the Upper Pleistocene in the Becerra formation, prior to Caliche III, the presence of "fossil man" seems to have been established by the association of stone points and bones of a mammoth. Arellano reports the discovery of an articulated mammoth with stone implements at Santa Isabel Iztapan. Other early finds have been reported in Tamaulipas.

A Chalco basalt industry is recognized by de Terra as preceramic and preceding Zacatenco I, the earliest of the Archaic cultures in the Valley of Mexico. This last claim is not universally accepted. (De Terra, Romero, and Steward, 1949; Arellano, 1946; Black, 1949; Arroya de Anda, 1950; Martinez del Rio, 1952; Caso, 1953; Arroyo de Anda and Maldonado-Koerdell, 1953 are some of the writers on this subject.)

HUMAN FOOTPRINTS IN NICARAGUA. To keep the record complete, mention should be made of some supposedly very early human and animal footprints preserved in volcanic tufa in Nicaragua. The Peabody Museum has some of these prints. (Peabody Museum has best U. S. collection. Leaf prints were analyzed by Prof. Berry of Johns Hopkins in 1921 and identified as modern flora [Lothrop, 1926a, 1: 101].) Attention was first called to them as early as 1883 by Earl Flint, who was working there for the museum. He claimed (1883) they were "at least 50,000 and possibly 200,000 years old." Interest in these footprints was revived by Carnegie Institution in 1940–41, when they were reported upon by Francis B. Richardson (1941), with comments by Howell Williams of the University of California. The next year, Richardson and Ruppert investigated the remains (1942); later, Howell Williams made a preliminary (1949) and then a final (1952) report, where he writes that the prints are probably "more nearly 2000 than 5000 years old." He continues, "The occurrence of bison and human footprints together is of little diagnostic value as the time of the extinction of the bison is problematical."

RADIOACTIVE CARBON (14). In 1946 discoveries in the new field of nuclear physics were brought to bear on their possible use in dating plant, animal, and human remains found in archæological deposits. One of the proposals was to use radioactive carbon (14) for this purpose. It is believed that this C14 is produced at a constant rate "by the action of a component of cosmic rays on atmospheric nitrogen" and "disintegrates at a rate proportional to its concentration." When the two processes reach equilibrium, the concentration of C14 remains constant, even when it is absorbed by a living organism, as long as the organism is alive. When death comes, there is no more replacement of C14, but a decrease "as fast as the radioactive atoms disintegrate." Thus, by examining a measurable amount of wood, for example, taken from a ruin, it is possible by calculating the proportion of C14 now present in the carbon of the wood to determine the length of time between the death by cutting of the tree furnishing the wood and the present.[7] This

subject is such a new one and the comparative dates so far published (1952) are often so seemingly inconsistent, that it seems premature to consider them at length here. There are some dates available for the Maya area and many others are expected.[8]

PRECERAMIC OR PRE-ARCHAIC STAGE. Evidence of the first definite archæological period in Middle America is neither abundant nor clear. On the other hand, this stage of culture antedating that where pottery is common can be assumed and has long been predicted.

An archæological deposit probably preceding the Archaic is reported at Copan by Longyear (1948, 1952). About 0.4 m. under the lowest limit of ceramic-bearing soil come first a sterile stratum of river clay and then a thin layer of earth and charcoal containing bones of small animals, blackened or charred by fire, flint and obsidian chips and one large flake.

Drucker (1948) also reports a non-pottery-carrying stratum at Islona de Chantuto on the coast of Chiapas.

ORIGIN AND ANCESTRY OF MAIZE. (1) "Maize is an American plant." (2) "It has at least one center of origin in Middle America." (3) "The ancestor of maize is maize, a form of pod corn, a popcorn." (4) "Maize hybridized with Tripsacum or teosinte or both to produce radically new types which comprise the majority of modern maize varieties of North America." (This discussion is based almost exclusively on Mangelsdorf, 1954, from which the quotations are taken.)

The remarkable discovery of fossil grains more than 200 feet below Mexico City was a very great event in this study. The pollen was identified as that of maize which once grew, probably wild, in the Valley of Mexico. "On the basis of currently accepted glacial chronology the fossil maize pollen is at least 60,000 years old."

Archæological investigations have helped to fill in the picture. In 1948 Herbert Dick, on a Peabody Museum expedition, found in Bat Cave, New Mexico, the oldest and most primitive corn then known. In 1950 Dick, then of the University of Colorado Museum, dug up more primitive cobs from the same cave. These are dated at 5605±290 years by Libby's radiocarbon estimates of associated charcoal.

The last "find" was made in 1948–49 at La Perra cave in Tamaulipas, Mexico, by Dr. MacNeish of the National Museum of Canada. This consisted of small cobs of a primitive maize with a radiocarbon date of 4445±180 years. Within the last year teosinte has been found above the earliest type of corn.

Mangelsdorf and Galinat have concluded that "the botanical characteristics of the early La Perra cobs represent the prototype of a small-eared race of popcorn, *Nal-tel,* which is well illustrated on Mexican funerary urns and which is still grown by the Indians in Yucatan and Campeche." Mangelsdorf believes that both the Bat Cave and the La Perra maize are primitive. "They differ in a number of botanical characteristics to the extent that we regard them as two types which were domestically separated from geographically distinct races: one adapted to the low lands and the other to the highlands."

Thus "in 6000 years or less, a small wild grass bearing tiny ears no longer than a modern strawberry has evolved into one of the world's most productive cereals. . . . Most of the factors involved . . . have been largely accidental. There is little evidence that man practiced artificial selection in maize in the early stages of domestication." (See also Mangelsdorf and Smith, 1949, with bibliography; C. E. Smith, 1950; Meade, 1948. For Mexican granaries, see Hernandez Xolocotzi, 1949.)

ARCHAIC CULTURES[9]

HISTORICAL PERSPECTIVE. The early history of this important pre-Classic culture in the Valley of Mexico is worth placing in the record. As far back as 1861 the French Abbé Brasseur de Bourbourg wrote (1861, p. 67), "A singular proof of the existence of ancient towns buried under lava is found in the Pedregal (Copilco)." In 1881 at the Trocadero Museum, Paris, a collection of clay heads labeled "of the archaic type" from a hill near Tacuba was put on exhibition. In 1902, Mrs. Nuttall noted some "small clay heads" with which children were playing near the quarry of Copilco. Recognizing them as different from both the Aztec heads and those from Teotihuacan, she started to gather them. In 1909, while visiting Bishop Plancarte in Cuernavaca, she noted in his collection, made from 1886 to 1890 in Tacuba and from 1900 in the states of Guerrero, Morelos, Hidalgo and Mexico, similar "archaic clay heads." Thus, independently they both reached the same conclusion: a new culture period. The first specimen of this type was probably that described by Troncoso and Plancarte in 1892 (Plancarte, 1911; Nuttall, 1926).[10]

In 1910 the first definite name given this horizon by Gamio was "Tipo de Cerro," changed a year later by Boas to "Tipo de Montana." In describing the work of the International School of Archæology and Ethnology in Mexico, I (1915) applied the term "Archaic" to this culture, not knowing that this was the name used in 1881 to designate the clay heads of this early type. I employed this term to mean neither first nor undeveloped and primitive but, as in Greek and Egyptian archæology, a period preceding the Classic and marked by a crudity as compared only with that which followed. In 1917 Spinden presented, in the first edition of his handbook, the New World "Archaic Hypothesis," still "a brilliant suggestion."

The investigation of the Archaic started first in the Valley of Mexico, about 1910. Since then, the evidence of these cultures has been found to cover a wide geographical area, extending from the Southwest United States through Mexico and Central America to the Isthmus and possibly into South America.

The remains of the Archaic horizon throughout the greater part of Middle America have several points in common. The pottery is generally monochrome or bichrome, usually of many shapes, and decorated with simple incised or painted designs. There is a relatively high development of figurines, usually of females, all modeled by hand, and many showing vestiges of paint. That all this indicates the beginning of a fertility cult is pure supposition.

There is a distinct agricultural economy and a sedentary population behind these cultures. Only a few buildings or structures have, up to the present time, been definitely associated with these early remains. Shook reports several at Kaminaljuyu and in the Guatemala Valley area.

ARCHAIC IN MEXICO. Before discussing the Archaic in the Maya area, I shall list some of the places in central and southern Mexico where this horizon appears. The most extensive investigation in any one region was made by G. C. Vaillant in and near the Valley of Mexico from 1928 to 1933.

After the early pre-Classic sites of Arbolillo, Early and Middle Zacatenco and Copilco come Xalostic and most of the Tlatilco burials, with the final stages of Early Ticoman–Late Zacatenco and Late Ticoman–Teotihuacan I (Porter, 1953). Libby (1952, Nos. C), making use of the radiocarbon technique, has published the probable years of age of specimens from the Valley

of Mexico, dating back to the Archaic period, each with the possibility of an error of 250 years. Transposing these figures into Christian chronology we find that Early Archaic (Zacatenco) corresponds to 1356 B.C., Early to Middle Archaic (Tlatilco) to 1453 B.C., and Late Archaic to 480 B.C. [The date 1453 B.C. given for Tlatilco is now thought to be associated with the Early Zacatenco material which surrounds Tlatilco graves.—T. P.]

Some of the other Mexican sites, chronologically equated with the Archaic horizons, are: Gualupita I and III and other places in Morelos, Cholula I; Monte Alban I and II and Montenegro; Xochicalco I; Tampico–Panuco I and II in the Huasteca; Trapiche I and II, and Lower and part of the beginning of Middle Tres Zapotes in southern Veracruz. In western Mexico El Opeño in Michoacan and Chupicuaro in Guanajuato are among the sites which show pre-Classic remains.

Archaic in the southern Maya area. In 1898 G. B. Gordon, while on an archæological expedition for Peabody Museum, discovered in the gravels of the Ulua River and in the Copan caves, Honduras, figurines and pottery later identified as belonging to the Archaic culture. Some of the sites in the Ulua-Comayagua river drainage are Lake Yojoa, Playa de los Muertos, Santa Rita, and Yarumela, Honduras. To this list should be added the pre-Acropolis stage at Copan and sites in western Salvador, especially Usulutan (Longyear, 1952).

These early cultures are well represented in the Peten by two phases: Uaxactun Ia, called "Mamon," and Uaxactun Ib, "Chicanel."

In the Guatemalan highlands at Kaminaljuyu, near Guatemala City, the phases of the Archaic period are: Las Charcas, Arevalo, Majadas, Providencia-Sacatepequez, Miraflores, Arenal, and Santa Clara, with approximate dates from 2000 B.C. to A.D. 200 (Shook, 1952). Shook found the only tombs belonging to this early stage to be scientifically examined.

Among other places where Archaic remains appear in the south are Chukumuk on Lake Atitlan, Salcaja, Alta Verapaz, Chanchicupe in Guatemala, and sites on the Pacific coastal plain of Guatemala and Chiapas; San Jose I, Benque Viejo Ia and Ib, and Mountain Cow I in British Honduras; and San Agustin in the Motagua Valley. Included here are El Salvador sites: Cerro Zapote, Usulatan, etc. (Lothrop, 1926, 1:325–28).

Archaic in Yucatan. It has been only within the last few years that either the Archaic or the Classic period has been generally recognized in the peninsula. Evidence establishing these two horizons there continues to accumulate as more intensive work is being done.

Our information on the Archaic or Formative is almost exclusively derived from the work of Brainerd (1940–42, 1948, 1951). His ceramic periods in Yucatan start with Early, Middle, and Late Formative "through the Yucatan Regional and Florescent (Classic) which correspond together to the Peten Initial Series period. Following the Florescent stage come three subdivisions of the Mexican stage."

The Early phase has been found only at the Mani Cenote, where it was under a Late Formative type of sherd. The pottery indicates large bottles with a capacity of three gallons.

The Middle Formative was noted at Santa Rosa Xtampak and Dzibilnocac, both Chenes sites. The ware is mostly monochrome, "predominantly red, some white, orange and grayblack." Incising is the only surface decoration. Neither of the sites in the Middle period produces specimens which are similar to those of Chicanel. At Santa Rosa Xtampak Brainerd found a 3-m.-deep deposit which may show the remains of a structure earlier than any known from this horizon in the Maya region.

Late Formative sherds were collected from Santa Rosa, the two sites just mentioned, Chichen Itza, Yaxuna, Holactun, Acanceh, and Mani with smaller collections from Dzibilchaltun, Mayapan, Kabah, Sayil, and Xpuhil. The main ware is a slipped monochrome, most often a heavy, large, flat-bottomed bowl with flaring sides. There was one fabric stamp and one appliquéd hand-modeled face from the side of a vessel.

This relatively short list of sites in the peninsula with remains dating to the Archaic period is undoubtedly due to the scarcity of data on the ceramics. Brainerd (1957) writes:

> With a partial exception in the case of the Puuc sites, every major ruin sampled showed pure or nearly pure Late Formative deposits in the bottoms of trenches. The Formative sherds from the ruins, however, seldom exceed a tenth of the total collection . . . . There thus seems to have been a well distributed and probably heavy Formative population in Yucatan, and the location of Formative sites were clung to with surprising tenacity by the later Maya peoples.
>
> The end date of the Yucatan Formative is established by cross ties with Uaxactun where the Chicanel ceramic period ended before the carving of the first stela, at about 320 A.D.

An "enormous pyramid" at Yaxuna, at the western end of the famous Coba causeway and just south of Chichen is regarded by Brainerd as Archaic.

8. GREAT OR CLASSIC STAGE [11]

Classic and the Initial Series

The Classic era runs from about A.D. 300 (in round numbers, the earliest known date in an Initial Series of the hieroglyphic writing recorded on a stela in the Maya area) to about 900, the latest date in the same method of reckoning found up to the present time. Both occur on monuments from Uaxactun.

These two limiting dates in the Maya system of nomenclature are usually considered as 8.14.0.0.0 (A.D. 297–317) and 10.3.0.0.0 (869–889).[12] The equivalents in Christian chronology are based on the Goodman-Martinez-Thompson correlation, usually called Correlation B. The Spinden correlation (A) is about 259 or 260 years earlier.[13]

There is always danger in using the earliest and latest dates in the hieroglyphic writing on the monuments of a single site as defining the beginning and the end of the occupation of the city in question. J. E. S. Thompson (1940) wrote:

> One important result of the establishment of these ceramic sequences is to divorce Maya history from the stela complex. It is now clear that the interval spanned by inscriptions on monuments bears no relation to the actual occupation of a site. Benque Viejo is a case in point. The one sculptured stela carries the date 10.1.0.0.0 (849) . . . whereas the pottery, the earliest horizon of which may conceivably antedate the first phase at Uaxactun, indicates an occupation from early in Cycle 8, nearly 800 years earlier.

Another discouraging feature concerning dating by the Initial Series is shown at Copan. Longyear (1952) considers the determination of ceramic periods by stelae inscriptions at this site to be of very little value. He states that all the early monuments carved in the first part of the occupation of the site (before 9.9.0.0.0) were either re-used or otherwise dislodged. Of the 15 substela or subaltar caches, only three have objects which can be tied into the ceramic complex.

Classic Maya Centers

The word "empire" used to be bandied about without much thought given to its implication. It now seems clear that there was neither an Old nor a New Empire. The geographical provinces, already given, may be said to correspond roughly to centers of population. With a good deal of overlapping, the Peten with its outpost at Coba has a certain amount of unity and the Usumacinta drainage system forms another center, to mention only two.

A map of the Maya ruins shows, scattered about the two great Peten centers of Tikal and Uaxactun, the largest concentration of important sites with dates in the hieroglyphic writing in the whole Maya region. The communication between these sites was probably by land, although some authorities consider that at one time there was a series of lakes here.

Our second area consists of important sites, smaller, in general, than those of the previous district, strung along the Usumacinta River and its many affluents. Here communication by water was possible. Excepting some rapids above the present town of Tenosique, southeast of Palenque, the river is navigable by *cayucos* from its many mouths up to and including much of its three main branches: the Lacantun, the Salinas or Chixoy, and the Rio de la Pasion.

These are only two of the archæological provinces which were important centers in Classic times. Another, as we have seen, was in the south with Copan and Quirigua. A fourth was in the central highlands in Guatemala. Here the pattern of the material culture was very different from that of the other three. There is comparatively little sculpture here, few evidences of stone architecture, very few stelae, few altars, and, more difficult to explain, an almost total lack of important examples of hieroglyphic writing. In the attempts to recall the social-economic-religious history of the country, as we shall see, much stress has been laid on the fact that recording dates in the Initial Series ended about 10.3.0.0.0 (889). Here is an area with Classic remains long antedating 900 which probably never had any hieroglyphic writing of any chronological significance.

It seems fairly certain that, in Classic times, there was not only no such thing as an "empire" but even in the provinces probably no one authority. Peaceful conditions, trade, interchange of ideas and techniques and probably of artists themselves, can perhaps be postulated. How much the lack of workable stone for facing buildings and for stelae and altars accounted for the absence of bas-relief and inscriptions in the Guatemalan highlands is a question not yet answered.

In the Late Classic, along the Usumacinta River, it seems certain there were schools of art and design, with very typical ways of representing the dress and accoutrements of those in authority. There was here also a center for the manufacture of jade amulets and other ornaments. This region, as we shall see, furnishes many parallels persisting into later times at Chichen.

Distribution of Classic Sites by Sculpture

In the Peten, along the Usumacinta River, and in the region extending south into Honduras, the Great period in Maya history had its highest development. Here are the great centers, marked by formalized plans and built of stone, most of them with dated monuments.

The Classic era falls into two periods, whether based on pottery or on sculpture. The dividing date according to either yardstick, differs very little. Following Proskouriakoff's (1950) new time-scale, based on sculpture, the Classic culture arranged by this method is as follows: [14]

Early I:	Late Cycle 8 dates:	8.14.0.0.0 (317) – 9. 0.0.0.0 (435)
Early II:	Early Cycle 9 dates:	9. 0.0.0.0 (435) – 9. 5.0.0.0 (534)
Hiatus:		9. 5.0.0.0 (534) – 9. 8.0.0.0 (593)
Late:	Formative phase:	9. 8.0.0.0 (593) – 9.13.0.0.0 (692)
	Ornate phase:	9.13.0.0.0 (692) – 9.16.0.0.0 (751)
	Dynamic phase:	9.16.0.0.0 (751) – 9.19.0.0.0 (810)
	Decadent phase:	9.19.0.0.0 (810) – 10. 3.0.0.0 (889)

Still with sculpture as a criterion, the distribution of the various types by geography as well as by period is striking. Confining the study, for the present, to the most important sites in the central and southern lowlands, Proskouriakoff finds that the earliest examples of design in the Peten, dating from Early I, are represented at Uaxactun, Tikal, Xultun, and Yaxha. Sculpture or dates on monuments are first found on the Usumacinta at Yaxchilan and Piedras Negras and, in the south, at Copan in Early II. Palenque, Bonampak, and other sites in Chiapas are not represented until the first or Formative phase of Late Classic. Naranjo comes in at about the same time; Quirigua in the next period, the Ornate; La Honradez, Ixkun, Seibal, and the Rio Bec in the Dynamic; and Nakum and Tayasal in the last or Decadent phase.

Early Classic (ca. 300–600)

Let us next examine this early period from the point of view of ceramics. In the Peten, the first half of the Classic is represented by the Tzakol phase at Uaxactun (Uaxactun II). The basal-flange bowls, often with covers, found also at Holmul are most characteristic of the same horizon. This period is represented also in Holmul I–IV, San Jose II, Benque Viejo II, Mountain Cow II and III, and early Piedras Negras.

The Esperanza phase at Kaminaljuyu also belongs here. There are practically no associated stone structures, other than remains of foundation mounds, and practically no hieroglyphic writing; but the deposits, mainly of pottery, excavated by Carnegie Institution, represent the best-documented material for this and for the preceding Archaic horizons (Kidder, Jennings, and Shook, 1946). Stone sculpture is extremely rare here. Two altars and some carved fragments have been identified as from the Esperanza phase or a variant of Early Classic. Berlin (1952) divides early Kaminaljuyu into Aurora and Esperanza.

The extensive remains come from tombs, showing a most important affiliation in two directions, one with Late and possibly the Early Tzakol phase of Uaxactun in the Peten, and the second with the great site of San Juan Teotihuacan, far to the north in the Valley of Mexico. With dated inscriptions in the Peten, it is possible definitely to equate ceramics at Kaminaljuyu with similar types in the Peten and, again, with other varieties of pottery here in the same horizon, with specimens of identical shape and decoration at Teotihuacan. Thus a link is made with the north, although neither the great site there nor Kaminaljuyu has any hieroglyphic inscriptions. This chronological coupling falls in the Classic period at Teotihuacan (Teotihuacan III or Xolalpan of Armillas, 1950), dating about

A.D. 500 (Linné, 1934, 1942; Kidder, Jennings, and Shook, 1946; Kidder, 1948).

Some would go so far as to consider Kaminaljuyu mainly an early Mexican rather than a Maya site. The inhabitants, however, probably spoke Maya and the influence from the north does not seem to have come as the result of a migration of large numbers of people. It is far more probable that there was no Mexican *entrada* at this time, but a trade relationship between the two centers similar to the one we know was in operation just before the conquest. The evidence of a movement northward of Maya objects is meager. A few Late Classic jades have appeared in Mexico (to be discussed later). Furthermore, some characteristics of the Teotihuacan culture, such as the figurine cult, seem to be entirely lacking at Kaminaljuyu. A few *candeleros* have been found.

At Copan, Longyear (1952) believes that about 9.0.0.0.0 (435), priests and a hieratic cult came in from the Guatemalan plain simultaneously with ceramic wares from Peten. It was in this period that the famous Acropolis was begun. The monuments of this era ran from 9.1.10.0.0 (465) to 9.6.10.0.0 (564).

Late Classic Cultures (ca. 600–1000)

Late Classic in the south. In the Peten and along the Usumacinta there is a sharp distinction in architecture, in pottery, and in ornaments between the first and the second halves of Classic times. In the Peten comes the Tepeu phase, especially marked at Uaxactun (Uaxactun III) and at Holmul (Holmul V), and characterized by a high development of figure-painting on the pottery. This type is well developed in the Guatemalan highlands, especially in the Alta Verapaz and the northern Quiche regions. In this period we can place a wonderful collection of jades, discovered by A. L. Smith of Carnegie Institution at Nebaj (Smith and Kidder, 1951), similar to many specimens of this material found in the Cenote of Sacrifice collection. Also included in this period are San Jose III, Benque Viejo III, and Mountain Cow IV.

Following the Aurora and Esperanza phases at Kaminaljuyu come the Amantle-Pamplona phases of the Late Classic periods. There seems to be a kind of triangulation which determines the chronological position of several southern sites as coming in the latter half of the Classic period. Amantle-Pamplona equate with San Juan Plumbate; this, in turn, with metal and Plumbate in the Magdalena phase of San Agustin Acasaguastlan and with the Pokom phase at Zacualpa; all this with copper and Copador pottery at Tazumal graves (Salvador) and this, finally, with Copador pottery under a Late Classic stela at Copan with the date 9.15.0.0.0 (A.D. 730; Kidder, 1948, p. 229).

The "Full Classic" of Longyear, at Copan, is marked by the completion of the Acropolis and the erection of the monuments dating from 9.9.0.0.0 (613) to 9.18.10.0.0 (800). Copador pottery was common, and the Hieroglyphic Stairway and the Ball Court were completed about this time.

Included in this latter half of the Great period are the newly discovered ruins of Bonampak in Chiapas with their bas-reliefs and extensive frescoes. These furnish a new and important sidelight on Maya history (Villagra Caleti, 1949; Ruppert, Thompson, and Proskouriakoff, 1955).

Late Classic in Yucatan. Before considering this phase over the greater part of southwestern, western, and northern Yucatan, we note three sites in the north which stand out as nearer the southern Classic than those represented by the Puuc. These sites—Acanceh, Izamal, and Ake—seem to be pre-Puuc. The stucco decoration of the first two is noteworthy. Unfortunately, comparatively little is known about them (Andrews, 1942).

South-Central Yucatan Cultures

After this brief discussion of the Classic tradition in the south and its reflection in the north, we now come to the eastern half of the present state of Campeche and the southern part of the state of Yucatan, where there is a confusion of architectural types, plans, decorative design, and ceramics, most of which seem to date from the second half of the Great period. Our knowledge of the southern part of the area is, unfortunately, meager. With practically no hieroglyphic dates and with little bas-relief, our information on these cultures is not definitive.

There are three rather distinct types of remains represented here. The first is that known as Rio Bec, in southeastern Campeche. This lies north of those sites representing the Classic which spill over the Campeche-Peten border. The second is the culture known as Los Chenes, northwest of Rio Bec, occupying northeastern Campeche, and generally south of the hill country. The third type of remains is called the Puuc, found in northern Campeche and adjoining parts of the state of Yucatan. The first two are more closely related to one another than either is to the Puuc; it is likely that, with more intimate acquaintance, they will be found to coalesce into a single unit (Ruz, 1945, map and comparative table).

Chronologically, it is difficult to place definitely these three cultures, which together seem to date from about 600 to 900–1000. They are, in general, contemporaneous with the Late Classic. There is much overlapping in time and some also in space, and there is considerable interrelationship among the three. The Rio Bec buildings seem to be slightly older than those of Los Chenes and these, in turn, seem, in some cases, to antedate those of the Puuc.[15]

Rio Bec. The most distinctive feature, decorative and architectural, in this area is the construction which takes the form of two solid masonry towers, each representing a small pyramidal temple with a blank door and an almost perpendicular and nonfunctional stairway. The rooms are usually on the ground level; the roof of the back middle room often carries a narrow roof comb. This superstructure is also often seen on top of the towering "temples." [16]

The buildings have an excellent thin-veneer masonry and often have rounded corners where the base of the towers projects from the line of the center unit. The tower feature may have been carried over from seemingly earlier Peten structures at Nakum (Temple A) and at La Honradez (Tozzer, 1913).

At Xpuhil (Proskouriakoff, 1946, pl. 13), a third solid tower-"temple" with its superstructure rises behind the center rooms. Here the front of each of the three towers represents a type of design which J. E. S. Thompson (1942) calls the "celestial monster." [17]

There is some question as to the first appearance of this type of entrance decoration. At Copan, Honduras, the mask façade occurs on Temple 22 and possibly also on Temple 11. There seems to be no question but what the design represents an open mouth because, along the bottom of the open doors, there are upturned teeth belonging to the assumed lower jaw. The date of Temple 22 is given by Thompson (1942) as 9.17.0.0.0, about 770 (Trik, 1939; Proskouriakoff, 1946, pl. 11).

As we have just seen, the same type of façade at Rio Bec dates also from the second half of the Great period, and there is a possibility that this type of entrance may antedate that of the south at Copan. The persistence of this open-mouth entrance is important to note in the Los Chenes area. At Kabah, on the Adivino at Uxmal, and on the eastern façade of the Monjas at Chichen, the same open-mouth doorway is found, in each case associated with a Puuc type of building, the mask usually being a later addition to the original building. At Chichen it is a broken-down "degenerate" example of this type of design.

Several monuments were found at Rio Bec, Group V, unfortunately with no identifiable dates. The two preserved sculptured Stelae 5 and 6 are designated as "in the Peten tradition and of the Dynamic Phase of Late Classic" (751–810).

The buildings at Rio Bec and, to a lesser extent, those of Los Chenes differ stylistically and structurally from those of the Puuc. The engaged columns of Rio Bec, for example, are made of small stones; those of the Puuc are of stone drums. In the former, in general, the walls seem to be of unworked stones; those of the Puuc are smoothly finished. The lacunae in our knowledge of the architecture and other features of these two styles are large.

Los Chenes. This area lies north and northwest of Rio Bec (Seler, 1916; Thompson, 1942; Hissink, 1934; Ruz, 1945, with map; Maler, 1895, 1902). Some of the sites are in the same general locality as those belonging to the Puuc culture. There are, often, two types of structure: the temple, a two-room building, facing north and south, with a wall-like roof comb, each room approached by its own stairway; and the so-called "palace," such as at Hochob, which is usually taken as the type site of this culture. The façade is broken up into three units of design, the two end ones separated by decorative perpendicular elements. The central unit sometimes supports a thin, wall-like roof comb decorated with human figures in stucco.

The elaborate mask-façade design, so highly developed at Rio Bec, also appears at several sites here. The central unit of the type site at Hochob carries this "earth monster"; the end rooms each have the mask with upper jaw but no profile parts below.

Engaged columns, lattice, woven designs, and frets together with the framed panel (the latter well shown at Palenque) are among the decorative features here as well as at Rio Bec. All but the last are also found in the Puuc culture. There is a constantly increasing use of the simple mask design, often superimposed and used at the corners of buildings. This element reaches its height, however, on the Puuc structures.

The tower-like buildings in the Rio Bec are less commonly found in Los Chenes. At Dzibilnocac or Iturbide and at Tabasqueño, however, is a towered building with the open-jaw entrance. The solid masonry foundations of the central element of these structures we shall see later in buildings of the Puuc culture, especially at Chichen Itza.

Terraced, set-back, multiple stories are seen here at Los Chenes and are also one of the Puuc types of edifice.

Xtampak or Xlabpak de Santa Rosa has an excellent example of the terraced, three-story structure with solid central core, just described. This site, typical Chenes, has eight stelae, two of which carry a date already mentioned in connection with the Classic stage, and traces of Archaic pottery below a floor. Its main occupation shows, according to Brainerd, large deposits of pottery antedating the stelae, and a slate ware close to the Puuc type. There is thus an overlapping with the Puuc, as in other Chenes centers.

Of his work at Uxmal, Pollock (1931–49 [1936, p. 123]) writes,

> Of outstanding importance is the existence of several buildings that in mode of construction or style of decoration seem surely to be allied to the remains of the Chenes. Two of these give evidence of being demonstrably earlier than the structures known as the Casa del Gobernador and the Casa de las Tortugas, but in so far as the Gobernador and Tortugas are comparatively late examples of Puuc architecture, the determination of the relative chronological position of the Puuc and the Chenes styles is not greatly aided.

Dzibilnocac or Iturbide dates back to the Archaic period as does Xtampak. The architecture is confusing because two-column entrances, a Puuc characteristic, are found here.

Yucatan-Maya: The Puuc

The third of the architectural schools in this general region has, in most cases, been known since the days of Stephens but, strangely enough, very little actual investigation has been carried on here. (Stephens, 1841, 1843; E. H. Thompson, 1897a; Maler, 1902; Seler, 1915; Marquina, 1928, 1951; Palacios, 1945; Pollock, 1931–49.)

The Yucatan centers previously mentioned under Late Classic, together with those of Rio Bec and Los Chenes, are associated primarily with the Usumacinta and Peten sites, but the remains of the Puuc type stand quite apart from the Classic tradition. The culture is here called Yucatan-Maya in strong contrast to the Tula-Toltec Yucatan or Toltec Maya which follows. The term commonly used in describing the earlier culture, the Puuc, comes from the name given to the low range of hills in the central part of the peninsula. This Yucatan-Maya has a very definite type of architecture and geometrical façade decoration centering in this region on both sides of the border between the states of Yucatan and Campeche. The style extends east as far as Chichen Itza, Yaxuna, and Nicteha. Modern explorations at Mayapan, usually considered a late site, reveal the remains of an important occupation in Puuc times.

The chronological position of this culture in the second half of the Great period has already been mentioned. The closing date seems to be later than that of Rio Bec and of Los Chenes, probably close to the year 1000.[18]

Here are the same two types of buildings usually found in most of the sites, the temple and the "palace." The former often has a high openwork upward extension of the façade, into which was set a design of human and other figures in stucco. The palace is the more common and is often composed of clusters or lines or rooms. Sometimes, as at Labna, originally separate buildings are joined by later construction. Several rooms may each have an entrance divided by one or two plain columns. The mosaic-like veneer decoration of both types of building shows a constant repetition of comparatively few designs.

The highest development of the Maya mask panel, already discussed in connection with the open-mouth entrance, is found in this type of culture. The elements which go to make up its design are very consistent (Spinden, 1913, pp. 118–27; Hissink, 1934). A Kabah façade entirely covered with superimposed masks is famous. Those on the House of the Governor at Uxmal are also worthy of note. The mask, as we shall see, is one of the

few persistent elements of decoration which carry over from Maya into Toltec times at Chichen Itza.

Also common in the Puuc culture are engaged or split columns, or colonnettes, each often divided by "spools." Imposed on this design may be a human figure. Frets, latticework, a woven design, and rosettes are sometimes present on the upper zone of the façade. The lower one is generally plain except when broken by a few engaged columns or other decorations arranged in panels. Three or five half-columns, broken by "spools," sometimes form the corner of the building on the lower zone, with a carved human face at the bottom. The cornice, medial molding, and plinth often show semicircular cut stones which have the appearance of tiles. This design on the medial molding may give way to more elaborate patterns, sawtooth zigzag bands, dentils, crescents, or other elements between the string courses.[19] Table 12 shows the distribution of some of these geometric elements.

Owing to the ceramic investigations by Brainerd, we are now on somewhat firmer ground in any discussion of this perplexing area. As we have seen, there is considerable overlapping of the three cultures. The Rio Bec and Los Chenes are closely allied and seem to find more common points with the culture to the south. Yucatan-Maya stands somewhat apart. Several structures at Uxmal which have Los Chenes characteristics are thought by Pollock to be earlier than some of the Puuc construction. Brainerd reports at Xtampak a tendency to find Los Chenes sherds lower than those of the Puuc and reports, in the same site, several Chenes characteristics corresponding to those in northern Yucatan and antedating the Puuc, but still "considerably overlapping." At Dzibilnocac he sees a considerably larger proportion of types which do not fit closely into the Puuc classification.

The Puuc occupation is characterized by the use of slate wares and an imported Fine Orange (Brainerd's Type Z).

The almost complete lack of Plumbate pottery of the effigy type and of Fine Orange, Type X, so very characteristic of the succeeding Mexican period, seems to show, as Thompson has pointed out, that the Puuc sites were abandoned before the beginning of that era.

The solid core with rooms at either side and sometimes on top seems to be common here as in Chacmultun, Sayil, and Kabah. Several examples of this type of building are laid out on terraces and some of the buildings have wall-type roof combs.

Gateways spanned with the typical Maya vault are found at Labna, Kabah, Uxmal, Oxkintok, Xculoc, Chichen Itza, and a few other places.

The very high single-room tower, standing quite alone, is found in this area at Chanchen and Nocuchich.

Uxmal. There are two references in the early literature both of which seem to deal with the main occupation of this site in the Puuc period. They both fall less than a hundred years after A.D. 600 which, as we have seen, is usually considered as the beginning of the Late Classic, where the Puuc remains are placed.

The city is primarily a Puuc or Yucatan-Maya center but, in many ways, it stands alone. It is an excellent example of the ornamental exaggeration of the Maya baroque. The Monjas quadrangle is an artistic achievement, using almost all the Puuc elements of design. Holmes (1895, p. 87) writes, "The four great buildings facing the court are among the most notable in Yucatan, and deserve especial attention at the hands of students of American art. . . . Though presenting a somewhat varied appearance, these buildings are essentially alike in plan, elevation and construction. The differences are mainly in the decorative treatment." A guilloche of serpents, their bodies forming panels, plays an important part on one building on the court; a design derived from a wooden prototype is found on another; and vertical tiers of superimposed masks rising above the roof line and small temple-like niches appear on two others. The so-called Governor's House and the Temple of the Adivino deserve admiration, particularly the "balance, rhythm, and harmony" of the decoration of the former. The stelae here, in a group by themselves, should also be mentioned. Stelae 2, 3, 4, and 11 are placed in the Late Classic. Stela 14, together with the Kabah altars, lintels, and door jambs are considered subsequently. Uxmal and its so-called "founders," the Tutul Xiu, will be taken up in connection with the later historical period (Chapter II-5).

Chichen I. The first architecture here belongs in the Late Classic period and it most nearly resembles that of the Puuc. As a matter of fact, only one building at this site, the Temple of the Three Lintels, is a strictly typical Puuc structure. This era at Chichen is called Chichen I and will be considered later (Chapter II-2).

Late Classic dated art in Yucatan. Gradually, the perplexing situation in the north in this period, roughly from about 600, seems to be clearing, owing largely to Andrews and Pollock in architecture, Brainerd in pottery, and especially to Proskouriakoff in art. The latter (1951) writes:

> The stylistic differences between Yucatan sculpture and the sculpture formerly designated as Old Empire are such that the former cannot be regarded as derivative of the latter. The artistic styles of the Peten, the Usumacinta, and the Copan-Quirigua regions, in spite of certain local differences, show a single coherent development over a period of at least five centuries. The sculpture of Yucatan does not constitute a comparably uniform group which can be thought of as the product of a single tradition, even if we exclude all monuments showing traits that can be traced to Tula, and all the cruder types which can be attributed to post-architectural periods. In Yucatan, sculpture is essentially heterogeneous and seems to represent an imperfect fusion of several independent styles.

Previously (1950, p. 156) she defined these different aspects of art.

> The following outline . . . rests on the proposition that at the beginning of the Late Classic Period the principal schools of Yucatan were basically Classic in style and that the later introduction of non-Classic traits was responsible for the diversity of schools we actually find. . . . The schools of Yucatan which can be recognized as basically Classic and which are associated with legible dates are the following: [Coba, Etzna, Santa Rosa (Xtampak), and Jaina].

Coba (Thompson, Pollock, and Charlot, 1932) is a site having monuments with definite dates, together with the most certain architectural and artistic affiliation with the Great period in the Peten. The stelae show a single-figure arrangement, the personage usually wearing a long necklace with a bar ornament. Among the 14 and more stelae is a series (1–6) dating from 9.9.0.0.0 (613) to 9.12.10.0.0 (682).

Not only is the early or Tzakol aspect of the pottery of Uaxactun found here but also the later or Tepeu pottery. A much later time is also represented, and some of the monuments seem to have been reset in small shrinelike structures typical of the late period both at Mayapan and on the East Coast. The influence on the development of the art here seems mainly to have come from the Peten.

Xcalumkin has dated sculptured door jambs, 9.16.0.0.0 (751), which "derive from the Coba School," together with Stela 2 at Dzilam and Stela 2 at Uxmal.

The second pattern, that of Etzna, has a fine series of Late Classic stelae running probably from Stela 18, 9.12.0.0.0 (672), to Stela 5, 9.18.0.0.0 (790). Stela 9, 9.19.0.0.0? (814), is later.

The next type of art is that of Santa Rosa Xtampak, with two stelae which seem to date about 9.16.0.0.0 (751). In architecture this site belongs to the Chenes culture.

The fourth school is that at Jaina, with a date on Stela 1 of 9.11.0.0.0 (652). Unlike the sculpture showing a single figure, usually found in the other three art styles, the design here is broken into panels, an arrangement seen at Oxkintok and Sayil. Various examples of design which belong to post-Classic times from most of the above sites will be discussed later.

These last three schools seem to derive their inspiration from the Late Classic of the Usumacinta region.

In the Mexican periods at Chichen are personages—depicted in the numerous bas-reliefs, gold repoussé disks, and some of the frescoes—who are mostly Maya in dress and accoutrements; they offer a contrast to the Toltec shown in the same carvings and paintings. The origin of these Maya attributes is still not satisfactorily explained. It is mainly to the Maya of the Late Classic in some of the Usumacinta sites, together with Naranjo in the Peten, that we turn for most of the similarities seen at Chichen (Table 24).

The two dates on monuments at sites on the East Coast should be mentioned, that on Stela 1 at Tulum, 9.6.10.0.0 (564), and one at Ichpaatun, 9.8.0.0.0 (593) (Lothrop, 1924; Gann, 1926). The stones on which these dates are found are not in their original positions. Most of the architecture at the latter place belongs in the last period of Maya history. No other stone remains were found at Ichpaatun.

At Chichen Itza, as will be noted later, there is a single Initial Series date, 10.2.10.0.0 (879), which, again, is not associated with the structure in which it is found. In one or two of the Maya buildings here, is an undecorated stability and solidity usually associated with the Classic of the south.

"End" of the Classic Stage

This is supposed to have come at about the time of the last important date given in the Initial Series, 10.3.0.0.0 (ca. 889). One must remember, however, that large sections of the Maya area, especially the Guatemalan highlands and much of the area of western Yucatan, even more especially Rio Bec, Los Chenes, and the Puuc (all dating from the Late Classic) with few exceptions lack Initial Series dates.

Why is it supposed that the people living generally in the Peten and the Usumacinta made a move northward into Yucatan about the year 900, which was also the same time that they gave up expressing dates in the Initial Series?

Theories of the "Fall." The first question to be considered here—and to which many solutions have been offered—concerns the reasons for the northward trek which is supposed to have followed the "abandonment" of the central areas. The answers are drawn from astronomy, seismography, demography, epidemiography, and the varied fields of the physio-climatic, socio-economic, martial, religious, and psychological. Here are some of the reasons offered. (1) Earthquakes and solar changes. (2) Climatic variations. In one thesis these result in too great a rainfall with a consequent encroachment of the forest on the cleared land. In the opposite theory, there was a deficient amount of precipitation. There is an agricultural-collapse hypothesis which rests on the conversion of the forests to savannas by the repeated clearing and burning of the forest to serve as corn lands. A corollary to this is the consequent necessity of going farther and farther away to find serviceable areas for making milpas. (3) An increased population and consequently a food failure. (4) Epidemics of malaria and yellow fever, both of which, however, are probably post-Columbian. (5) Foreign intrusions. Civil wars followed by governmental disorganization and social unrest are other factors. (6) A revolt against the clergy, or a demand by the hieratic group. (7) Physical, moral, political decadence set in with an exhaustion of aesthetic and intellectual standards. (8) Deliberate destruction, the result of anarchy with the fall of secular and religious sanctions. Finally, the abandonment occurred suddenly, according to some theories, or gradually, according to others (Rodriguez Beteta, 1950; Morley, 1946, pp. 67–72; Spinden, *passim*).

There is no reason to think that any one cause can be advanced for the "fall" of the Classic in the central and southern Maya areas. A reason which might apply to the Usumacinta might not necessarily fit the situation in the Peten. Furthermore, there seems to be some evidence that a total and widespread abandonment did not take place. The Maya represented in the bas-reliefs and gold disks dating from the Mexican periods at Chichen reveal many direct borrowings in dress and accoutrements from those shown on the bas-reliefs in sites on the Usumacinta. There may have been Maya still lingering in this river valley after the entrance of the Toltec into Yucatan.

Many of the jade plaques and pendants recovered from the Cenote of Sacrifice seem to have come from the Usumacinta. These have usually been considered as heirlooms made in Classic times and reaching Chichen in the Mexican stages along with the intimate knowledge of the appearance of the Maya of this central province.

Before we examine in detail the entrance of new elements from Mexico into different parts of the country at various times, let us see what some modern writers suppose was the character of the change which took place at the end of the Great period.

The "Militaristic Age"

Results. J. E. S. Thompson (1943) believes that

> The Mexican Period . . . marks a profound change from a theocracy to an aggressive militarism. Religion, although continuing to be a prime factor in the lives of the common people, lost ground to political and militaristic institutions among the new rulers. Warfare, once a means to an end—that of obtaining sacrificial victims—became more important than the end. The pattern of culture from one of moderation in all things to one in which excess was the standard (although never accepted by the old Maya stock).

In his latest book Thompson places this change in the character of the society about the beginning of the Late Classic. He writes (1954, pp. 93–94):

> The classic cities of the Central area (had) a dominantly religious setting. Subsequently there seems to have been a shift to a more secular society, which later developed strongly militaristic tendencies. . . . This shift seems to have been accompanied by a cultural

orientation toward warfare as a leading activity in the culture, and to have started about 650, before the Maya to the south had reached the peak of their Classic Period.

Concerning the entrance of the Toltec influence at the end of the Classic he continues (p. 107):

> The picture we have, then, is a complete reorientation of life. Alien gods and an alien ruling class impose a new way of life on the Maya of Yucatan and of the Guatemalan highlands, the old agricultural life of the peasant continues as before, but now supports new masters who, from regarding warfare as a means to an end, have inevitably found that the means are far more important than the end, warriors organize to serve the gods, but the latter in turn become patrons of warfare.
>
> If the theory that the peasants overthrew the old theocracy because of the burdens it imposed on them is true, we can rest assured that the revolt did them no good; the new rulers set them to work to build new buildings to the honor of the new gods and to the glory of their followers.

Willey (1953c, p. 378) extends this picture of the "militaristic age" to include the central Andes.

> Classic styles disappear, great classic sites of presumed politico-religious importance are abandoned, some being destroyed and large-scale migrations of people take place . . . various native accounts from both areas [Central Andean and Middle American] tell of wars of conquest and general turmoil. These accounts are, to a large extent, supported by archæological evidences of military establishments, fortified strongholds and the like, all of which seem to be more common to the later Peruvian and Mexican periods.

Armillas (1942–44, 1948, 1948a) considers the movement to be the result of an economic crisis, not the cause. Concentration of wealth in the hands of the clergy, extortion, and sudden disintegration were followed by the militaristic era. This student of Mesoamerican fortifications seems in his last paper (1951a) to have preferred the term "historic" to "militaristic" in designating the post-Classic period.

Classic stage. Before considering the possibility of a period of strife and warfare entering the Maya area in post-Classic times to break the serenity of a society dominated by priests and acolytes, let us investigate the possibility of warfare in the Late Classic. Ever since the discovery of the ruins of Bonampak and its three rooms with frescoed walls, the militant archæologist has seized the scene of strife on the wall of Room 2 as proof of a general stage of warfare. Now we learn from Ruppert, Thompson, and Proskouriakoff (1955, p. 51) that "the terms 'battle' and perhaps even 'fight' are too grandiose to describe this action. So far as one can tell, the enemy are unarmed." The authors describe it as a raid. "So far as one can tell, no one is slain, but many are taken prisoners." The attackers are equipped with stone-pointed spears and various types of clubs. The spear is a common weapon on stelae and altars along the Usumacinta in the Late Classic. Among many examples, we note that at Piedras Negras on Lintel 2 are six men-at-arms kneeling before two of higher command, all equipped with spear and shield. On Lintel 4, two soldiers, each with spear, kneel before a third who carries an elaborate weapon with decorated stone point. Prisoners, made secure by ropes, sit on the ground between them. On Lintel 1, the skirted figure shows the gesture of defeat, with right arm on left shoulder.

This evidence of strife, indicated by the presence of weapons and prisoners, did not suddenly appear at the end of the Late Classic but is found through most of this stage, and we shall see that the very same instruments of warfare are carried by Maya throughout the Mexican periods at Chichen Itza and in a few other sites. Prisoners are frequently shown, especially at Chichen.

In southeastern Campeche, a site of the Rio Bec type from the Late Classic is surrounded by an artificial moat (Ruppert and Denison, 1943).

On the religious side much the same situation is found. From what we know of the architecture and the content of the representative art of the periods immediately following the Classic, we find little slacking in the emphasis on religion. Even to the time of Landa, half of his *Relación* is on the religious life of the people at the time of the conquest. The testimony offered at the inquisition of 1562 makes clear the persistence and importance of the ancient religion in the life of the people. Even today much remains of the original fabric. (Tozzer, 1941, p. 262; Redfield and Villa, 1934; D. E. Thompson, 1954, who states that the Maya were "never a converted people.")

Mexican or post-Classic Stages

Toltec invasion. The importance of religion and weapons of the Maya of the later Great period continued but an entirely new ethnic group, originating in central Mexico, quickly made itself felt, especially at Chichen. The "Toltec invasion," about the year 1000, imposed itself on the older life, coinciding with radical changes—in art, architecture, and new religious cults—almost entirely centered, as we shall see, at Chichen. It is here called Chichen II.

This intrusion was, in all probability, a generally peaceful one. The theory of a militaristic period at this time seems to be based mainly on battle scenes in the frescoes in the Temple of the Jaguars and the Temple of the Warriors. These two sets of paintings, separated in time by possibly as much as 200 years, both depict probably local engagements, each near a seemingly small body of water. Human sacrifice is pictured next to both these paintings. Designs on the gold disks from the Cenote of Sacrifice are the strongest evidence of enmity between Maya and Toltec. But these do not furnish any far-reaching indication of an all-conquering host taking possession of the country.

Walled sites. *Chichen.* A "wall" was discovered but this city seems to have been without physical means of defense.

Mayapan. A question has been raised whether or not the famous wall, with its various gateways, around this city was erected as a protective device. A palisade on the top may have existed at one time. The main occupation of this site was in the period called here Chichen IV.

Chacchob. Remains of a wall lie at this site, southeast of Teabo, Yucatan. The structures, reported by Pollock and Stromsvik (1953), and the pottery clearly date from Puuc times, but the wall is similar to that at Mayapan. "These findings were unexpected . . . and there certainly remains the possibility that Chacchob underwent a late period of occupation" when the wall was constructed.

East Coast. Dated well after 1200 and generally contemporaneous with Mayapan are two walled sites on the eastern edge of the peninsula, Tulum and Xelha. The former has a wall on three sides, with the sea and cliffs on the fourth (Lothrop, 1924). [Another walled site, Xkaret, opposite the Island of Cozumel, is reported by Gregory Mason (1927).—T. P.]

[*Ichpaatun, Quintana Roo.* This site, near the Bay of Chetumal, is described by Escalona Ramos (1946, p. 522) as being enclosed on three sides by a wall, which is 300 m. long on the north, 770 m. on the east, and 400 m. on the south. A stela with the date 9.8.0.0.0 from this site is in the museum at Merida, Yucatan, but the character and period of its architecture is unknown.—T. P.]

Guatemala highlands. Here are several sites selected on account of their security and easy defense on points of elevated land (A. L. Smith, 1955). These are late in Maya history.

Mexican influence in the south. The history of the advent of waves of peoples, ideas, or objects from the north into the central and southern parts of the Maya area is quite different from that of the actual intruders into the peninsula.

The first known influence in the Maya area from central Mexico is that seen in the Esperanza tombs at Kaminaljuyu, in the Tzakol phase at Uaxactun, and in other places as originating in the Classic period at San Juan Teotihuacan, about 500.

The sculptured monuments at Santa Lucia Cotzumalhuapa, El Baul, and other neighboring sites on the Pacific slope of Guatemala have always raised problems regarding both their cultural and their chronological setting.

Many of the carved monuments in this region show features which are clearly Mexican and probably date from about the year 1000. Some of these northern traits are various Mexican gods, including the death god, Tlaloc and Xipe, human sacrifice, the Ball Court cult, probably the diving god, the Jaguar-Eagle cult, Aztec numbers, and the "earth monster."

The Nahuatl-speaking Pipil may, after all, be responsible at this time for the spread of Mexican influence southward into the western slope of Guatemala, even if Pipil is "too comprehensive" a term and the Cotzumalhuapa region, as pointed out by Thompson, was not Pipil-speaking at the time of the conquest.

I eliminate the "date" on Stela 1, the Herrera stone, at El Baul from the present discussion, agreeing with Thompson that it cannot be regarded as having a Cycle 7 date. There are several reasons for thinking that this stela more nearly approaches the Zapotec style than the Mexican. There are bar-and-dot numerals; the design above and, to a lesser extent, that below the figure show similarities to those on Zapotec stelae; and under the bars and dots is a glyph which seems to be the day sign, Malinalli, composed of a curious rendering of the lower jaw. The same glyph is found as the day sign in the Nuttall Codex and also in those of the Borgia group (Seler, Collected Works, 1:431, 115–17; Caso, 1938, p. 180; Waterman, 1924, 1929).[20]

The horizon style-marker, Plumbate pottery, comes into the picture. Here in the south tall cylindrical vases of Plumbate noneffigy ware put in an appearance in the Amatle and perhaps the Pamplona phases at Kaminaljuyu,[21] and in other sites, most certainly before the end of the Great period. Effigy Plumbate does not appear until after the end of the Classic era.

The presence of foreign influence here in the south which is more or less contemporaneous with the important Mexican period in Yucatan is seen in the Alta Verapaz and in El Quiche, Guatemala. It is marked by the absence of figure-painted pottery and, in general, the disappearance of polychrome wares.

We have already considered the possibility of metal being present before the end of the Great period. During Mexican times, however, it appears as a far more important criterion of age, both with and without Plumbate. Copper and gold objects of this period are often found associated with turquoise mosaics and vessels of alabaster.

In the highlands of Guatemala there are several centers of importance, some of which have earlier levels (Zaculeu, for example), but the main occupational period seems to date from a late Mexican era and their history, in many cases, continues down to the coming of the Spaniards. With few exceptions these sites are not in the open, as are those built in the Great period, but are on headlands which could be easily defended. Zaculeu, Rabinal, Utatlan, and Iximche are among the most important of these cities. At the time of the conquest, Zaculeu was occupied by the Maya-speaking Mam, Utatlan was the capital of the Quiche, and Iximche was the main center of the Cakchiquel.

Just as we shall find a literature for the Maya in the Books of Chilam Balam to cover, however inadequately, the history of Yucatan, so here in the south there are post-Columbian texts of the 16th and early 17th centuries, in various Maya dialects, written in European script. The most important of these sources are the Quiche Popol Vuh (Goetz and Morley, 1950), the Memorial of Tecpan-Atitlan or the Annals of the Cakchiquels (Recinos and Goetz, 1953), and the newly discovered manuscript in Chontal (Scholes and Roys, 1948). A Tzeltal document, reported in Chiapas at the end of the 18th century, has disappeared.[22]

Mexican periods in Yucatan. It is no longer possible to believe that peoples from Mexico entered the peninsula either as a single unit or at any one time. Increasing knowledge of this area has ended the simple story of a great, all-powerful race of Toltec warriors invading Chichen Itza, conquering and ruling the country.

There are many questions that arise regarding the presence of foreigners in the peninsula. How many invasions were there? When and whence did they come? What were their several contributions to the sum of knowledge over that already possessed by the residential population? Finally, can any of these intrusive people be given a name?

Early influence from Mexico. Some strength is given to the belief that northern objects, ideas, and peoples entered the peninsula before the time usually ascribed to their appearance near the end of the first millennium. It may, indeed, have been as early as the introduction of Mexican wares from the north at Kaminaljuyu and a few other sites in Guatemala. The Acanceh stucco bas-relief, all authorities agree, is contemporaneous with an early structure dating from Classic times, and yet the figures have a strong Mexican feeling. There are speech-scrolls here not unlike those at Teotihuacan. At Uxmal and at Sayil there may have been the same early influence at work.

Transition from Yucatan-Maya to Toltec. This change from a purely local culture to one mixed with elements from afar covered a considerable period. Proskouriakoff (1950, p. 170) writes: "It is possible that Toltec immigrants were in the country for some time before they established themselves as a dominant group at Chichen Itza or that they were settled for a time in some peripheral location where they were in contact with the people of Yucatan."

From the "Puuc Classic" at Kabah there is a series of altars, a wooden lintel, and two sets of carved stone door jambs which present varied historical origins. Proskouriakoff (1950, p. 169) considers the lintel as "Late Classic, Dynamic Phase," the altars and the jambs of Str. 2A3 as "Late Yucatan Variant?" and the

jambs on Str. 2C6 as "even possibly Toltec." Thus, at one site, there are different degrees of mixture of the Classic of the south, Yucatan-Maya or Puuc, the Maya at Chichen, and Toltec Maya. To the Maya-Chichen type should probably be included the figures on the Halakal Lintel, dated 10.3.0.0.0, at the end of the Great period, the jamb at Halal, Stela 15 at Etzna, and Stela 21 at Oxkintok, where the oblong shield is one of the diagnostic traits associated with Maya figures at Chichen on structures definitely dated in the Toltec period. Thus, as we shall see later, not only do Maya traits recur in Yucatan with a Toltec background but also—and far more difficult to understand—do we find in Classic times occasional features which are usually considered as late and of Mexican derivation. Among these are representations of the god Tlaloc, the so-called diving god, *atlatls* or throwing-sticks, and human sacrifice.

Toltec-Maya periods. As we have seen, the erection of dated monuments ended, so far as the present evidence shows, about the year 900 (10.3.0.0.0). The next hundred years, called by Thompson the "Transition Period," is marked probably by the general abandonment of the sites of Rio Bec and Los Chenes and most of those in the Puuc. Near the beginning of the second millennium there seems to have come a very considerable movement of new peoples into Yucatan from a distance. This alien population was the so-called Tula-Toltec group. Are some of these people to be called Itza? What was their relation to Quetzcoatl-Kukulcan? We find that their contribution to the indigenous culture was considerable. The center was at Chichen Itza. Attempts to answer some of these questions will be considered in discussing the history of this city. The study of identities and similarities between the art, architecture, design, and cults of Chichen and those at Tula, Hidalgo, will be taken up in Chapter III. Responsible for the advent of these new features were the Toltec, who are actually depicted with the Maya on fresco, on bas-relief, and on the gold disks dredged from the Cenote of Sacrifice. This is considered in Chapter IV.

Diagnostic traits in the pottery found in Yucatan during this period of primary Mexican influence are represented in Effigy Plumbate and Fine Orange (Type X), together with metal objects, alabaster vases, and some other new features.

Time. The legendary and historic accounts of the coming of the Mexicans to Yucatan and, especially, to Chichen will be discussed later.

According to the archæological interpretation of the Chichen situation, the main Toltec period ran roughly from 10.6.0.0.0 (948) to 10.16.0.0.0 (1145).[22] This has been called Chichen II (Stage A). This was followed by an epoch (Chichen III, Stage B) beginning about 10.16.0.0.0 (1145) and ending about 11.2.0.0.0 (1263) with the founding of Mayapan. Later we shall see that archæologically, Chichen III can probably be divided into B′ and B″, the first when the Maya element is dominant, the second when the Toltec regime is in power. This is the period when the Itza first put in an appearance.

Terms. Various names have been applied to this Mexican epoch.[24] If the word "Mexican" is used, it should be understood that it is to be considered only in its present geographical sense. Ethnologically, there were neither Aztec nor Mexicans in the period now being discussed. Those who founded Tenochtitlan in the 14th century were probably first called "Atzlaneca" and, later, "Mexica," according to Barlow (1945).[25]

The influence brought to bear on Yucatan at this time and, more especially, on Chichen can properly be called Toltec if this term is used to refer to a period post-Teotihuacan and pre-Aztec. This association with Tula de la Teotlalpan in the state of Hidalgo came in the period known as Chichen II.

Another term is suggested for this stage in the history of the latter site, Toltec-Maya, as many of the resemblances found at the Yucatecan city seem to be far more widely distributed in Mexico than those definitely associated with the signal site of Tula. Furthermore, much of the previous Maya period in architecture and art remains, or the former features are modified by the new features. Proskouriakoff uses the term "Chichen Maya" for the latter.

Period of Decline (1145–1460)

It is difficult to determine the exact chronological limits of this stage.

In the south. The late advent of a Nahuatl-speaking people into Guatemala, where they settled in regions topographically easy to defend, has been considered. Here we are not concerned with the advent of Mexicans into the southern Central American region, as it is outside the area occupied by the Maya culture.

In Yucatan (1145–1460). This period has been designated by various terms.[26] At Chichen, as already indicated, it seems to have included the second of the two Mexican periods, Chichen III, marked by the abandonment of Chichen Itza by the Toltec and by the advent of the Itza and Chichen IV, contemporaneous with the founding and with much of the history of Mayapan and that of the East Coast. The end of the period comes at the "destruction" of Chichen by Hunac Ceel in 1451 when some of the Itza went south and the "destruction" of Mayapan in a Katun 8 Ahau (1441–1460).

The pilgrimages to the Sacred Cenote at Chichen also probably began toward the end of this epoch.

Nahuatl-Chontal invaders. An advent of Mexicans into the southern part of the peninsula is told by Scholes and Roys (1948, p. 78). "The history of the ruling family of Acalan begins with the arrival in the region of Tenosique on the Usumacinta River of a leader named Auxaual [born about 1343] and four 'great principal men.'" Three of the five names of these leaders may be Nahuatl. It seems probable that they had been driven out of Cozumel. One of the men was named Chac balam ("red-jaguar") which "reminds us of a foreign conqueror named Ekbalam ('black jaguar'), who entered northeastern Yucatan from the east coast and founded a town of the same name north of Valladolid. He was also noted as a sorcerer. After ruling for forty years, he and his captains became unpopular and were killed by the plebeians. . . . We infer that Ekbalam and his followers, like the ancestors of the Acalan ruling class, were a Nahuatl-Chontal group. . . ."

Roys (1948) points out the similar pattern: uprightness followed by a sudden period of deterioration in morals in the story of the Three Brothers associated with the history of Chichen Itza, and the conquest of Ekbalam by a leader of the same name and his four captains.

Period of Abandonment (1460–1542)[27]

For some time before the arrival of the Spaniards, civil war raged in the peninsula, and most of the great cities seem to have been abandoned.

Los Rios y Lagunas. There is a region in southwestern Campeche, stretching into Tabasco, which Ruz (1945) has called "Los Rios y Lagunas." To this area should probably be added

the country between his Los Rios and the coast which I consider the southern half of his "La Costa" area.

In general, it is a region of relatively small archæological importance. Southeast of it lie the many sites belonging to the Classic culture centering in the Peten; to the east is the Rio Bec group of ruins.

Although Archaic remains are reported on the southwestern coast of the peninsula, most of the archæology is late and seems to belong near the last period of native Yucatan history. There are evidences of a phallic cult, which will be discussed later. Pustunich is a representative site. Telantunich in west-central Quintana Roo may belong to the same culture (Andrews, 1939, 1940, 1941a, 1941b, 1943; Ruz, 1945, map and chart).

The region is of more historical than archæological interest, as we shall see in Chapter VII on Trade. It was the area occupied in general by the Chontal-speaking Maya, and formed the meeting place of people coming from Mexico and the north and those fanning out into the peninsula of Yucatan and along its base eastward to Honduras. This is the part of the territory of the *entradas* of Grijalva (1518), Cortés (1519), and Avila (1531); the land of the *Cacicazco* of Acalan is located here.[28]

"Ceased to Be Called Maya"

Although there is some evidence that a few of the cities along the eastern coast of the peninsula continued to be occupied down to Spanish times, Maya archæology, so far as Yucatan is concerned, can be said to be over soon after the fall of Mayapan.

In Chronicle II of the Chilam Balam of Chumayel (R. L. Roys, 1933, p. 140) we read: Katun "8 Ahau [1441–1460] was when their town was abandoned and they were scattered through the entire district. In the sixth katun after they were dispersed then they ceased to be called Maya."

Katun "11 Ahau (1539–1559)[29] was the name of the katun when the Maya men ceased to be called Maya. They were called Christians; their entire province (became subject) to St. Peter and the reigning King (of Spain)."

This outline of the history of the Maya has been considered almost exclusively along archæological lines. The rest of the story told here centers primarily around the site of Chichen Itza with its Maya period, from about 600 to 948 (Chichen I); the Toltec-Maya era, from about 948 to 1145 (Chichen II), already touched upon; the coming of the Itza and the Period of Decline from about 1145 to 1460 with the foundation of Mayapan and the fall of Chichen and Mayapan (Chichen III and IV); and, finally, the Period of Dissolution (Chichen V) and the Spanish conquest from about 1460 to 1542, the foundation of Merida.

This history is taken up in detail in Chapter II, in each period, first from the legendary and historical and, second, from the archæological point of view.

II

HISTORY OF CHICHEN

1. LEGENDARY BEGINNINGS OF YUCATAN AND OF CHICHEN

Having considered in outline the archæological picture of the entire Maya area, we now come to the ancient city of Chichen Itza, together with Uxmal in its latest period and with Mayapan and Izamal, all three having in some measure a part in the history of Chichen as well as of Yucatan. It should be pointed out that with a few exceptions the aid afforded by definite dates recorded in the Initial Series, found so abundantly in most of the southern areas, is not available for that part of Yucatan covered by the present study.

Written Sources

In addition to the ancient structures—their architecture, basreliefs and other sculpture, frescoes, and wood carving—the few definitely dated inscriptions, the pottery and other artifacts, there is besides, in Yucatan, a literature.

Pre-Columbian codices. They contain, so far as they can be translated, no historical data, but they often aid the study of customs and religion and will be referred to many times.

Landa (1941, p. 28) says of these pre-Columbian manuscripts that they "were written on a large sheet doubled in folds. . . . And they made this paper of the roots [*sic*] of a tree. . . ." These books were called *analtes* by Cogolludo (9, XII) and by Villagutierre (6, IV), who cite Fuensalida as a common source. Seventy years after the conquest, Sanchez de Aguilar (1900 ed., p. 95) wrote of these books; as late as 1697, Villagutierre (6, IV) reports they were being made by the Itza in the Peten.

Landa is the one usually held responsible for a wholesale destruction of these documents, the charge being based on this passage in his *Relación* (1941, p. 169): "We found a large number of books in these characters and, as they contained nothing in which there were not to be seen superstition and lies of the devil, we burned them all, which they regretted to an amazing degree, and which caused them much affliction." Curiously enough, there is no contemporary account yet brought to light definitely associating the burning of books with Landa's *auto de fe* at Mani in 1562; his statement is found, not in connection with his Inquisition, but in his description of the "characters" of the Maya writing.[1]

There are now in existence three known codices, all presumably copies of earlier manuscripts: the Dresden, the last date in which is 1178; the Peresianus or Paris, placed by Thompson as "slightly later or the same as that of the Dresden"; and the Tro-Cortesianus or Madrid, dated from about the middle of the 15th century.[2]

16th and 17th century records. These early accounts are written in the Maya language after it had been recorded phonetically in Spanish characters. They are far less satisfactory for history than for the legendary side of the cultures but, nonetheless, they are important. In the early study of the Maya, when archæological details were comparatively few and indefinite, especially those relating to ceramics, great reliance was laid on these records; but, with a rapidly expanding knowledge of architecture and art and with an exact, sometimes stratigraphical, study of ceramics, the situation has changed. Less and less weight is being given to the early written data, for they appear difficult to reconcile one with another and undoubtedly were written and rewritten in accordance with the special background of the various authors. But as they are part of the literature on Maya history and have been used again and again in its interpretation, they must not be overlooked here.

These records consist of several different collections.

Xiu probanzas. These are a number of series of documents: titles, baptismal certificates, *probanzas* (proofs of nobility), and family papers of the Xiu family covering the period from 1557 to 1817. Also called the Xiu Chronicle, the collection belongs to Peabody Museum and has been exhaustively studied by Roys (1941) and by Morley (1941).

Books of Chilam Balam. Another and larger group of manuscripts is the Books of Chilam Balam. How much these writings reproduce the contents of the pre-Columbian codices is a matter for discussion. Many of the large centers seem each to have had its own *chilam balam* (priest), and there has been a tendency to warp the historical record in favor of a particular group. These manuscripts contain several classes of material.

(1) Chronicles. These comprise the main part of the contents of the Books of Chilam Balam. Thompson (1937, pp. 187–88) writes:

> The chronicles of the various Chilam Balams may be studied from two points of view. They may be taken as true records of Maya history in Yucatan, or they may be considered to be compositions of seventeenth or eighteenth century re-write men, who knew very little about Maya history. In the latter case it would seem very possible that these later compilers scanned the historical writings or old songs for references to Katuns, and then strung these on a thread of continuous Katun endings in the positions which they considered most logical. It is not impossible that these compilers confused Tun [360 days] and Katun [20 × 360 days] references.
>
> If the chronicles were composed in the manner suggested above, it would be quite easy for a reference to an event to be placed in the wrong sequence or in the wrong Katun round.[3]

The Chilam Balam of Chumayel, dealing principally with the Itza, contains three different Chronicles together with two series of Prophecies and other material. The Chilam Balam of Mani and of Tizimin have mainly to do with the Tutul Xiu of Uxmal and the Itza. The Codex Perez or the Mani Manuscript (Roys, 1949) is another of the important Books of Chilam Balam. Tozzer (1917, 1921) lists and discusses these documents.

(2) Prophecies. Avendaño (1696, f. 35) writes: "I told them that I wished to speak to them of the old manner of reckoning which they use, both of days, months and years and of the ages, and to find out what age the present one might be (since for them one age [katun] consists only of twenty years) and what prophecy there was about the said year and age. . . ." [4]

One type of prognostication supposedly foretold the coming of the Spaniards and the new religion. The Tizimin account says: "There shall be known the time of the white men, the bearded ones, just as the priest Chilam declared the time of the arrival of their elder brothers, just as the host of the Itza

arrived among them." This will be discussed later.[5] It is probable that, at the beginning, these prophecies applied to the return of Quetzalcoatl or Kukulcan. In fact, some natives identified Cortés with the returning culture hero.

Other prophecies concern the "good" and "bad" days in the sacred almanac, the *Tonalamatl* or *Tonalpohualli*. These will be considered in Chapter VI where the preliminary acts of the ritual are given.

There are also the important katun prophecies, forming two series which are found in the Books of Chilam Balam. Roys (1933, p. 132; 1954) gives the two from the Chumayel.

Finally, there is a type of prophecy found in Books of Chilam Balam of Mani (Codex Perez) and Tizimin. "It consists of a series of predictions for the 20 tuns, or 360-day periods which make up a certain Katun 5 Ahau" (Roys, 1948, p. 91; 1949; 1949a). We will allude to these again later.

Roys writes (1948):

> I have come to believe that some of the historical traditions which the 16th-century Indians related to the Spaniards are a more reliable guide than the 17th-century Maya Chronicles, in spite of the very valuable details which we find in the latter. Even for these details, I believe that the historical allusions in the Katun prophecies, so far as it is possible to identify them, are more authentic than the Chronicles.

In his latest work (1954) he discusses the prophecy for 6 Ahau with the story of the Three Brothers in connection with that by Landa. He finds a remarkable resemblance between the two which offered reason to believe that the two historical traditions were variants of the same story.

For the history of Chichen we shall find these prophecies, especially those from the Chumayel, to be of the greatest use.

(3) The katun count. The katun is a period of 7200 days (360×20). The last day of this period is always Ahau and the numbers 1 to 13 are assigned to each one. This is derived from the remainder, 11, from 7200÷13. If the first number is 1, the second is 1+11=12, the third is 12+11=23−13=10. The sequence is:

1 Ahau	13 Ahau
12 Ahau	11 Ahau
10 Ahau	9 Ahau
8 Ahau	7 Ahau
6 Ahau	5 Ahau
4 Ahau	3 Ahau and beginning
2 Ahau	again with 1 Ahau

It should be noted that the same katun returns with the same number every 260 years (20×13) or, more accurately, every 256 years and 160 days.

Table 1 shows *one* attempt to reconstruct the records of the katuns as shown in the various Books of Chilam Balam. The dates selected in the Long Count and its equivalent in Correlation B are shown. Various data from other sources are given.[6]

Relaciones. The Spanish records offer an abundance of material that is of great historical value.

(1) Landa's *Relación de las cosas de Yucatán.* Written about 1566, this work occupies first place in the literature. It was discovered by Brasseur de Bourbourg in Madrid and first published by him in 1864. The importance of the manuscript can be gauged by the fact that it has gone into eight editions. It covers practically every phase of the social anthropology of the ancient Maya of Yucatan, the history of the Spanish discovery and conquest, the ecclesiastical and native history, and the first accurate information on the hieroglyphic writing. It is especially complete on Maya religion and rituals. With the exception of Sahagun, no other manuscript of New Spain discusses adequately a similar range of subjects.

(2) 1577 Questionnaire. Another most important source are the two volumes of the *Relaciones de Yucatan.* These 50 reports, dated in 1579 and 1581, were made by some of the *encomenderos* of the peninsula to the Council of the Indies as the result of a questionnaire sent out by the Council in 1577 from Spain. Several of them, coming from towns in western Yucatan, were written or inspired by Gaspar Antonio Chi. His exaggerated account of the importance of his ancestors, the Xiu, will be discussed later.[7] He also has a *Relación* of 1582, found by Scholes, translated by Roys, and published by Tozzer (1941, p. 230).

Another *Relación,* that of Antonio de Ciudad Real (1588) on Fray Alonzo Ponce, is considered by Roys (1948) to be of enormous value as it seems to be more nearly true than many of the statements attributed to Gaspar Antonio Chi in the *Relaciones de Yucatan.*

Also of interest in this study are early authors, listed in the bibliography: Oviedo y Valdes, Lopez de Gomara, Cervantes de Salazar, Herrera, Lopez Medel, Sanchez de Aguilar, Lizana, Peter Martyr, Lopez de Cogolludo, Avendaño, and Villagutierre.

There is also the Valladolid document which was part of the testimony in a lawsuit in 1618 (Brinton, 1882, p. 118; Tozzer, 1941, p. 21; Roys, 1948). Roys (1949b) has gathered together and reprinted much of the contents of these early references.

(3) Other colonial manuscripts. Roys has written treatises on early family histories, place names, land titles, personal names, a census of Cozumel, Indian background, conquest sites, and, with Scholes, on the early Chontals (see titles of his books in bibliography).

Sixteenth-Century Speculations on "Origins"

It is not necessary to review here the abundant early literature on the ideas regarding the "beginnings" of Maya culture. The genesis of this civilization is ascribed to people from Atlantis (by Oviedo and Gomara, among others), to the Ten Lost Tribes of Israel (by Las Casas), and to the inhabitants of other faraway countries.

Regarding Yucatan, we find in three of the *Relaciones* (RY, 1:177, 201, 243) of 1581: "The ancients say that those who anciently came to people this land [of Yucatan] were those who founded Chichen Itza, a very ancient city [*poblacion antiquisima*] and according to the computation of the Indians, the first that was founded in these provinces after the Flood" (Jakeman, 1945, p. 95). Repeated many more times in the *Relaciones* is the statement: ". . . on the said towers [at Izamal] were some figures made of cement . . . which appeared to be armed giants. . . . And therefore the natives say that those who built the said edifices were men of greater stature than those of this time."

Writing in 1548, Bienvenida said of the ruins at Tihoo or Merida: "There is no recollection of those who built them. Seemingly they were made before the coming of Christ because so high is the forest over them. . . . The natives do not live in them, they make houses of straw and wood."

Sanchez de Aguilar states: "The only tradition and memory they have of this (the time of their paganism) among them is

through the famous, great and magnificent buildings . . . which they left at Oxumal [Uxmal] and at Chicheniza [Chichen Itza]. . . . One judges that they [the buildings] are the work of Mexicans and not of the Carthaginians as some of our people have thought" (1892 ed., pp. 94–95; Tozzer, 1941, p. 21).

Landa (1941, p. 16) shows his good sense when he writes: "Some of the old people of Yucatan say that they have heard from their ancestors that this land was occupied by a race of people, who came from the East and whom God had delivered by opening twelve paths through the sea. If this were true, it necessarily follows that all the inhabitants of the Indies are descendants of the Jews. . . ." It is clear here that the Bishop does not accept this theory. He is more explicit where he writes (p. 18), "These buildings have not been constructed by other nations than the Indians."

Landa's appreciation of the civilization of the Maya and its origin comes out clearly (p. 170):

> If Yucatan were to gain a name and reputation from the multitude, the grandeur and the beauty of its buildings, as other regions of the Indies have obtained these by gold, silver and riches, its glory would have spread like that of Peru and New Spain. For it is true that in its buildings and the multitude of them it is the most remarkable of all the things which up to this day have been discovered in the Indies; for they are so many in number and so many are the parts of the country where they are found, and so well built are they of cut stone in their fashion, that it fills one with astonishment. . . . the great abundance of stone and lime and of a white earth, excellent for building . . . had given them an opportunity of erecting so many buildings, that except to those who have seen them, it will seem to be jesting to tell about them.
>
> Or else this country hides some secret, which up to this time has not been discovered, nor have the natives of this day discovered it either, for to say other nations, having subjected the Indians, have built these buildings, is not so, because of the indications that exist that the buildings were erected by a race of Indians and naked, as is seen, on one of the buildings. . . .

Cogolludo (4, III) follows Lizana and gives some additional information regarding their first priest called Zamma (see Chapter III-7F).

There are comparatively few references to the erection of any buildings contemporaneous with the accounts of personages who can be identified. The Three Brothers, whom we shall hear of later, are said to have built "very beautiful temples" at Chichen Itza; "many and magnificent buildings especially one which was the largest [the Castillo at Chichen]" (Landa, 1941, pp. 19, 177). This last structure was said to have been erected in honor of Kukulcan. Others at Mani, Mayapan, and Champoton were directly associated with him (Tozzer, 1941, p. 307).

In a *Relación* (RY, 1:143) where the ruins of Tihoo are described, we read of the large and fine buildings, and "when the above-mentioned structures were erected, the whole land was peaceful and the lords of Chichen, an old town, . . . governed it."

Some of "the warlike and valiant people and lords" from Mexico mentioned in the Valladolid document "remained in Chichen Itza, who were those who built the sumptuous edifices which are in the said locality" (Brinton, 1882, p. 116; Tozzer, 1941, p. 21).

It seems clear that there is no early recognition of difference in age of the various centers or of structures at the same site.

"Discovery" of Chichen

However slight may be the possibility of giving any historical value to the old Chronicles of Chilam Balam regarding beginnings, a review of these early accounts is worth while. They belong, perhaps, under Mythology or Legend.

The unreliability and irreconcilability of these early statements is no better illustrated than in the data relating to the "discovery" of Chichen Itza (Table 1). It is recorded as having taken place at three different times within a period of about 60 years. The difficulty is not lessened when one recalls that each of these dates recurs about every 256 years.

In the Tizimin manuscript we learn that in a katun ending in 8 Ahau (9.13.0.0.0, 692),[8] "It occurred that Chichen Itza was learned about." In Chumayel I, in a katun ending in 6 Ahau (9.14.0.0.0, 711) "was when the discovery of Chichen Itza occurred." In the Chumayel II, in a katun ending in 4 Ahau (9.15.9.9.9, 731) Chichen was "discovered."[9] The latter reads:

> 4 Ahau was the Katun when they sought and discovered Chichen Itza. There it was that miraculous things were performed for them by their lords. Four divisions they were when the four divisions of the nation, as they were called, went forth. From Kincolah Peten in the east one division went forth. From Nacocob in the north one division came forth. But one division came forth from Holtun Zuyua in the west. One division came forth from Four-peaked Mountain. Nine Mountains is the name of the land.

According to the Mani manuscript, which has to do mainly with Tutul Xius who are supposed to have founded Uxmal, they ruled Ziyancaan or Bakhalal for three-score years (Katuns 4, 2, and 13 Ahau, 475–514), "in these years . . . it occurred then that Chichen Itza was discovered."

None of these dates is regarded as historical, but they are given here to complete the Chilam Balam entries of this event.

"Peopling" of Yucatan

The earliest archæological evidence of human occupation in the peninsula, that in the Archaic period, has already been discussed. This era is not recorded in the Chronicles so far as can be made out.

The "descents." There are several parallel early references to an "east and west descent" but there is a present tendency to expunge these completely from the historical picture. This advent of peoples, however, is too prominently a part of the record to throw it completely aside.[10] The most extended account is that given by Lizana (1, III).

> They (the priests) know that the inhabitants came in part from the west, in part from the east and thus they call in their own language the east different from what it is now called. At the present time they call the east *likin* which means "where the sun rises above us." And the west they call *chikin*, that is "the fall or end of the sun" or "where it hides itself from us." But in the olden times they called the east *cenial (dze-emal)*, "the little descent" and the west *nohenial (noh-emal)*, "the great descent." And it is a fact that they say that from the east there came to this land but few people and from the west a good many . . . whoever they may have been.

The Chumayel II gives this advent a date and, as we have seen, links it with the "discovery" of Chichen. "4 Ahau was the name of the katun when they descended, the great descent and the little descent they were called."

An eastern "descent" may be intended in the Chumayel, which gives a migration legend that Roys (1933, p. 70) thinks refers to a much earlier period than that associated with the Hunac Ceel account where it is found. There is a long list of towns starting with Pole, a port on the East Coast. At the end of the many place names connected with the wanderings we read (p. 72): "These are the names of whatever towns there were and the names of the wells, in order that it may be known where they passed in their march to see whether this district was good, whether it was suitable for settlement here."

There is some reason for considering "the little descent" from the east as being reflected in the early dates in the Initial Series, along the eastern part of the peninsula of Yucatan, at Tulum (9.6.10.0.0, 564), at Ichpaatun on Chetumal Bay (9.8.0.0.0, 593), and at Coba (9.9.0.0.0 to 9.12.10.0.0, 613–682). Some evidence is given by Thompson (1939, 1945) on this eastern advent where he shows that the basal-flanged bowls, so typical of the early Great period at Peten, are found at Yaxuna, Kabah, and Merida, Yucatan. From the point of view of representative art, it has already been pointed out that one class of design seems to have come into the peninsula from Peten, Coba, and thence westward while another trend came north from the Usumacinta. Thompson (Thompson, Pollock, and Charlot, 1932, pp. 193–201), who discusses the "Great" and the "Little Descent," finds it more difficult to identify the former, from the west, but he points out the early influence in northwestern Yucatan from Chiapas and the Usumacinta.

It may be suggested that these two "descents" may not have occurred at the same time and, also, there may have been more than a single "descent" for the west and another for the east. They may not refer to the first populations but to a later one, a migration of the Maya coming from the southeast and another, possibly the Tula-Toltec arriving, some time later, from the southwest. (See Lothrop, 1924; Morley, 1927, 1938; Thompson, 1932; Tozzer, 1934; Barrera Vasquez and Morley, 1949.)

2. CHICHEN I: LATE CLASSIC STAGE: YUCATAN-MAYA (600–1000) ARCHÆOLOGY

Unlike the situation in other parts of the peninsula, the archæological evidence up to this time is either lacking or very meager for occupation of Chichen Itza either in the Archaic horizon or in the first half of the Classic. The first structures discovered are datable in the second half of the Classic period, from about 600 to about 1000.

Criteria of Selection

With a few exceptions, it is not difficult to single out those structures at Chichen which are Maya or Yucatan-Maya and date from the late Classic stage (see Ruppert, 1952, for description and bibliography for each structure). The plans of most of them conform to a few patterns: a single room as in Str. 4C1 (the Iglesia); a single line of rooms as in Str. 7B3 (Temple of the Three Lintels) and Str. 7B2 (fig. 4); a room or line of rooms with one room projecting at either end, Str. 5B7 (fig. 5) and Str. 5D2 (fig. 6); a line of rooms behind a long outer apartment, Str. 5B25 (fig. 7) and Str. 3C9 (Casa Colorada); two or three lines of rooms with one or two transverse rooms at either end, Str. 5C14 (House of the Phalli, fig. 8) and the first unit of the Monjas, Str. 4C1.

Various buildings without columns and described by Ruppert as having "long horizontal blocks of stone for jambs" or "vault stones not of the veneer type" are usually considered to be Maya structures.

The presence of a hieroglyphic lintel would seem to indicate a building belonging to Chichen I, such as Str. 7B4 (Temple of the Four Lintels). Str. 7B1 (Ruppert, 1952, fig. 149,*d*), on the other hand, is of Mexican type, but the inner doorway has a lintel with glyphs and "jambs of large blocks" which probably is a re-used door of an earlier structure. The so-called Temple of the Hieroglyphic Jambs is a building of the patio type, clearly assigned to the Mexican era. The jambs are described as weathered (Beyer, 1937, p. 34, pl. 1), and they seem to have been used as part of a doorway of a previous edifice. The Initial Series lintel, although found in connection with at least two later constructions, undoubtedly once served in a Maya building, the remains of which are mostly covered.

A Toltec building (Str. 6E1) has Maya figures on the columns; and one drum shows glyphs. The inscription on the High Priest's Grave, another building with a Toltec plan, will be discussed later.

The structure at Halakal (fig. 9), about 3 miles east of Chichen, has a hieroglyphic lintel, which goes with its Puuc-like façade.

Table 2 gives most of the structures which are considered to date from Chichen I, the second half of the Great period. Of these there are possibly two groups: one which derives from the Late Classic of the Peten and other southern sites, and the second which is similar to the type of culture found principally in central Yucatan, usually called the Puuc. Both are more or less contemporaneous. Here the second group has been called Yucatan-Maya as it is found mainly in the peninsula and is architecturally and, to a great extent, artistically quite different from the culture found in the Peten and along the Usumacinta.

Possible late southern Classic structures. The first two buildings listed in Table 2 seem to belong in this classification mainly because of their plan and the heavy character of their stone walls and vaults.

House of the Phalli. The original plan of this structure, 5C14, seems to have had the characteristic two ranges of rooms (in this case three), with two transverse rooms at either end. Another room was added later in front of the middle room on the north side (Vaillant, 1926).

Monjas, east wing. The second building which may belong here is the earliest period of the Monjas. Bolles (1932–34) made an exhaustive architectural study of the building. He found that the first unit was the east court and terrace, various plinth courses, and the east wing of the building but, presumably, without its present Puuc type of decoration on the façades. The fact that this structure runs under the large high platform to the west suggests the Akabtzib and other buildings in the Puuc and southward. The earliest part consists of a typical range of rooms (in this case three rooms wide) of four chambers each with a transverse room at either end. This plan is a very common one in the south.

Yucatan-Maya structures: the Puuc. All the other buildings listed in Table 2 seem to belong here culturally. There may well be differences of opinion on including some of these as Maya. More extensive excavation, it is hoped, will furnish the evidence on this point. Those at the end of the list are placed there on the very slight grounds now available.

If the Maya buildings of this culture at Chichen are scrutinized, it will be found that there are some basic differences be-

tween the structures of the Puuc of west central Yucatan and those of the corresponding period here. This comes out clearly in the absence at Chichen, at this time, of the pyramidal temple, such as is seen at Uxmal, Labna, and Kabah; the arrangement of buildings around a court; terraced structures, such as the Sayil palace; columnar entrances of the Puuc type; and stelae like those found at Uxmal and Labna. All the Maya buildings at Chichen rest on a high or a low platform or plinth; the lintels are generally of stone and are often carved. In several cases, they seem to have been reset in their present positions.

Monjas. The largest Maya structure is the Monjas or Nunnery, partially described above, which shows a constant succession of changes continuing into the Mexican periods. The neighboring Iglesia seems to have had a part, at least, of its façade rebuilt.

Akabtzib. This is not unlike the Monjas in plan. There is a high platform, but the top is not reached by a stairway nor does it support any building. Two rooms have been built into this mass on the western side at ground level. On either side of the platform, evidently later in construction, there is a series of eight rooms including two transverse rooms at the end. Between the first and second room on the south side is a sculptured stone lintel.[11]

Caracol. This round structure would seem normally to belong in the following period. Landa (1941, p. 25) mentions in connection with the Quetzalcoatl-Kukulcan cult "the building of a round form with four doors" at Mayapan, which he regarded as "entirely different from all others in the land." The masonry of the Chichen building, together with the medial molding and the fact that hieroglyphic inscriptions have been found, seems to show that it belongs in this Maya period. One of the façade figures (Ruppert, 1935, fig. 229) is not greatly unlike that on the eastern face of the Monjas, and some sculptured stones (*ibid.*, fig. 181) found at the Caracol are similar to those used on either side of the Monjas figure. The structure shows extensive rebuilding and additions. On the northeast, southwest, and south sides are numerous "annexes," dating from Toltec-Maya times. The main portion was repaired by Ruppert.

Temple of the Three Lintels. This structure, restored by Paul Martin for Carnegie Institution, is the most perfect and, perhaps, a unique example of a pure Puuc building at Chichen (see elevation and plans by Remondet in Ruppert, 1935, fig. 108).

Casa Colorada and the *House of the Deer* are other excellent examples of Maya buildings.

The so-called flying façade, a Puuc characteristic, is found on the Colorada, the Deer, the Iglesia, and some others. The first of these also has a roof comb.

South of the Temple of the Phalli is "a heavy block of rooms, with engaged columns at the corners, serpent masks with human heads in the jaws" (Vaillant, 1926, p. 160), called on account of the decoration on the façade, the House of the Shells (Str. 5C5). This certainly is classified as a Yucatan-Maya building. Also included in this period is the substructure and first temple (Str. 5C4) in which the lintel with date in the Initial Series was used.

Distribution of Buildings

The main group of Maya structures (fig. 1)—all the most important ones of the period, excepting the Phalli (Str. 5C14), the Monjas (Str. 4C1), the Akabtzib (Str. 4D1), and the Caracol (Str. 3C15) but including the Casa Colorada (Str. 3C9) and the House of the Deer (Str. 3C7)—is located south and west of the great center of Toltec times. The second most important group (Strs. 7B1–4) lies at the end of a long road (Sacbe No. 7) starting west of the Monjas and running south about 1500 m. West of this old road come Strs. 5A3, -4, 5B3, -4, -7, and 5B20, -22, -25 in the "Southwest Group." East of the sacbe come Strs. 5C4, -5, -14 in the group of the Phalli, Strs. 5D2, -4 to the northeast, and Strs. 6E3, -5 in the group of the Hieroglyphic Jambs. One Maya building is at the neighboring site of Halakal. This makes 25 structures in the Maya list, a few of which have been noted as problematical.

Outlying Groups at Chichen

There are a few buildings or clusters of buildings which lie outside the area covered by any map of the city but which are usually considered part of the site. They belong to all periods in the history of Chichen. (1) East Group, reached by Sacbe No. 6, and beyond it a Far East Group. (2) Chultun group, to the east (Roys, 1939a). (3) Halakal, 4 km. to the northeast, already mentioned. (4) Holtun: 1 km. south of the town of Piste. (5) Temple and tomb of the Painted Capstone, between Casa Redonda and the hacienda. (6) Casa Redonda. (7) Yula. In several of these areas are features of interest which will be considered in their appropriate places.

Hieroglyphic Writing

Initial Series lintel. Most of the dates at Chichen are placed in the Maya period. The only one found up to the present time, expressed in an Initial Series, leads definitely to 10.2.10.0.0 (879).

It should be noted that this date is only 10 years before that usually given as the end of the Great period, 10.3.0.0.0 (889). Furthermore this single Long Count date at Chichen was on a lintel and almost certainly re-used in the foundation of a building (Str. 5C4), probably dating from the latest Mexican period. In 1902, when I was first in Yucatan, the stone had not been "discovered." Later it was pulled out of a wall where it seems to have been re-used as part of the foundations of a temple clearly dating from the Tula-Toltec period. E. H. Thompson placed it in position as a lintel supported by two atlantean figures which clearly belong in the Mexican era (Morley, 1913, pls. 4, 13). Still later, a stone missing from each of these supports was found by Vaillant and introduced into the figure, one at each side; the lintel, again incorrectly, was replaced on the two supports (Gilpin, 1948, fig. 24).

Katun-Ahau reckoning. Excepting the single Initial Series date, there are about 17 dates at Chichen and vicinity, showing in most cases a day and its number, a month and its number, with a tun and its number, followed by an Ahau and its number. For example, 9 Lamat 11 Yax, 13 Tun 1 Ahau. Most students of the Maya hieroglyphic writing have been reading this as "9 Lamat 11 Yax fell in a Tun 13 ending on the day 1 Ahau." It was commonly called the "Tun-Ahau method." J. E. S. Thompson (1937) proposed a system whereby this would be read, "9 Lamat 11 Yax fell in a Tun 13 *of a katun* ending on the day of 1 Ahau." This was called the "Katun-Ahau method."[12]

Thompson (1950, pp. iv, 199) has listed and numbered 34 stones or monuments at Chichen Itza which have epigraphic interest. For some of these, including two lintels from neighboring Yula and one from Halakal, Thompson suggests dates in the Katun-Ahau system, excepting that of the Initial Series (see Table 3). Most of these dates are on unmovable parts of buildings and, except for the last two, all occur within a period of less than 20 years (869–889). This would seem to mean that the buildings in which they were found were dedicated within this remarkably short period. This system of reading the dates is still somewhat on probation.

The date on the Caracol frieze (987) and that on the High Priest's Grave (1007) are difficult to understand. The latter is on a structure clearly dating from Toltec times and, probably, in the later Mexican period.

Other glyphic material. Hieroglyphs, presumably of no chronological significance, occur at Chichen: Temple of the One Lintel (Str. 7B1), Temple of the Four Lintels (Str. 7B4), Temple of the Hieroglyphic Jambs (6E3), the Akabtzib (Str. 4D1), Casa Colorada (Str. 3C9), Iglesia (Str. 4C1), Temple of the Wall Panels (Str. 3C16), painted capstones in the Temple of the Owls (Str. 5C7), the North Colonnade (Str. 2D10), and a building east of the hacienda, and on some of the gold and gilded copper disks from the Sacred Cenote. Many of these will be discussed under Chichen II.

In Chapter III-6 there is a discussion of what seem to be glyphs with bars and dots, which occur at Chichen, Tula, Xochicalco, and other places. With the exception of those in Oaxaca, they seem to have no chronological significance.

End of Maya Chichen

The so-called Classic period in Maya history is generally considered as ending about the time of the last date recorded in the Initial Series on a monument, 10.3.0.0.0 (889). We have just seen that the only date at Chichen now known in this Long Count is on a re-used lintel. This leads up to 10.2.10.0.0 (879). The Katun-Ahau dates at this site (Table 3), with two exceptions, all lead up to 10.2.0.0.0 or 10.3.0.0.0.

All this would seem to mean that the purely Maya period at Chichen ended about 900, the date generally considered as marking the "end" of the Late Classic in the south. It should be remembered, however, that the sites in the Puuc, together, in all probability, with some of those in the region of Rio Bec and Los Chenes, undoubtedly continued to exist for at least another hundred years. Unfortunately there are few dates in the Hieroglyphic Series in this region and none recorded in this system after 10.3.0.0.0.

Later, in the discussion of the presence at Chichen of a strong Maya influence existing side by side with that of the Toltec for a long period after this date, a suggestion is made that the Maya to the south, primarily located along the Usumacinta River, lingered on after the "end" of the Classic there and made themselves felt as shown by the "Chichen Maya."

Relying on the chronological Ahau pattern of the Chronicles with the main events taking place in a Katun 8 Ahau, which repeated itself about every 256 years, we learn in the Chumayel I "8 Ahau was when Chichen Itza was abandoned." This would seem to be the Katun 8 Ahau (10.6.0.0.0) running from 928 to 948. Two katuns later (4 Ahau) in the same account we learn was the time "the land was seized by them at Chakanputun." Let us assume that Maya Chichen (I) came to an "end" in 10.6.0.0.0 in Katun 8 Ahau running from 928 to 948.

This leads us to the legendary, historical, and archæological history of Chichen in the periods dominated by foreign influence.

CHICHEN II: TOLTEC-MAYA, STAGE A (CA. 948–CA. 1145)

3. CHICHEN II LEGEND AND HISTORY

In the section on Maya archæology, the influences from Mexico in the Maya area have been discussed briefly; that felt in Guatemala in Classic times, and that in the period now being considered. Roughly contemporaneous with Chichen III–IV, there is a Mexican influence again noted in Guatemala, which will be taken up later.

The changes that came to Chichen near the end of the first and in the first hundred and more years of the second millennium were almost revolutionary. Many of the basic architectural and other features of the Yucatan-Maya period continued but these were, to a great extent, subordinated by the infusion of new rituals, new ideas of architecture as shown mainly in plans, new forms of art and of decoration, together with an increase in bas-relief, much of which was associated with similar features from other centers, especially from Tula, Hidalgo.

There has been difference of opinion regarding the time when the main influences from Mexico were felt at Chichen. Some have considered that it began about 1200 and extended well into the 15th century.

In the general study of Maya archæology, an attempt was made to show that this new epoch was caused not by conquest but seemingly by a peaceful penetration by a foreign group. The most important aspect of this era, especially noted at Chichen, is the presence of an entirely new ethnological type as seen in bas-relief and fresco, side by side with the Maya.

Early Ideas of Maya and "Mexico"

It is interesting to review the opinions of various early modern Mexicanists on the interrelationships of Toltec and Maya cultures, as given by Linné (1942, p. 203). "Lehmann (1933) makes use of an earlier opinion of Seler's (1916, p. 85). . . . These two authors slide the Toltec era back and the Mayan era forward, and consider that the former has enriched the Maya with a large variety of elements, such as hieroglyphs, stelae, a certain knowledge of architecture, etc." Mrs. Nuttall (1926) held "that the Toltecs emigrated from the Maya country, while the ancestors of the Maya had come from Mexico." Maudslay (1908, 1:50–53), also "considers that Tula, Cholula and Teotihuacan were strongly influenced by the Maya." At the present time there is a La Venta school which considers that all the superior cultures in Middle America originated in southern Veracruz and Tabasco.

Tula and Teotihuacan

In much of the earlier literature it seems to have been assumed that the Toltec capital was at Teotihuacan. The size and importance of these ruins served to fill in the picture of a great metropolis comparable with the place the Toltec were supposed to hold in the early annals. The knowledge of the remains at Tula, Hidalgo, on the other hand, was very meager. Only a few carved stones were known; there were few indications of a great center of civilization there.

Several archæological investigations were needed before the distinction between Tula, Hidalgo, and San Juan Teotihuacan could be definitely determined in relation to the Toltec question in general. The first of these was the fact, made known by Vaillant and Linné, of the presence in the Valley of Mexico of a definite culture postdating that of Teotihuacan and predating that of the Aztec, and named by Vaillant "Mazapan" from an archæological station near Teotihuacan.

There is the site of Coyotlatelco, west of the pueblo of Santiago Ahuitzotla, northwest of Mexico City, excavated by Clarence Hay and myself in 1913–14 (Tozzer, 1921b). Since that time the type of pottery I called "Coyotlatelco" has been recognized in many places in the Valley. Pedro Armillas found Coyotlatelco pottery above Teotihuacan III, and the Acosta finds at Tula show the following succession of ceramic types: Coyotlatelco, Mazapan, Aztec I. "Thus," wrote Brainerd to me on October 25, 1948, "your Coyotlatelco ceramics seem the only bridge between Teotihuacan III (circa 500) and Kaminaljuyu, on the one hand, and the beginning of the Toltec at Chichen Itza, on the other."

As for the predecessors of those at Tula, Acosta believes the finds there show that the bearers of the Mazapan culture erected the buildings at Tula. It is a fully developed site, which Linné (1941) thinks had a "Tarascan" or west Mexican origin. There is certainly no trace there of Teotihuacan culture.

The second step in our knowledge of the position held by Teotihuacan in the archæological picture was the appearance in the excavations by Carnegie Institution at Kaminaljuyu, Guatemala, of ceramic identities between the Esperanza phase there and Teotihuacan III. This cross-fertilization, coming about the year 500, naturally eliminated Teotihuacan as the great Toltec center which was responsible for the Mexican influences at Chichen about 1000.

The third event in the elucidation of the respective backgrounds of Tula and Teotihuacan was the extended excavations at Tula carried on so successfully by the Mexican Government, beginning in 1940 and still continuing. The history of this exploration will be given presently.

A fourth event may be mentioned as helping to establish the certainty that the historic Tula was not San Juan Teotihuacan. Brainerd has definitely established the fact that Chichen was a site contemporaneous with the use of Effigy Plumbate ceramics; no pottery of this type has ever been found at Teotihuacan, but it does occur at Tula.

From the literary side, Jimenez Moreno (1941a) points out that the Anales de Cuauhtitlan and Sahagun give a series of places in Tula or near it which identify the Hidalgo Tula, and he speaks of an 18th-century map on which some of these sites are mentioned. "Sahagun called Tula where Quetzalcoatl lived 'Tollan Xicocotitlan' or 'Tula near Xococ.'" The author continues with other evidence along the same lines.

Both archæological and literary evidence seems to have established the fact that Tula, Hidalgo, was a great and important center.[18] The beginning of this period was, to a great extent, contemporaneous with Teotihuacan IV and was many years after the Classic phase at Teotihuacan, which began long before 500.

Tula and its Archæological History

Before taking up the question of the Toltec and their background, it seems best to establish them archæologically in the picture, although this section is primarily on the literary and legendary history of these people, especially in their relation to Chichen.

In addition to the actual data found at Tula, our later comparisons will be derived from a far wider geographical area.

One of the first modern references to Tula was made by Brantz Mayer (1846), who was Secretary to the American Legation in Mexico in 1841–42. He undoubtedly saw the Ternaux-Compans edition of Ixtlilxochitl, which came out in 1840, as he refers in the following quotation to the wanderings of the Mexicans southward. The Tula vase which he mentions and illustrates he saw in the Mexican Museum. This important specimen will be described in Chapter IV-1. Mayer writes:

> It will be recollected that Tula was the headquarters, at one period, of the tribes which afterwards penetrated into the Valley of Mexico, and some of which even continued still further to the southward. May they not have been the parent stock from which sprang the builders of the numerous cities which now lie in ruins in Yucatan? And may not this vase serve to show a connection between all the people who, at the time of the conquest, dwelt on the narrow land which connects the Northern and the Southern portions of our Continent?

In 1873, the Sociedad Mexicana de Geografía y Estadistica appointed a Commission to visit Tula and to report on the situation of the town, its economy and other features. In this group Antonio García Cubas was engineer and *cronista*. In the report of the Commission, published in the Bulletin of the Society (vol. 1, pt. 3, Mexico, 1873), García Cubas, after quoting Iberri from an 1844 account in *Museo Mexicano*, describes the church, discusses the economic situation, and gives a historical account, based on Ixtlilxochitl, of the Tula kings and their dispersal to Guatemala and Yucatan. Then he describes and illustrates a few of the antiquities, including a solar disk and sections of the large atlanteans and the serpent column, with some generally incorrect interpretations (Ruz, 1945a).

In 1880 Désiré Charnay, making his second visit to Mexico, visited Tula and briefly explored some mounds, one of which he called "a Toltec palace" and the other "a Toltec house." The results of the trip were published in 1885. This Frenchman seems to have been one of the first to see a resemblance between objects from Tula and remains at Chichen. Undoubtedly, he had read the account of the early migrations of the Toltec; probably based on this, he made a map of Toltec migrations, including various sites between Tula and Chichen Itza.

Peñafiel (1890) published excellent pictures of some of the earliest objects from Tula in the National Museum in Mexico. With the steadily increasing knowledge of Tula and of Chichen, the similarities between some of the features found in these two sites became widely recognized. The resemblances, many of which can be called identities, and some of those who have written about them will be given in Chapters III and IV.

"Fifty years were to pass after the explorations of Charnay," writes Ruz (1945a), "before the ruins were to awaken some new interest among the men of science and students of ancient things." In 1935 Mujica y Diez de Bonilla made a short reconnaissance for the National Museum and brought back four stelae. In 1938 a preliminary examination of the ruins was made by Jimenez Moreno, after which a Commission of the Instituto Nacional de Antropología e Historia, consisting of Caso, Marquina, Jimenez Moreno, Kirchhoff, and Mariscal, was appointed to visit Tula and make plans for future work. In 1940 the Dirección de Monumentos Prehispanicos entrusted the work to Jorge Acosta, who has had among his collaborators Moedano, Ruz Lhuillier, Ramon Gali, and Jorge Obregon. This most excellent work is very fortunately being continued. Temporada X began in 1954.

The Toltec

Early authorities. The history of the Toltec and of the enigmatic figure of Quetzalcoatl are derived from a large amount of source material in the native languages—Nahuatl, Quiche, Maya of Yucatan—and in the early Spanish chronicles and histories. In most cases, these can hardly be more than mentioned. Jimenez Moreno (1941), David H. Kelley, and Henry B. Nicholson have most kindly furnished me with a list (Table 4) of the sources relating to the history of the Toltec in the period prior to and including Quetzalcoatl. Both the latter have also made valuable suggestions on this history.

Geographical areas. Several places are covered by the legendary, historical, and archæological material: southern Hidalgo, the Valley of Mexico, Morelos, Puebla, and part of Veracruz; the Mixteca and Oaxaca; Tabasco, Chiapas, and southern Campeche; Guatemala, Salvador and southward; and northern Yucatan with special emphasis on Chichen. All these widely distributed data result in a curious *mélange* of mythology, history and pseudo-history, romanticism, and absurd ecclesiastical claims. This naturally leads to a jumble of theories, making it impossible to extricate and separate the historical from the mythological and properly to assign and reconcile dates to the various events. To add to the confusion, the Cakchiquel and some of the Mexican tribes have four Tulas corresponding to the four cardinal points. And Roys gives a reference to four Quetzalcoatls!

History of the Toltec problem. In the discussion of this question there are three stages, named by Caso (1941). The first is the "Ingenuous," wherein Quetzalcoatl was definitely identified with St. Thomas and the Trinity. This was first claimed for Kukulcan in the ancient days as mentioned by Francisco Hernandez, who had come to Yucatan in 1541 as chaplain to Montejo. To his chief, Francisco Bartolomé de las Casas, the second Bishop of Chiapas, he reported (Cogolludo, 4, VI; Torquemada, 15, XLIX; Las Casas, 1875–76, p. 5; Tozzer, 1941, pp. 67, 207) that

> he had found a chief principal lord who, when he was asked about his belief and the old religion which they had been accustomed to have in that kingdom, the chief told him that they knew and believed in God who lived in heaven and that this God was Father and Son and Holy Ghost and that the Father was called Izona . . . and the Son had a name, Bacab, who was born from a virgin called Chibirias, that she was in heaven with God, and that the mother of Chibirias was called Ischel and they called the Holy Ghost Echuah. About Bacab (who is the son) they say that Eopuco killed him and had him whipped and they placed a crown of thorns upon him and they placed him with his arms stretched upon a beam . . . and there he died, and he stayed three days dead and on the third day returned to life and went up to heaven and there he sits with his Father. . . . When asked how he had knowledge of these things, he answered that the lords taught their sons and thus this doctrine descended from hand to hand.

The second stage in the history of the Toltec is called the "Skeptical," where not only doubt but absolute incredulity was leveled at all the data available. The most outstanding writer of this school was Brinton, who stated (1890) that "The mythical Tula and all its rulers and inhabitants are the baseless dreams of poetic fancy which we principally owe to Tezcucan poets." Earlier (1887) he had queried, "Why should we try to make one enlightened ruler of Quetzalcoatl, a cultured nation of the Toltecs, when the proof is of the strongest that they are fictions of mythology?"

The third stage of the discussion is called the "Critical"; here is attempted an analysis of what is mythical and what is historical, using the literary, the archæological, and the ethnographical sources.

A final period in the investigation might well be called the "Baffling." In spite of the data outlined above, the results are still most unsatisfactory; it is not always possible to identify the Quetzalcoatl god–culture-hero with the Quetzalcoatl priest-king, and to determine and separate the mythical migrations from the wanderings of a person or persons.

Their original home. Even the location of the actual starting place of the Toltec in their dispersal is not yet universally accepted. The affiliation of Tula, Hidalgo, with the Toltec is, as we have seen, believed by most writers on the subject. The question of the original home of these people as being Tula, Hidalgo, is another matter.

There are some authors who consider that the Toltec cradle was in southern Mexico. It has been placed in sites all the way from the province of Coatzacoalco in southern Veracruz to sites in Tabasco and Chiapas and to Xicalango and Nonoualco in southwest Campeche. The place has been called Tulapan, Tollan, Tullan, and Tula. Was Tulapan, for example, the Toltec homeland in the south or a region included in the migrations southward from a beginning in the north?

From the literary side it must not be forgotten that answers to these questions are included in annals each of which is often made up of many different traditions. Chronologically there is no possibility of any agreement. To add to the confusion, some modern writers consider that, chronologically, there were probably several time counts running concurrently.

From the later discussion of the similarities—many of them identities—between Tula, Hidalgo, and Chichen, one point comes out clearly. Wherever may have been the point of original dispersal of the Toltec, the best evidence shows that the origin of the material culture known as Toltec was at the Tula on the Mexican plateau. The long list of similarities at this Tula and at Chichen (Table 22) could have come only from direct connection between the two sites. It certainly seems fairly clear that the identities could not have been the end products of a movement from a homeland in the south and, from this center, one trek northeast into Yucatan and another northwestward into the Mexican highlands. This subject is considered again in Chapter IV-1.

Quetzalcoatl and Tula

Just as the irreconcilable native records of the "discovery" and early period in the occupancy of Yucatan have been regarded as legendary history, so do the documents relating to Quetzalcoatl, his life and his wanderings (also incapable of rendering a definite answer), belong in the same category. (For this personage as a man, see Tozzer, 1941, p. 267; as a god, p. 307; rituals in his honor, p. 329.)

Into any attempt to write the history of Tula, the Toltec, and Chichen II, Quetzalcoatl-Kukulcan necessarily enters as an important figure, whose part is known only from legend and myth. To fit these "sources" into the archæological picture is still another problem.

Was he human or divine? Was he the center of a cult? He has been considered a king, a great administrator, a priest, and a scientist. He has been identified as the sun, the moon, the planet Venus, and a god of the winds. Was the name a title? Was there more than one ruler, priest, or god bearing the name or designation and, if so, did they appear at different times? The answer to the last question appears to be "Yes." The inextricably tangled history of his human and his mythical roles must, in many cases, be taken up together.

Among the many appellatives for this figure were Ehecatl, Ah Nacxit Xuchit, Topiltzin Tlamacazque, Ce Acatl, Tlauizcalpantecutli, and Quetzalcoatl Huemac. Among his Maya names was Kukulcan; some have identified him as Hunac Ceel Cauich. In Quiche he was known as Gucumatz and Tohil.

Attributes. The claims of his greatest advocate, Spinden (1928), are quoted here:

> Quetzalcoatl, perhaps the most remarkable figure in ancient American history, was emperor, artist, scientist, and humanist philosopher. He established orders of knighthood as well as the coronation ceremony used by the later Mexican kings. He developed the various industrial arts and built up a wide trade in cotton, cacao, and other products. As a patron of the peripatetic merchant, he appears under the name Nacxitl, which means Four-way foot. Apotheosis being an idea strongly fixed among the Toltecs, Quetzalcoatl was deified as Ehecatl, God of Winds, on account of his support of the Mayan god of rainstorms, and for his astronomical work he was further deified as God of the Planet Venus.

In spite of the "baffling" nature of the various sources, I outline the account of one of these, the Anales de Cuauhtitlan, taken from the 1865 and the 1945 (Velazquez) editions. Table 5 shows the dates of the main events in the life of Quetzalcoatl, according to the Anales de Cuauhtitlan, Ixtlilxochitl, recent revision. "Jimenez Moreno," writes Thompson (1941b, p. 104) "is convinced that the dates given in the Annals of Cuauhtitlan should be advanced one or possibly two cycles [of 52 years each]."

Early Tula.

1 Tecpatl [752]. In this year the Toltec chose a king: they chose Mixcoamazatzin [14] who began the Toltec dominion.

1 Calli [817]. In this year died the King of the Toltec who was the founder of the kingdom. Then they placed Huetzin on the throne of Tollan.

6 Acatl [835]. Totepeuh (assumed here to have been the third king).[15] father of Quetzalcoatl, died. Then they placed Ihuitimal on the throne.

Parentage and birth.

1 Acatl [843]. It is said that in this year was born Quetzalcoatl. He was called Topiltzin and priest Ce Acatl Quetzalcoatl. They say that his mother was called Chimanan (Chimalma) and they also say that his mother conceived by wearing a chalchihuitl.

As a youth.

2 Tochtli [870]. Quetzalcoatl came to Tollanzinco. There he remained four years and built his store or house of green boards. He came here from Cuextlan (Huasteca).

Made king. The date of this, according to the record, was 873. The account continues:

5 Calli [873]. In this year the Toltec brought Quetzalcoatl to Tollan to make him king.

2 Acatl [883]. Topiltzin Ce Acatl Quetzalcoatl built his edifice of fasting, a place for penitence and prayer. The building had four rooms, one of green wood, another of coral, another of shells and another of quetzal feathers.[16]

Move to Tlapallan-Nonoualco.

1 Acatl [895]. Quetzalcoatl stood up. He called all his assistants and wept with them, having gone to Tlillan Tlapallan, the place of burning.

Torquemada (6, XXIV) writes: "Quetzalcoatl was a great priest in the city of Tula. . . . He determined to go to that place which was called Tlapallan.[17] He then visited Quauhtitlan, a hill near Tlalnepantla, Cholula and Coatzacoalco." In another place (3, VII) he tells us that Quetzalcoatl "went to the lands of Onohualco which are near the sea and are those which today we call Yucatan, Tabasco and Campeche."

Song of Quetzalcoatl. There is a considerable library of Toltec songs which bear on the ancient days. One is given here, in part, as it has to do with the departure of Quetzalcoatl from Tula and his arrival in Tlapallan-Nonoualco. (Brinton, 1887a; Peñafiel, 1899; Lehmann, 1922. For other songs see Sahagun, 10, XXIX; Seler, 1904; Cornyn, 1928.)

> In Tollan, alas, stood the wood temple.
> The serpent pillars (the erect serpent) still stand (there).
> Nacxitl Topiltzin has departed, gone into the far country. . . .
> Alas, he is undone, there in Tlapallan (the east country).
> There in Cholula (were we), then we set forth for Poyauhtecatitlan, to cross the water at Acallan.
> I have come to Nonohualco (the foreign land). I, Ihuiqueholli . . . I am sad (for) my lord is gone. . . .
> In Tlapallan, alas, is the place where you are seen, where you are bidden to sleep. . . .
> Thou has already set forth, my lord, Ihuitimalli. . . .
> Thou has left Tollan Nonohualco desolate here. . . .
> Thou first painted the stone and the wood, there in Tollan, there where thou didst come to rule, Nacxitl Topiltzin.
> Never will thy name be forgotten, always will thy vassals bewail (mourn for thee) weep.

Death and apotheosis. The date of the end of Quetzalcoatl has been variously reported. From the Quauhtitlan account, his end seems to have occurred in the same year as his arrival in Tlapallan.

1 Acatl [895]. In this year, it is said and related that when he came to the bank of the sea, he stood up,mourned and adorned himself with riches. . . . And when everything was ended, with the knowledge of them all, he mounted the funeral pyre, and there it is said and related that he was consumed, and as soon as they raised his ashes the most precious birds appeared to be present at the sacrifices. . . .

And Quetzalcoatl having stretched himself on the funeral pile, a spirit rose from the ashes of his heart in the form of a star toward heaven and entered heaven. And the old men say that this star into which he was changed is that which appears in the morning and makes all houses happy. And it is said that when Quetzalcoatl died, he was called Tlauizcalpan. It is said that after he died he did not appear in heaven and that it was because he went to visit hell. And, after eight days, he came to appear as a great light and it is said that hereafter he remained deified. And there he died in the year 1 Acatl [895] after 53 [52] years and here ends the story of Quetzalcoatl. This makes his day of birth and of death come, characteristically, on the same day, 4×13 years apart.

Another record of his death, or of another of a similar name in the same manuscript (§35–39), follows:

2 Acatl [883]. In this year according to the Texcoco tradition Quetzalcoatl Topiltzin died, in Tullan Colhuacan, and in the same year Quetzalcoatl made a house for fasting in which he did penance and prayed. He arranged four houses. . . .

He discovered the drink *(pulque)* which causes an ecstasy of pleasure, a great riches of precious stones, . . . a savory drink of cacao and cotton, striped or in color. . . .

And it is said and related that when Quetzalcoatl lived, many times the demons sought to deceive him since he never ventured to sacrifice the men born in Tula, since he loved his vassals very much, he always sacrificed only snakes, birds and butterflies.

[The demons sought to mortify him and] he desired to escape and he did so. [11 years passed.]

1 Acatl. In this year died Quetzalcoatl. They say he went to Tlillan Tlapallan to die and that then a certain man Matlacxochitl ascended the throne of Tula.

In another record, from Ixtlilxochitl, he is recorded as living not one cycle of 52 years but two cycles, 104 years. "He left for Tlapallan, travelling over the deserts by night, until he arrived at that place, where he lived for almost thirty years, served and showered with gifts by the Tlapaltecas, and he died at the age of 104 years."

Rulers to fall of Tula. Before discussing Quetzalcoatl as a god, let us continue with the Anales de Cuauhtitlan for the rulers of Tollan after his departure and death. There were four rulers who preceded Huemac, the last king in the period of 99 years with the latter on the throne from 994 to 1064 when Tula was destroyed, the ruler living until 1070.

Quetzalcoatl As a God

Las Casas writes that Quetzalcoatl was, in the opinion of his people, the most revered, the best and the worthiest of all Mexican gods, the great god of the city of Cholula. Sahagun (3, III, IV, XII, XIV) describes him as a god.

> Quetzalcoatl was revered and considered a god and, in ancient times, they worshipped him in Tula. . . . His statue was always stretched out and covered with blankets. . . . He wore a very long beard. His vassals were all workmen in the mechanic arts and skillful in cutting the green stones, called *chalchiuites*, also in the art of smelting silver and making other objects. All these arts had their origin and beginning with Quetzalcoatl who had houses made with those precious green stones . . . and others made of silver, still others made of red and white shells, others all made of boards and again others of turquoises, and some are made of rich plumes. . . . He also owned all the wealth of the world in gold, silver . . . and other precious things; he also had a great abundance of cocoa-trees of different colors. . . .

The necromancers.

The time came when the good fortune of Quetzalcoatl and the Toltec came to an end, because there appeared against them three necromancers by the name of Huitzilopochtli, Titlacauan, [Tezcatlipoca], and Tlacauepan, who played many tricks in Tula. [The story goes on that Quetzalcoatl became sick.] I am very ill; my whole body aches; I cannot move my hands and feet. [Titlacaoan, after turning himself into an old man, offered him a drink saying,] Drink it, Sir, because if you do not drink it now, later you will want to do so. [Reluctantly, Quetzalcoatl drank it and found it] "very good and tasty." [It cured him and he drank some more and became intoxicated.] The medicine they said . . . was white wine of the country made of maguey and a kind of agave *(pulque)* . . . .

As the result of this inebriation, one account (AQ, §42) says he seduced his sister, Quetzalpetlatl. Grieving over this, he leaves the country and goes to Tlillan Tlapallan. He also visits the underworld. Returning to the Sahagun story, we read:

> A great many more tricks were thus played on the Toltec, because their good luck had left them, and Quetzalcoatl, feeling great sorrow for them, agreed to leave Tula and go to Tlapallan. . . . He arrived at a place called Quauhtitlan. . . .
>
> Continuing on his way, he reached another place . . . and ordered a stone bridge to be made across the river and over it he passed. . . .
>
> They tell how, at another place, he ordered a ball court to be erected of square stones, where they used to play; the game was called *tlachtl*. . . .
>
> There are other notable things he did in many towns and he gave names to all the mountain ranges, forests and sites. When he reached the sea-shore he ordained a raft to be made of snakes . . . he entered it and sat down as in a canoe, and thus he left, navigating on the sea. No one knows how and in what manner he arrived at Tlapallan.

Quetzalcoatl and Tezcatlipoca (Titlacaoan). We have just read that Tezcatlipoca was one of the necromancers who played tricks on the culture-hero. There are other myths which would seem to record the struggle between the gods of the older religion, represented by Quetzalcoatl and Tlaloc, the rain god of the previous faith, and those of the new cult centering about Huitzilopochtli, the god of war of Tenochtitlan, and Tezcatlipoca, the chief god of Texcoco who was associated with the night.

Quetzalcoatl's relationship to the "suns." In the cosmogenic myths there are cycles or "suns" through which the earth has passed after the various creations, all except the last, followed by the destruction of the world. In the several accounts the order of the different periods varies, and there is confusion regarding the position played by Quetzalcoatl. As Ehecatl, the wind god, he is naturally associated with the period governed by 4 Ehecatl, which ends with a tempest. In the Anales de Cuauhtitlan (§11–16) Quetzalcoatl plays the role of Creator. He began to order the things "as they were in the day 7 Ehecatl." Then follows the record of the five "suns": 4 Atl (sun of water, Atonatiuh); 4 Ocelotl (jaguar) when the giants lived; 4 Quauhtli (rain), "a rain of stones and sand, the lava boiled within"; 4 Ehecatl (wind); and 4 Olin (movement), the fifth sun, the present world. These "suns" are shown on the famous Aztec calendar stone. Another list gives the order as Ocelotl, Ehecatl, Quauhtli, Atl, and Olin (earthquake). Ixtlilxochitl gives the order Atl, Earth, Ehecatl, and fire. The last period before the present one, the Wind Sun, is associated with Quetzalcoatl and is usually believed to have ended with the fall of Tula.

Quetzalcoatl's guise in the codices. His most common articles of attire, as shown in the manuscripts, are a pointed hat (a Huastec feature) and a shell as a breast ornament, which is also depicted on his shield. He often carries a curved *atlatl*. As a wind god, the protruding mask, usually painted red, is always recognized. He is often wearing a beard. (See Chapter III-7c; Sahagun, 1, I.)

Associations in the Aztec and other codices. Among those

connected with Ehecatl and Quetzalcoatl are the following. In the *tonalpohualli* the god's incarnation as Ehecatl, the wind god, is one of the 20 day signs; also the "ruler" of the second day, that of the second "week" beginning with Ce Ocelotl (Vaticanus B, 50) and the ninth of the 13 gods of the day. Ehecatl, as the god of life, appears with Mictlantecutli, the god of death, in a double-headed figure (Vaticanus B, 76, 77). As the fourth of the first series, according to Seler, of the "guardians of the Venus period" is Ehecatl; the second in the same group is Quetzalcoatl of Tollan (Vaticanus B, 33, 34). This god rules with Tepeyollotl as the second "ruler" of the third week in the Aubin Tonalamatl. He was also the ruler of Ce Acatl where a feast in his honor took place. It was considered an unlucky time (Sahagun, 4, XXXI).

Priest in role of Quetzalcoatl. The two high priests who were in charge of the worship of Huitzilopochtli and Tlaloc, the gods especially honored in Tenochtitlan, were named Teotez-tlamacazqui and Tlaloc-tlamacazqui. They were equal in standing but the more perfect in the performance of his duties was elected highest pontiff and was called Quetzalcoatl.

Festival in fifteenth month. In the month Panquetzaliztli of the Aztec year (Sahagun, 3, I, 2) there was a festival in honor of the god of war:

> They took wild amaranth-seeds and cleaned them . . . then they ground them. . . . When the flour was very light, they mixed a dough and with this formed the body of Huitzilopochtli. On the following day a man, called Quetzalcoatl, shot a dart with a stone point at the body of the said god. . . . After the body was killed . . . they broke it into pieces, since it had been made of dough. . . . The heart was taken for the chief or king . . . and some pieces that were like the lips (of the god), they divided . . . among the natives of Mexico and Tlaltelulco.

Various features of the work of Quetzalcoatl, temples and festivals in his honor, apotheosis and prophecies of his return will be discussed when considering Chichen IV, Kukulcan, and Mayapan (Chapter II-7).

Toltec Wanderings: Divarication at Tlapallan

After considering Quetzalcoatl as a god, we now take up again the record of the wanderings of the Toltec.

Time of dispersal. The flight southward to Tlapallan, according to the interpretation used here, occurred in the amended date of 1 Acatl (999). There is a school of thought which associates the general southern trek with the "destruction" of Tula in 1168. This separation of Toltec forces resulted in one group going south and east through Chiapas to Guatemala and on to Honduras, Salvador, and farther south; the other traveled northeast into the peninsula of Yucatan, especially to Chichen Itza.

Southern branch. This branch of the people who, according to tradition, migrated from Tula seems to have scattered over a wide range of country.

Quiche. The Popul Vuh mentions, among many others, the three branches of the Quiche, the 13 tribes of Tecpan (Tecpan Tlaca), those of Rabinal, and the Cakchiquel (Recinos, 1947; Goetz and Morley, 1950). Wandering Toltec warrior bands, after they had arrived in Guatemala, according to this source, went to the east to receive from Nacxit (Quetzalcoatl) "the royal investiture, honors and dignity of which all the native documents speak." One of the gods was called Gucumatz, the Quiche version of Kukulcan and Quetzalcoatl, all meaning "feathered serpent." The divinity took the bodily form of Tohil, who is specifically identified with Quetzalcoatl (Goetz and Morley, after Recinos).

Cakchiquel. Of this tribe, whose capital was in Iximche, we read: "We were the last, as we arrived from Tulan . . . we came from the other side of the sea, it was in Tulan where we were engendered and given birth by our mothers and our fathers" (Brinton, 1885; Recinos, 1950; Recinos and Goetz, 1953).

Chontal Kukulcan. It is interesting to speculate as to the origin of the Itza. It has been suggested, as one possibility, that they were Chontal-speaking Maya. It may be worth while, in this connection, to point out that Kukulcan was worshipped among the Chontal of Tabasco as Cukulchan. In the Chontal text we read, "He [Father Fray Diego de Bejar] wanted everyone to come and display his idols. Having heard what the father told them, they began to bring out their idols, first the idol of the ruler which bears the name of Cukulchan. They brought all these before Father Fray Diego de Bejar, who burned them." Other idols named here were Ykchaua, Tabay, Ixchel, and Cabtanilcabtan, whom Scholes and Roys (1948, pp. 57, 395) think were the patrons of the four quarters of the city.

Toltec History and Chichen

There are two problems here. The first is to determine the beginning of the original Mexican occupation of this site, generally considered to have lasted from about 948 to the beginning of the first millennium.[18] The second problem, surrounded with practically unsurmountable difficulties, is to fit into history the figure of Quetzalcoatl-Kukulcan.

Was there a Quetzalcoatl-Kukulcan (I) about 1000? Roys believes that between Tula and Yucatan there is in the historical legends definite mention of several Quetzalcoatl-Kukulcans. This seems most probable if the name, either in Aztec or Maya, is considered as having been used as a title.

From the Yucatan side, the archæological picture at Chichen just before or near the beginning of the second millennium, as we have noted, presents the strongest kind of archæological and ethnological evidence of a very complete change in many respects with the advent of the Toltec, presumably from Tula.

The "dates" from the Mexican end, in Table 5, show the departure of Quetzalcoatl southward in 895, 947, or 999. According to one set of authorities, these dates in each case were the same as those of his death, although Ixtlilxochitl states he lived for 30 years after his departure from Tula.

Eliminating the date of his death and using 999 for his trek southward, we have an interval of 50–75 years between the beginning of Katun 8 Ahau (10.6.0.0.0, 928–948) which was the period of the "abandonment" of Chichen by the Maya, and the "arrival" of Quetzalcoatl with the new influence at Chichen. If the traditional date of 1000 is used for the beginning of the Toltec regime, there would be a coincidence with departure of the culture-hero southward in 999.

The new architectural features at Chichen, especially the appearance of Toltec warriors here for the first time in large numbers, as recorded in bas-relief and in fresco, naturally need to be accounted for, and the Toltec hero is called in as the *deus ex machina.*

It must be confessed that the evidence of a historical personage named Quetzalcoatl appearing at this time is weak, especially so far as Yucatan sources are concerned. On the other hand, an actual *entrada* of foreigners before 1000, the cult of the Feathered Serpent (Quetzalcoatl-Kukulcan), and the archæological and ethnological evidence in Chichen II are difficult to deny.

From the records on the Yucatan side, it seems much more likely that a historical Kukulcan was associated with Chichen III, the Itza, and later, with Mayapan, all of which will be discussed.

Chichen II, the Great Center, in the Peninsula

The position of the city in connection with its neighbors, starting just before or about the beginning of the second millennium, is pre-eminent as proved by archæology, to be considered later, and by early records.

In this second epoch of Chichen history, no other contemporaneous site anywhere in the Maya area shows such activity or such amazing results from the infusion of new ideas which came from the Toltec and the territory later to be called Mexico.

Early accounts in the chronicles. In the Tizimin we read: "[Katun 8 Ahau.] It occurred that Chichen Itza was learned about." In the Chumayel Chronicle I: Katun 6 Ahau, "was when the discovery of Chichen Itza occurred." In Chronicle II in a Katun 4 Ahau "was the katun when they sought and discovered Chichen Itza. . . . Four divisions there were, when the four divisions of the nation, as they were called, went forth."

It will be noted that these katuns follow one another. The difficulty comes in their position in the chronological picture. Possibly the first, 8 Ahau, might mark the time (928–948) when the Toltec, according to reconstruction used here, appeared at Chichen, at the beginning of Chichen II, the Toltec-Maya, Stage A.[19]

Early accounts in the relaciones. The political pre-eminence of the city is evident in many sources. In the *relación* of Tikal (RY, 1:176) we read: "At one time all this land was under one lord, in the time when the lords of Chichen Itza reigned; and their lordship endured more than two hundred years." Additional information is given in the *relación* of Tecanto and Tepacam (p. 120), that when the city was in its prime, to the lord "were tributary all the lords of this province; and even from outside the province, from Mexico, Guatemala, Chiapas and other provinces they sent him presents in token of peace and friendship."

The extent of territory governed by Chichen Itza during its period of greatest importance is difficult to determine. Roys (1949b, p. 4) writes, ". . . the previous hegemony of Chichen Itza, before Mayapan became a ruling city, probably covered pretty well the entire peninsula. We find the family, or lineage, patronymic Itza spread all over the peninsula. It would seem as though it must be connected with the Itza nation, but I can find no direct evidence of such a connection."

In the *relación* of Chunhuhub and Tabi (RY, 1:142) there is a reference to ancient T'ho or Merida: "When the above buildings were erected, the whole land was peaceful and the lords of Chichen, an old town, which was in this province, governed it."

There is an interesting statement in Sanchez de Aguilar (1639 [1892 ed., pp. 94–95]) on the Mexican origin of the people.

> And if we marvel at the customs they had before they were Christians, we find that in their paganism they were as politically minded and given to justice as the Mexicans whose vassals they had been for six hundred years before the arrival of the Spaniards. The only tradition and memory they have of this among them is through the famous, great and magnificent buildings of mortar, rough and dressed masonry and figures and statues of worked stone which they left at Oxumal [Uxmal] and at Chichiniza which one sees today and which can [still] be lived in. Where the Mexicans had their forts and settlements in the fields which they called savannahs, today is a forest thick with high trees which, with the passage of so much time, have grown out of the terraces of these vaulted structures the roots of which continue severing and ruining as in Spain the buildings of marble of the Romans, and on the walls of these the Mexicans left many figures painted in vivid colors which one may see today, of their sacrifices and dances, from which one judges that they are the work of Mexicans and not of the Carthaginians as some of the people thought.

The Three Brothers

Before considering the "abandonment" of Chichen, presumably by the Toltec at the end of their regime about 1150, let us look at the episode of the three or four lords, rulers, or brothers. This event assumes importance for its appearance in so many different accounts, especially those of Landa and Herrera (4, 10, 11), the Chumayel prophecy (Roys, 1954), and in the Valladolid trial of 1618. (Tozzer, 1941, p. 215, and Brinton, 1882, p. 118, reprint the Herrera account; see also Roys, 1949, p. 28.)[20] There seems little question but what these lords lived at Chichen toward the end of its main Toltec period (ca. 1200).

Landa's account. The most extended notice of the lords is in Landa (1941, pp. 19, 177),

> Chichen Itza is a very fine site, . . . It is said that it was ruled by three lords who were brothers who came into that country from the west, who were very devout and so they built very beautiful temples and their wives lived very chastely, and one of them died or went away, upon which the other two acted unjustly and indecently and for this they were put to death.
>
> Chichen Itza, then, is . . . ten leagues from Izamal, and eleven from Valladolid, in which, as the old men of the Indians say, three lords who were brothers ruled, who as they remember to have heard from their ancestors came to that country from the west, and brought together in those localities a great population of towns and peoples; whom they governed in great peace and justice for some years. They were devoted worshippers of their god; and so they erected many and magnificent buildings, and especially one, which was the largest, of which I will here give a sketch, as I drew it when I was there, so that it can be better understood.[21]
>
> These lords lived, they say, without women and in perfect decorum and for all the time that they lived thus, they were held in great esteem and were obeyed by all. Afterwards, as time went on, one of them disappeared, who must have died although, the Indians say, he left the country in the direction of Bakhalal. His absence, however it may have occurred, was such a loss to those who ruled after him, that they at once began to be(come) partisan in the government and so dissolute and unbridled in their habits, that the people came to abhor them so greatly that they put them to death. They laid waste and abandoned the land, leaving their buildings.[22]

Chumayel prophecies. In the First Series of these (Roys, 1954), under the entry of Katun 6 Ahau (1204–1224), is a statement "of three unjust and immoral rulers who are beheaded in retribution for their guilt, when they are set against the dry

stone wall of a patio." Roys compares this prophecy with the Landa account and finds five points where the two agree and only one of disagreement.

In both accounts the lords are characterized as unjust rulers and immoral people who were killed by their subjects. The murder was followed by chaotic political conditions and the depopulation of the city. In the following Katun 4 Ahau the city was occupied by the Itza and Kukulcan. "Landa informs us that all this happened at Chichen Itza, but the prophecy does not state this. Uucil-Abnal is cited as the place where the katun is established and this is almost certainly another name for Chichen Itza." In the Landa account all three were good until one was removed by death or departure. The remaining two then turned to evil ways and were put to death. In the prophecy all were wicked.

If [writes Roys (1954), who considers the two accounts as variants of the same story] we equate the events recorded in the prophecy for 6 Ahau with Landa's story, it would place them in the katun of that date which ended in 1224, since Landa puts them later than the establishment of Chichen Itza as an important capital and prior to the founding of Mayapan. Such a date would make the deaths of the lords subsequent to the Chakanputun episode and the arrival of the Itza in northern Yucatan but earlier than their occupation of Chichen Itza in Katun 4 Ahau.

Such conflicting evidence might, perhaps, be reconciled by a possibility that only a faction went to Chakanputun and that the two or three lords represented an element which had remained at Chichen Itza

This date of Katun 6 Ahau follows the Katun 8 Ahau of the Chumayel Chronicle I, and is three katuns after 1 Ahau of the Mani and Tizimin, already recorded as the time of the "end" of Chichen. Thus this Katun 6 Ahau places the episode of the Three Brothers in the history of Chichen III.

"Abandonment" of Chichen: 1125–1145

Passing to the end of these 200 years of the hegemony of Chichen under the Toltec, we again take up the history of the site as given, confusingly, in the early chronicles (Table 1).

Probable date. In the Mani we read: "[Katun I Ahau: Then they abandoned Chichen Itza and went to live at Chanputun (Champoton); there those of Itza, holy men,[23] had their houses." In the Tizimin: "The first Ahau: ten score years they ruled Chichen Itza, then it was destroyed and they went to live at Chakanputun, where were the houses of those of Itza." It is important to note that in both of these records the Itza were at this time living in the south. In the Chumayel I (p. 136) it was "8 Ahau when Chichen Itza was abandoned. There were thirteen folds of katuns when they established their houses at Chakanputun."

Leaning on the two accounts of the Mani and Tizimin, I propose to consider 1 Ahau (10.16.0.0.0, 1145) as the time of the first "abandonment" of Chichen by the Toltec after the 200 years of their hegemony, which began in 948. The Tizimin states that "they" set out for the southern home at Chakanputun where the Itza already had their homes. This would seem to show that the first Mexicans to occupy Chichen were not Itzas. This is the time favored by Roys as the "end" of Chichen II instead of three katuns later in 8 Ahau (1185–1204). This earlier date breaks the pattern of 8 Ahau, reappearing again and again.

Thus according to one interpretation of the chronicles, Chichen was occupied by a group we have called Toltec for 200 years from about 950 to 1150. This period would correspond to the Chichen II or Chichen A, the first Mexican period at this site.

4. CHICHEN II ARCHÆOLOGY

Chichen II

Turning now to the strictly archæological side of the picture, we shall consider Chichen II. This will be followed by the history and archæology of Chichen III, together with the justification for subdividing Mexican Chichen into three eras. The first will be called Chichen II or A; the second, Chichen III, subdivided into B′ and B″; followed by Chichen IV and V. The first period is assumed to have begun about the time when the Maya left Chichen for the south, later seizing Chakanputun, and the Toltec entered the country, 10.6.0.0.0 (948). It ended after a rule of 200 years when the city was "abandoned," about 10.16.0.0.0 (1145). Chichen III began soon after this and extended to about the date when Mayapan was founded, 11.3.0.0.0 (1283). Chichen IV followed and was, in general, contemporaneous with Mayapan, ending in the "destruction" both of this city and of Mayapan about 11.12.0.0.0 (1460). Chichen V covers the period when the Itza went southward and the Spaniards arrived.

The main section on archæology (Chapter III) is a comparative study, considering Chichen and its contributions from Tula and similarities with other parts of Middle America and Mexico. It must be confessed that there seems to be no exact way to determine an early and a late period at Tula corresponding to the two eras postulated for Chichen. We shall find, however, that many features which seem to have their beginnings in post-Classic or post-Teotihuacan times at Tula continue into Aztec history.

Maya and Toltec

Up to the beginning of this epoch, the very few depictions of individuals all represent Maya. There now comes a tremendous increase in the amount of bas-relief and fresco painting and, along with this, Maya and Toltec personages are represented. This new ethnological element is full of possibilities in unraveling the record of events in the two main Mexican epochs. In the final sections on the ethnology of Chichen (Chapter IV) these two groups will be considered separately.

Function and Change at Chichen

In the short survey of Maya archæology, the seemingly religious character of most of the extant buildings was brought out. There seems to be no question but what these centers differed in general plan, in application of decoration and its character from early to late times. New ideas, new beliefs, and rituals introduced by the Toltec at Chichen undoubtedly affected architectural planning and decoration. The importance of the worship of the Feathered Serpent, for example, is certainly reflected in the great increase in the representations of this mythological reptile.

Maya Contributions to Toltec Chichen (II and III)

The term here used to denote Mexican Chichen, Toltec-Maya, was chosen because of the fundamental Maya background of the architecture.

The general building methods, such as the corbeled vault, date from the Early Classic. Although the basic construction here is stone and mortar, with stone laid squarely on stone, the veneer type of wall is also found as early as the second period at Uaxactun. There are many different types of this construction in the Puuc of Late Classic times and it is also associated with the Mexican periods (L. Roys, 1941).

The vault, designated by Ruppert (1952) "the veneer type" (also called by the shape of the stones, the *boveda* or boot-shaped variety), is usually associated with Chichen II and III; but it is also found—to a lesser extent—in previous periods.

It is the Yucatan-Maya or the Puuc and, especially, Uxmal which furnishes most of the examples of construction and decoration of the earlier period which continued to be used in the buildings dating from Mexican times.

Specimens of geometric and representative design on façades are named in Table 12, where it is made clear, as might be expected, that Chichen I and Uxmal and the Puuc have very many features in common; but several of these infiltrate to the Castillo *sub*, the Castillo, and the Temple of the Jaguars of Chichen II, and a smaller number into Chichen III.

Sequence of Construction

Buried temples. There are at Chichen, as in most other sites in the Maya and Mexican areas, instances where one building is completely covered by a later structure.

Castillo sub. The pyramidal temples of the two Castillos, so far as information is now available, are the earliest example in Toltec Chichen. There seems to have been no very great interval between the two.

A number of writers have stated that the interior structure shows a "transition" from Maya to Toltec, a theory based on several features. (1) The plan seems to follow the Maya pattern: a building of two rooms, directly behind the other. But there are at least three other buildings at Chichen with a similar plan (Strs. 7B5, 5B1, 1D2) and all seem to be Toltec. (2) The Castillo lacks a Toltec characteristic, the basal batter. Str. 5B1 does have this feature. (3) The plan shows the inner room raised a step above the outer one, a distinctly Maya characteristic. (4) There are no other pyramidal temples in Maya Chichen, but this may be an exception here. There are, of course, such structures at Uxmal and other Maya sites in the south. (5) The decorated balustrade of the temple shows a type somewhat similar to that of the Adivino at Uxmal. (6) Finally, we come to the contents of the two rooms and the foundation offering. In the outer apartment was a chac mool; at the back wall of the inner room was a red-painted jaguar encrusted with jade, supporting a mosaic plaque of turquoise and shell. Two other plaques with similar design, two flint knives, jade beads, and amulets were found in a covered stone box under the stairway of the Castillo proper (Marquina, 1951, pp. 849–55).

The jaguar is more elaborate than any other found but is not greatly different from the one still standing in the Lower Temple of the Jaguars; the chac mool is one of 13 encountered, up to date, in Toltec buildings here.

Temple of the Chac Mool. This second example of an enclosed structure was encased by the Temple of the Warriors and its Colonnade. Both structures will be placed in two subdivisions, B′ and B″, of Chichen III. The plans of the two temples, each with its own colonnade, are essentially similar. The paneled effect of the Chac Mool repeats exactly that of the earlier Castillo pyramid.

As in the Castillo *sub*, a chac mool was found in the outer room. In the shrine in that part of the floor from which an altar had been torn was a jar containing a few jade beads, a jade ornament, vestiges of textiles, and bird bones, and, at the bottom, a mosaic plaque of the same design (a solar figure) as those on the three disks from the Castillo (Morris, 1931, pp. 186–99).

All these mosaic plaques are generally regarded as of Mexican origin. Those in the Castillo *sub* may, of course, have been deposited at the end of the occupation of the under pyramid, when it was covered in order to build the present Castillo.

Here, again, there is no justification for thinking that any great length of time elapsed between the erection of the two structures. The plans of the temples, each with its own colonnade, are essentially similar.

High Priest's Grave. There was undoubtedly an earlier structure here, although practically nothing is known about it (E. H. Thompson, 1938, p. 12).

In Str. 3B2 the top of a vault was discovered under the floor of the center room.

House of the Phalli. Another type of investigation was made by Vaillant (1926), who attempted to work out the possible order of buildings of a complicated series of constructions centering around the House of the Phalli. His main divisions, with a few changes and a tentative assignment to my periods of Chichen history, are given in Table 6.

In general, Vaillant's sequence seems to conform with what we understand today regarding the history of the site. Much of the evidence on which he based his study has disappeared, so I offer some tentative suggestions resulting from a more extensive study of the buildings at Chichen as a whole. Necessarily, there will be some repetition of what has gone before.

There seems little doubt but what the main structure of the House of the Phalli (Vaillant's 1) and possibly his 2 belong to the same type of building commonly found in the south in Classic times, similar in plan to that of the first portion (the East Wing) of the Monjas.

A substructure and the first postulated temple on the same mound as that of the Temple of the Initial Series may have been the original home of the Initial Series lintel.

The reasons for the assignment of the various parts of the complex to the periods of Chichen follow. (1) Chichen I, the Yucatan-Maya era, seems to be indicated in some of the features of the House of the Shells (Str. 5C5), such as the engaged columns and the serpent masks. Vaillant's "sub-temple" may have carried the Initial Series lintel. (2) Chichen II. The Temple of the Owls (Str. 5C7), on account of its plan, roof ornaments, and very typical jambs, belongs here together with the structure on top of the Phalli and the "early temple" (Str. 5C4a) built on the ruins of the Maya building whose doorway once had the dated lintel. Other construction is also placed here. (3) Chichen III. The Temple of the Little Heads and the East Patio (Str. 5C3) probably come next. Re-used stones and many changes of plan are noted. The "stoa" type of temple (Str. 5C15) with atlantean columns and a similar one in the southwest corner with missing columns, together with the colonnade to the east of this, probably were built in this stage. The placing of the phalli in the walls of the structure of this name may have occurred at this time. The "looting" of the Temple of the

Little Heads may have come later than indicated by Vaillant. (4) Chichen IV. This is Vaillant's "Period of Degenerate Construction," the time of the erection of the shrine on top of the mound containing two or three earlier temples. The shrine, with entrances on three sides, is reported as "jerry-built"; outside, late *incensarios* were found. It was in its foundation mound that the Initial Series lintel was originally found in modern times. The atlantean figures do not belong in a building with a single doorway, so it is possible that these originally stood in the "stoa" with the missing columns in the southwest corner of the complex of Str. 5C5. (5) Final abandonment (Vaillant's 9) came in Chichen V.

Temple of the Wall Panels. Another perplexing problem is presented by this complex (Ruppert, 1931). The building was probably originally erected in Chichen II, but much of the reconstruction and the structure as we see it now seems to date from the following period. The stairway was moved from within the front colonnade to a position outside and, in order to support it, the two middle columns of the former colonnade entrance were enclosed by a wall. Sculptured stones were reused; a stone with two atlantean figures in bas-relief was inverted to serve as one of the drums, not all of the same diameter, of a column. Serpent heads, once before the bases of serpent columns of the upper structure, were re-used at the bottom of the balustrade of the second structure. The bas-relief is undoubtedly late.

Up to the present time the very few successive strata of refuse deposits encountered have been wholly inadequate. Even the data from ceramics are not satisfactory. In the southern areas, dates in the hieroglyphic writing form the main framework on which to attach history. This study, coupled with the approach through the development of art forms, so ably carried out by Proskouriakoff (1950), is of paramount importance, for here there are practically no dates. For finer details, the study of architecture, change of plan, and sequence in construction is possible only within narrow limits.

Chichen II Structures

Castillo. The first building assigned to this period is undoubtedly the Castillo *sub*, which seems to occupy a place transitional between Chichen I and II. It was followed, at no great interval of time, by the famous Castillo, which completely covered the earlier structure.

Ball court group. This is the most important group (Str. 2D1) of structures at the site: the Upper and Lower Temples of the Jaguars, the court itself, its two carved benches and its North and South Temples. The back and side walls of the Jaguars furnish abundant bas-relief. It will be seen from the map (fig. 1) that these structures form the west and south sides of a great plaza.

The Temple of the Owls (Str. 5C7), an early structure on the site of the Initial Series shrine, and some other buildings in this group, studied by Vaillant, also seem to belong in Chichen II.

Cenote gold disks. Also in Chichen II belong, chronologically, the gold embossed disks recovered from the Sacred Cenote. Those of gilded copper belong in the following period.

The architectural and decorative details on the structures of this stage are considered in Chapter III.

Toltec Additions to Maya Structures

Dating from Chichen II were many extensions and changes in the plan and decoration of Maya buildings. This is seen especially at the Caracol where the original construction is in the midst of later Toltec building and where roof and other decorations were introduced on the main structure. The Northwest Temple and the West and South Annexes were Toltec additions.

At the Monjas, three sides of a Toltec court were added at the southern side of the primary construction and southeast of the high platform. This consisted of a portico of five round columns on the south, another of four on the east, and a room on the west with a triple entrance. In the main room of the southern range on the second story of the same building, there are the remains of a fresco almost certainly depicting a Toltec scene; it is probable that a similar room on the north was filled in. The third story, built of re-used stones, dates from Chichen II or III times. Another factor which seems to point to this period is the finding of a sculptured altar or "sacrificial stone" here.

The Iglesia, primarily a Maya construction, shows evidence of having been, in whole or in part, rebuilt in later times. Two lateral mouth ornaments of the central mask on the flying façade do not match. The two stones on the left "belong to a mask of the same type as several on the frieze of the foundation mound of the Monjas, and are undoubtedly a pair of old lateral mouth ornaments made over into one" (Spinden, 1913, p. 204).

This rebuilding may possibly explain the presence in each of the two niches in the façade of two figures. In one is a shell man; in the other, seemingly a figure associated with the turtle. The idea of a human figure associated with a shell is old and widely distributed, but the association of the shell and the turtle suggests at once two of the types of Maya Bacab figures in bas-relief seen as the secondary figures on columns in Chichen II and III.

The House of the Phalli (Str. 5C14) is undoubtedly a Maya building, with its 10 rooms and an additional one on the north side. Each of the six rooms with an east-west axis, excepting the southeast one, has at either end a stone phallus, unsymmetrically placed and certainly post-Maya, dating from Chichen II or III. The main structure has buildings surrounding it on the south dating from Toltec and later times.

At first I thought that Brainerd's "Early Mexican" might correspond to Chichen II; his Middle Mexican, primarily to the first part of our Chichen III; and his Late Mexican more or less contemporaneous with late Chichen III and Mayapan which were then regarded as overlapping.

Brainerd writes (February 18, 1954): "Your Chichen II and III buildings belong to my 'Early Mexican Substage.' This is not recorded as antedating any construction at Chichen." He continues, "I have no evidence that any building at Chichen Itza was built contemporaneously with the main Mayapan occupation." This stage at Mayapan "is represented at Chichen by surface debris, often post-dating the fall of buildings and as a major constituent in the Cenote material."

In 1954, in a short investigation at Chichen, R. E. Smith and E. M. Shook failed to find practically any "Mayapan red" below floors and conclude that there was no overlapping in the histories of Chichen and Mayapan.

This does not mean, in my opinion, (1) that Chichen was essentially a dead city except for the pilgrimages to the Sacred Cenote, or (2) that there was a chronological gap between the end of the main building activity at Chichen and the foundation of Mayapan. The two sites were closely related, the older city furnishing much of the pattern in the plan of the buildings and many of the architectural features in the later site.

Hieroglyphs in Toltec Structures

In the discussion of Chichen I, certain hieroglyphic inscriptions were noted. One alone had a definite Initial Series date. Fifteen others (Table 3) seem to be in the Katun-Ahau reckoning; all but two of these are read as coming in late Katun 1 or Katun 2 of Cycle 10, in a period of time less than 20 years.

One of the exceptions is in the High Priest's Grave, a Castillo type of structure, clearly dating from Chichen III. The possible date is read by Thompson as 10.8.10.11.0 (10.9.0.0.0, 1007). This is over 100 years later than all but one in Table 3. It is interesting to note that the building on which the inscription is found is placed in the Maya period (B″) of Chichen III, as will be explained later.

Among other buildings assigned to B″ is Str. 6E1, where all the figures seem to represent Maya. These are on some drums of columns, two bands of three columns each of hieroglyphs. Ahau, a double Imix, and other forms are recognized, but there seems to be no chronological significance in the two groups.

Other scattered hieroglyphs occur mainly on structures of Chichen III, but they cannot be placed more definitely in one of the subgroups as few representations of Maya or Toltec are shown.

The Temple of the Hieroglyphic Jambs (Str. 6E3) is of the patio type; it is possible that the door stones were re-used here or, more probably, that the wall of which they form a part was one dating from the Maya period. Another Toltec structure (Str. 7B1), which has a single lintel showing hieroglyphics (two lines of about eight glyphs each) also almost certainly dates from Toltec-Maya times, showing that this stone was probably not contemporaneous with the doorway over which it was found (Ruppert, 1952, fig. 149,*d*).

In Str. 5B18, the so-called Castillo of Old Chichen, is a band of two lines, each of four glyphs, on a jamb of a definitely Toltec structure. Possibly the numbers 2 and 7 occur, also an Ahau and a Muluc. The glyphs appear in connection with a very definite and unusual design of trees and flowers.

On 15 drums of columns found near Str. 3D7 one, No. 8, has a glyph with an unmistakable bar and three dots.

Some undecipherable glyphs, so far as any significance is concerned, are found on two painted capstones of vaults, one in the Temple of the Owls (Str. 5C7) and the other from a tomb (Morley, 1946, pp. 421–42). Both stones date from Chichen II. The first has bands of astronomical significance (Chapter III-7h) usually associated with the Classical period but found in the codices (the three Maya codices are full of most significant hieroglyphic writing and all of them, as we know them today, date from Mexican times). Such a band appears above the entrance to the east wing of the Monjas.

Numerals. Certain glyphs, several of which seem to be name signs, carry a number composed of bars and dots. These are found in several places; in some cases, as among the Mixtec, they are clearly glyphs with numerical significance. They are considered in Chapter III-6.

In regard to the relatively few glyphs on the gold disks, Proskouriakoff writes (in Lothrop, 1952) that it is doubtful if any of them have calendrical meaning. The glyph for Venus is one of the few to be recognized. On the largest of the copper plaques there is a 10 Lamat 11 Muluc. These correspond in general to the Ahau sign with numbers which appear on the Santa Rita frescoes. Both the disks and the paintings probably come late in Chichen III.

There is another very different type of single glyph found on many of the bas-reliefs at Chichen in connection with the personages shown. These are usually described as Mexican, but the signs which appear on the arms or legs of some figures on Classic monuments are clearly Maya. These all seem definitely to represent a name, a locality, or a situation. They are considered in detail in Chapter IV-1 and some are illustrated in figure 506.

Structural Changes in Chichen II Buildings

In many cases it is impossible to determine whether many of the alterations were made in this period or extended to the following epoch, Chichen III. They are too numerous to list. There seems, as in all the various periods of Maya history, to be an almost feverish restlessness to demolish and rebuild or to cover up a smaller by a larger construction. All this may well be a manifestation, explained in another place, of the desire for ceremonial renovation at the end of the 52-year cycles.

This discussion concludes the legendary, historical, archæological consideration of Chichen II, Toltec-Maya, Stage A, the first of the two main Mexican phases at this site, running from about 1000 to 1200 or, more exactly, from 950 to 1150.

CHICHEN III: TOLTEC-MAYA, STAGE B (CA. 1150–1260)

5. CHICHEN III LEGEND AND HISTORY

Chichen I, we have seen, is generally contemporaneous with the Late Classic in the south, a stage called here Yucatan-Maya or the Puuc.

Chichen II was the first of two great periods at this site. In the archæological study of this epoch (Chapter III) we shall see the wealth of new forms in architecture, bas-relief, sculpture in the round, and fresco painting, and, most important of all, personages who can definitely be identified as Maya or as Toltec.

Chichen III is the second of the two main Toltec-Maya phases. This runs roughly from the "abandonment" of Chichen by the first Mexican invaders, according to two of the Maya Chronicles, and extends to the founding of Mayapan in a katun beginning in 1263. The termination of this period is based on the seeming absence of Mayapan ceramics contemporaneous with the erection of any structures at Chichen. It is in Chichen III that the evidence seems to point to the arrival of the Itza and Kukulcan II.

Chichen IV follows. This is an unimportant archæological period wherein the Itza are beset with difficulties and the end is marked by the Hunac Ceel episode in 1451.

Chichen V is the last phase. Most of the Itza go south, the Spaniards arrive, and the conquest takes place.

Is There Proof of a Chichen III?

Verification of a second Mexican or Toltec period in the history of the site comes mainly from the archæological evidence

rather than from the early accounts. Furthermore, in the study of the ethnology (Chapter IV) a subdivision of Chichen III (B′ and B″) seems to be called for. This is based on the relative number of Maya and Toltec personages shown and the position occupied by each type in the various structures. In B′ the Maya seem to occupy positions of importance in a stage of "resurgence." In B″ the Mexicans had regained the supremacy which they held in Chichen II. The date separating B′ and B″ will be discussed later.

In the documentary history the first event of importance is the possible "destruction" of Tula in 1168 in a Katun 10 Ahau following that marking the beginning of Chichen III. Then in succeeding katuns (Table 1) come the departure of the Itza from Chakanputun, the episode of the Three Brothers or the Three Immoral Rulers, and the arrival at Chichen of the Itza and Kukulcan II. The second of these events will be considered next.

The Itza

Who were they? These people have most often been regarded as "foreigners" who occupied Chichen Itza during the Tula-Toltec period and were responsible for "New Chichen." [24] The thesis, here, is that we know nothing of their origin other than that they were foreigners from Chakanputun when we first hear of them and they "spoke the language brokenly."

Roys was among the first to make the suggestion that they were from Mexico, were introduced into the country, and, especially, were those who settled at Chichen Itza. It is possible that the Itza were not from Mexico at all but a people living in the southwestern part of the peninsula of Yucatan who spoke Chontal, a dialect of Maya. The "broken Maya" may refer to this variation in Maya dialects rather than to a distinctly different language such as the Mexican Nahuatl. The reference to a Chontal Kukulcan has been given.

Oviedo (17, XIII) tells us of a native interpreter who had learned some Spanish with Cordoba (1517) and, a year later, was taken on by Grijalva at Cozumel. He knew the language as spoken in northeastern Yucatan but could not understand the natives who came out in their canoes to meet Grijalva at the Laguna de Terminos in the southwest corner of the peninsula (Tozzer, 1941, pp. 17, 20).

Their southern home, Chakanputun. Several accounts speak of the Itza being at Chakanputun for about 260 years. In the Chumayel Prophecy, Series I, we read that in Katun 8 Ahau (1185–1204) they were attacked. The heads of some "foreigners to the land" are fastened into a wall (Roys, 1954). In the Prophecy, Series II: "The shield shall descend, . . . (upon Chakanputun) together with the rulers of the land. The heads of the foreigners to the land were cemented (into the wall) at Chakanputun" (Roys, 1933, p. 160). This and the same story above may refer to the "foreign" Itza and to some untoward event happening on their abandoning Chakanputun.

In the Chumayel Prophecy, Series II, we learn that the Itza make trouble for the rulers in the north and their vengeance is mentioned. Curiously enough, this is given in Katun 8 Ahau some time before they actually seem to have arrived at Chichen. (Another item here seems out of place. The Itza captains, Kak-u-pacal and Bilu, conquer Motul and Izamal. This seems, more properly, to belong in the next 8 Ahau, 1185–1204.)

They leave, 8 Ahau (1185–1204). According to the Chumayel I (p. 136), in a Katun "8 Ahau, . . . Chakanputun was abandoned by the Itza men. Then they came to seek homes again. For thirteen folds of the katuns had they dwelt in their houses at Chakanputun. This was always the katun when the Itza went beneath the trees, beneath the bushes, beneath the vines, to their misfortune."

In the Mani manuscript we read, "The eighth Ahau Chakanputun was abandoned; thirteen score years Chakanputun was ruled by the Itza men when they came in search of their home a second time; in this katun those of Itza were under the trees, under the boughs, under the branches to their sorrow: the years that passed were 260." [25]

Arrival in Chichen, 4 Ahau (1224–44). Thus we have the Itza leaving Chakanputun in an 8 Ahau running from 1185 to 1204. Two katuns (from 20 to 40 years) later (1224–44) there are two accounts of these people arriving at Chichen. The first is in a Chumayel Prophecy in connection with Kukulcan II and will be discussed presently. The second is in the Chumayel Chronicle II where we read: "4 Ahau was the katun when the four divisions [26] were called together. The four divisions of the nation, they were called, when they descended. They became lords when they descended upon Chichen Itza. The Itza were they then called."

It is significant that this is the first direct connection in the Chronicles between the Itza and Chichen. That they were "*then* called" would seem to show that they had not been at Chichen before.

According to the Chumayel Prophecy, Series I, we learn that the people obey their rulers unwillingly and only when compelled to. This may well refer to the earlier time, as it is in Katun 4 Ahau that "new people settle in the land and Kukulcan and the Itza establish themselves (at Chichen Itza)." A Venus cult is established. Tribute is guarded or hidden at Chichen. "Kukulcan is deified because of his statesmanship and the order which he imposed on Yucatan, after the deaths of the lords in order to calm the dissensions which their deaths had caused in the country."

Do they assume leadership? In Chapter IV-2 the details are given for the suggested changes of leadership indicated in the archæological picture. These are based upon the relative number and position occupied in the various structures of Maya and Toltec. As has already been noted, at the beginning of Chichen III (B′) there seems little doubt but what there was a short period of Maya hegemony corresponding chronologically to the Temple of the Chac Mool and others. Then the galaxy of the Temple of the Warriors and other structures show the Mexicans in places of prominence in the temples and the Maya as prisoners and victims of sacrifice. Were those now in authority the Mexican Itza who came in Katun 4 Ahau (1224–44)?

Could the change in leadership be the result of the unsettled conditions in connection with the rule of "the three dissolute rulers"? With the end of Chichen III placed in Katun 13 Ahau (1263–83), this would allow from about 20 to 60 years for this period, far too short a time for the erection of the Temple of the Warriors and other structures assigned to Stage B″. It must be remembered, however, that all the Ahau-Katun dates associated with buildings in Chichen I also fall within a very short time.

Katuns "8 Ahau" pattern. Before going further with this historical reconstruction let us discuss the curious coincidence of many important events recorded as coming on this katun date of 8 Ahau (Table 1).

It will be noted that Chichen was "learned about," according to one account (672–692?); its abandonment (928–948?); the Chumayel account of the "abandonment" of Chichen by the Toltec and the end of the Itza sojourn in Chakanputun (1185–1204) all occurred in succeeding Katuns 8 Ahau. Later we shall see that Chichen is said to have fallen and Mayapan was destroyed in another 8 Ahau (1441–60).

The next 8 Ahau ran from 1697 to 1717. This katun, curiously enough, began the year after the final conquest of the Itza by the Spaniards at Tayasal in 1696. As already explained, a katun with the same Ahau number repeats itself about every 256 years.

It is obvious that this recurrence of the same katun always as the date of most of the important events in the history of Chichen, according to the Chronicles, vitiates to a great extent their validity as history. The katun pattern of Maya history is not unlike in principle the 52-year pattern in some Mexican records where, for example, each Toltec king was thought to have ruled exactly 52 (4×13) years.[27]

Succeeding katuns: "4 Ahau" pattern.[28] There is another chronological artifice throughout several of the Chronicles and Prophecies. Following 8 Ahau comes, in turn, 6 Ahau and 4 Ahau. It is the latter in which events, starting in 8 Ahau, seem to be concluded within a period of about 20 to 60 years:

8 Ahau (672–692) Chichen Itza "learned about."	(Tizimin)
4 Ahau (711–731) Bakhalal occupied.	(Mani)
8 Ahau (928–948) Chichen I "abandoned" by Maya.	(Chumayel I)
Toltec arrive.	(Chumayel I)
4 Ahau (968–987) Chakanputun seized by Maya.	(Chumayel I)
8 Ahau (1185–1204) Itza attacked, left Chakanputun.	(Chumayel I, Mani)
Toltec "abandoned" Chichen.[29]	(Chumayel I)
4 Ahau (1224–44) Itza arrive at Chichen.	(Mani, Chumayel I)
Toltec seize Chakanputun.	(Chumayel I)
8 Ahau (1441–60) Chichen and Mayapan destroyed.	(Chumayel I)
4 Ahau (1480–1500) Itza seize Mayapan.	(Chumayel I)

Quetzalcoatl-Kukulcan II

Any association between the Three Brothers and the Itza is absent from the records. This is far otherwise concerning the three lords and Quetzalcoatl, on the one hand, and Quetzalcoatl and the Itza, on the other.

This historical-mythological figure Quetzalcoatl-Kukulcan, his names, attributes, and position in the history of the Toltec, have already been taken up. And as the Toltec were responsible for the strong Mexican accent at Chichen in its second period (ca. 950–1150), its new ideas in architecture and art, a Toltec leader, possibly with the title of Quetzalcoatl, has been suggested as coming into the Maya area at that time, called in Maya, Kukulcan I.

Now there comes into the picture a Quetzalcoatl associated, in the early literature, with the episode of the Three Brothers. It is he who more nearly conforms to the early records, especially those on the Yucatan end of legend and history.

Time of arrival: 4 Ahau (1224–44). "They say," writes Landa (1941, p. 22) "that he arrived from the west; but they differ among themselves as to whether he arrived before or after the Itzas or with them." We are now considering a Quetzalcoatl or Kukulcan II who seems to have come with the Itza (1224–44) if we disassociate them, as we have tried to do, from Chichen II.[29a]

It seems fairly probable that, after the unrest in the country, and depopulation, resulting from the action of the two brothers, a Quetzalcoatl-Kukulcan arrived in Yucatan (Landa, 1941, p. 23), "after the death of the lords in order to calm the dissensions which their deaths had caused in the country." Herrera (4, 10, II) definitely states, "The course of events in the land after the death of the lords show that Cuculkan ruled this land together with them (Itza)."

In Series II of the katun prophecies in the Chumayel we learn, "Katun 4 Ahau (1224–44) is the eleventh katun according to the count. The katun is established at Chichen Itza. The settlement of the Itza shall take place (there). The quetzal shall come, the green bird shall come, Ah Kantenal shall come. Blood vomit shall come, Kukulcan shall come with them for the second time. (It is) the word of God. The Itza shall come" (Roys, 1933, p. 161; Barrera Vasquez and Rendon, 1948, p. 140).

"Kukulcan coming for the second time" may possibly refer to the culture-hero whom we have assumed was with the first Mexicans who came to Yucatan, or a leader with this title. Roys has suggested that the Itza, recognizing and associating Kukulcan with the buildings and sculpture already at Chichen, may have assumed a Kukulcan cult previous to the time of their arrival.

Association with the Itza. Landa (1941, p. 20) clearly links Kukulcan with the Itza. "It is believed among the Indians that with the Itzas who occupied Chichen Itza, there reigned a great lord named Kukulcan and that the principal building [the Castillo], which is called Kukulcan, shows this to be true. They say that he arrived from the west. . . ."

History and characteristics. Torquemada (6, XXIV) tells us: "The men of Yucatan venerated and reverenced this god Quetzalcoatl and they called him Kukulcan, and they said he had come there from the parts towards the west (which is the part of the country I am speaking of, since in respect to these parts Yucatan lies to the east). They say that the kings of Yucatan who are called Cocomes, which means *oidores,* were descended from him."

Herrera (4, 10, II) says, "He was a man of good ability; he had no wife nor children; he was very public-spirited and for this reason considered a god."

Landa (1941, p. 23) continues: "They say that he was favorably disposed, . . . and that after his return he was regarded in Mexico as one of their gods and called Quetzalcoatl; and they also considered him a god in Yucatan on account of his being a just statesman; and this is seen in the order which he imposed on Yucatan, after the death of the lords, in order to calm the dissensions which their deaths had caused in the country."

Tula and Kukulcan II. Before considering the later activities of this leader or priest, his innovations, and his relation to Mayapan, let us review his possible association with the historical background of Tula.

Following the Cuauhtitlan legends, the dispersal at Tlapallan seems to have taken place about the year 1000, and possibly an individual with the title of Quetzalcoatl–Kukulcan I is suggested at Chichen at this time, which is usually considered as about the beginning of the Toltec-Maya regime there.

Toltec and Nonoualco-Chichimec migrations. Another interpretation is possible. We know from the Historia Tolteca-Chichimeca (Kirchhoff, 1940; Kelley, 1950) that the migra-

tion southward may have referred to the Tolteca-Chichimeca and that it occurred sometime after the fall of Tula, about 1168.[30]

In the year 1 Tecpatl four chiefs of each of the two groups are said to have come to Tollan or Tula from Colhuacatepec (Colhuacan or Teocolhuacan). After a year, trouble was caused by Huemac, who had been adopted by the Toltec. He treated the Nonoualco with haughtiness. After a bloody encounter, both tribes left Tollan, first the Nonoualco (1116 or 1168) who, after killing Huemac in a cave, carried away the cult objects of Quetzalcoatl. Fifteen years later the Toltec band left the city.

The first group went to Morelos, in the present state of Puebla and the adjoining parts of Veracruz, the land of the Mazatec and Chocho-Popoloca. The route of the Toltec went north and then east and south to Puebla and Cholollan (Cholula). Among the Olmeca and Xicalanca they met their first resistance, and conquered them about 1173.

According to Sahagun, the Olmeca Uixtotin were considered as the children of Quetzalcoatl.[31]

KUKULCAN II AND THE ITZA IN CHICHEN III. The close association between the Itza and Kukulcan II and Chichen III has been pointed out. If the departure from Tollan after the fall of the city in 1168 is accepted, this would have occurred in the katun preceding the 8 Ahau (1185–1204) when the Itza, according to the theory suggested here, left Chakaputun for Chichen, and they arrived at the city, as we have seen, in Katun 4 Ahau (1224–44).

It can probably be assumed, as we have noted, that Chichen was not called Chichen Itza until about this time.

Landa gives us surprisingly little data on Chichen. He (1941, p. 22) speaks of the "principal building, which is called Kukulcan." This is the Castillo, a structure definitely stated by the Bishop (p. 177) to have been built by the three lords who were brothers and ruled for some years. Later, in describing "another city" (Mayapan) as established by Kukulcan, Landa (p. 25) speaks of the temples, "naming the largest, which is like that of Chichen Itza, the name of Kukulcan. . . ." Both these structures are very similar in plan, but in construction they belong to two distinct periods of occupancy, the first to Chichen II and the second to the later Mayapan period, corresponding to Chichen IV (Andrews, 1942, p. 261).

Landa also mentions (p. 25) at Mayapan, "another building of a round form, with four doors, entirely different from all the others in that land." This type of structure is usually associated with Kukulcan (Pollock, 1936), and yet Landa fails to mention a similar building at Chichen when he does describe, as we have just seen, the pyramidal Kukulcan temple there and compares it with the one at Mayapan. It seems quite evident that he could not have seen this round structure, called the Caracol, at Chichen, perhaps on account of the dense vegetation.[32]

The pilgrimages to the Sacred Cenote at Chichen were still going on in Landa's time. The plaza north of the Castillo was evidently kept clear of vegetation as this was the starting point of the short road leading to the well. Of all the structures at Chichen other than the Castillo, Landa mentions only two of the three platforms ("Mausolea") standing in this cleared space.

KUKULCAN II AND MAYAPAN. Much of the data in Landa seems to associate this culture-hero with the founding of Mayapan. This will be considered later.

KUKULCAN II AND IDOLATRY. The association between the beginning of idolatry and Kukulcan has usually been placed in the Toltec-Maya period and thus this Kukulcan would be Kukulcan I. The suggestion is here made that the worship of idols did not come until Chichen III, in the 13th century, when the Itza first appeared along with Kukulcan II. In point of fact, were it not for the close association in all the accounts between this culture-hero and the beginning of the worship of idols, it might be considered possible to place this period much later.

There is a succession of accounts in the *relaciones*. Many of them seem to be the verbal reminiscences of Gaspar Antonio Chi and they follow the same pattern: "Chichen, at first, had no idolatry. . . . A Mexican captain, named Quetzalcoatl or Kukulcan, introduced it." It is perhaps better to speak of a captain from Mexico because the ethnological term *Mexican* did not really appear until just before the foundation of Tenochtitlan in 1325 with the first "elected" ruler, Acamapichtli, in 1376.

There follows a series of quotations from the *relaciones:*

It is said that the first population of Chichenyza were not idolaters until Kukulcan, a Mexican captain, entered into these parts. He taught idolatry, and necessity, as they say, taught them to worship idols. [RY, 1:121.]

The ancients of this province say that anciently, about 800 years ago, there was in this land no idolatry and after the Mexicans entered it and took possession of it, a captain who was called in the Mexican language Quetzalquat which means in our language 'plumage of serpent' . . . and this captain, noted above, introduced into this land idolatry and the use of idols for gods which he had made of wood, of clay, and of stone. And he made them worship these idols and they offered many things of the hunt, of merchandise and above all the blood of their nostrils and ears and the hearts of those whom they sacrificed in his service. And they incensed them with smoke of copal which is the incense of this country. [RY, 1:255.]

The natives of these provinces were great idolaters. Especially the lords and *principales* worshipped idols of stone, wood, and clay and they offered incense of the country, precious stones, and feathers, hearts and blood of men and animals and they asked them [the gods] for health and good rains and they say that the first settlers of Chihinisa [Chichen Itza] were not idolaters until the Mexican Captain, Kul Kau [Kukulcan-Quetzalcoatl], came into these parts. It was he who taught idolatry or necessity, as they say, taught them to idolatrize. [RY, 1:215.]

Another (p. 148) runs: "It has not been a thousand years they worshipped idols, because the lords of Chichen and their subjects wished it to be said that they were not idolaters." It seems clear that these two time periods join others which are well beyond the range of any tradition present at the time when they were written, about 1581.

A final passage on idolatry, taken from "A song of the Itza" in the Chumayel (p. 115), relates: "A tender boy was I at Chichen, when the evil man came to the land. Woe! At Chichen Itza heresy was favored."

From a study of Maya archæology, even including the period of the Toltec, neither in the area as a whole nor at Chichen nor at Tula do we find remains, to any great extent, of stone idols such as those found in Aztec Mexico. Landa (1941, p. 110) writes, "They had some idols of stone, but very few. . . ." Herrera (3, 7, III) speaks of "idols of clay and of wood" but does not mention stone images.

It is probable that idolatry centered mainly around the use of small images of wood, clay, and (to a far lesser degree) stone (Tozzer, 1941, pp. 313–14). This type of worship, so prevalent

in late Maya history and so important—as shown by the objects dredged from the Cenote of Sacrifice—will be discussed under sacrifice in general. There are several references to carrying their idols about and "spreading them out in the courtyard." Furthermore the friars often speak of burning the idols.[33]

This association between the introduction of idolatry and Kukulcan in Chichen III seems to be borne out by the fact that Brainerd thinks that the type of idol known as "the figurine *incensario*" appeared at the earliest midway or later in his "Late Mexican Period" (ca. 1250–1450) on stratigraphic evidence from Mayapan. He writes in a letter, "The distribution of similar figurines is to the west in the earlier periods as the Zapotec figure urns and much material from Veracruz (Drucker's Cerro de las Mesas). There is also considerable evidence of ceramic contact with the Chiapas-Western-Campeche coastal regions in Late Mexican times." [34]

KUKULCAN APPORTIONS THE LAND. Herrera (4, 10, II), following Landa, informs us:

Cuculkan divided the land among the latter (inhabitants of Mayapan), giving and assigning pueblos to each one. . . . By this means the land was quieted and all lived in great peace for some years with Cuculkan who governed them in justice until, after having arranged for his departure and charging them with good government in which he was leaving them, he returned to Mexico by the same road on which he had come.

KUKULCAN'S RETURN TO MEXICO. It is difficult to determine how long Quetzalcoatl, the man or the culture-hero, is supposed to have remained in Yucatan. Landa (1941, p. 26) tells us: "This Kukulcan lived with the lords in that city for several years; and leaving them in great peace and friendship, he returned by the same way to Mexico, and on the way he stopped at Champoton, and, in memory of him and of his departure, he erected a fine building in the sea like that of Chichen Itza, a long stone's throw from the shore. And thus Kukulcan left a perpetual remembrance in Yucatan.[35]

APOTHEOSIS AND RITUAL IN HIS HONOR. After the departure, Landa (1941, pp. 157–58) notes that among the Indians there were

some who said that he had gone to heaven with the gods, and on this account they regarded him as a god, and fixed a time for him in which they should celebrate a festival to him as such, and this was celebrated throughout all the land until the destruction of Mayapan.[36] After this (city) was destroyed, it was celebrated only in the province of Mani and the other provinces, in recognition of what they owed to Kukulcan, presented, one one year and another another, to Mani, four, and sometimes five magnificent banners of feather(s),[37] with which they solemnized the feast in the following manner. . . . On the 16th of (the month) Xul, all the priests and lords assembled in Mani, and with them a large multitude from the towns, who came already prepared by their fasts and abstinences. On the evening of that day they went forth with a great procession of people, and with a large number of their comedians from the house of the lord where they were assembled, and they went very quietly to the temple of Kukulcan, which they had previously properly adorned, and having arrived there, and making their prayers, they placed the banners on the top of the temple, and they all spread out their idols below in the courtyard, each for himself, on leaves of trees, which he had for this purpose, and having kindled new fire, they began to burn their incense . . . and to make offerings of food. . . . The lords and those who had fasted remained there without returning to their houses for five days and five nights in prayer, always burning copal and engaged in their offerings, and executing several sacred dances until the first day of Yaxkin.[38]

Landa (1941, p. 158) adds, "They said and considered it as certain that Kukulcan came down from heaven on the last day of these (five days), and received their services, their vigils and offerings. They called this festival *Chic Kaban*."

PROPHECIES OF HIS RETURN. Both in Mexico and in Yucatan there is a wealth of predictions of the return of Quetzalcoatl. These have often been linked with the prognostication of the coming of "a foreign race" and the appearance of a new religion. According to many of the Mexican chroniclers, Cortés, as has been mentioned, was greeted on his arrival as the returning Quetzalcoatl. Here we are concerned only with one type of the Maya prophecies. Landa (1941, pp. 42–43) writes:

In the same way that the Mexican nation had signs and prophecies of the coming of the Spaniards, and of the destruction of its power and its religion, so did the populations of the Yucatan some years before the *Adelantado* Montejo conquered them; and in the mountains of Mani, which is in the province of Tutul Xiu, an Indian named Ah Cambal, (who held the) office (of) *Chilan*, (which means), "he who has the duty of giving the answers of the god (*demonio*)," announced to them publicly that they would soon be subjected by a foreign race, and that they would preach to them one God and the power of a tree, which in their language is called *"uahom che,"* which means "a tree erected with great virtue against the evil spirit."

Roys (1933, Appendix D), writing of the different classes of Maya prophecies, comments on the type which deals with the actual return of Quetzalcoatl:

These aroused the interest of most of the early missionaries, since they were believed to foretell the coming of the Spaniards and the conversion of the Maya to Christianity. . . . To anyone who knew them only through these Spanish translations, they would appear to be inspired by missionary propaganda; but an examination of the Maya texts leads to a conviction of their genuine character, in spite of the fact that any mention of the name of Quetzalcoatl has been carefully deleted. . . . What Chilam Balam had in mind was the return of Quetzalcoatl and his white-robed priests. . . .

There is a reflection of this attitude in the first speech Montezuma II addressed to Cortés on his arrival in Tenochtitlan (Cortés, 1908, 1:234):

We have known for a long time, from the chronicles of our forefathers, that neither I, nor those who inhabit the country, are descendants from the aborigines of it, but from strangers who came to it from very distant parts; and we also hold, that our race was brought to these parts by a lord (Quetzalcoatl), whose vassals they all were and who returned to his native country. After a long time he came back . . . those who remained here were married with the native women of the country . . . (they) had built towns . . . (and) when he wished to take them away with him, they would not go . . . so he departed.

And have always held that those who descended from him would come to subjugate this country and us, as his vassals; and according to the direction from which you say you come, which is where the sun rises, and from what you tell us of our great lord, or king, who has sent you here, we believe . . . that he is our rightful sovereign. . . . Hence you may be sure, that we shall obey you, and hold you as the representative of this great lord of whom you speak. . . . You may command at your will . . . because you will be obeyed, and recognized, and all we possess is at your disposal.

Innovations of the Itza

In the discussion of the archæology of Chichen III and the ethnology of this era, we shall attempt to place here definite buildings and certain classes of persons, including types of priests, who appear for the first time in Chichen III.

If, as is suggested, the Itza reached Chichen in Katun 4 Ahau we can, perhaps, assume that a few of the new architectural ideas were due to them and we can also identify them with some of the personages not recognized in the previous period.

Idolatry. There seems no question but that the worship of idols was introduced by a Kukulcan and that this new custom has been assigned to Kukulcan II. The question of idolatry is discussed with the Cenote cult (Chapters V and VI).

Human sacrifice. This means of doing honor to the gods by extracting the heart is well known in Mexico. Immolation and its depiction in Chichen II and III (Chapter III-8), together with the whole subject of human and other sacrifice (Chapter VI-3), will be considered later.

There is a question concerning its first appearance in the country. Was it present among the Maya in Classic times? Striking evidence of human sacrifice is seen at Palenque in the newly discovered tomb whose entrance is blocked by a stone box containing the remains of those put to death when the ruler or priest was buried, with all his jade finery, in the ornate sepulture.

Stela 11 and possibly Stela 14 at Piedras Negras show the actual sacrifice. That it was not a common practice in this early period seems certain.

The many references to its introduction into Yucatan by Kukulcan and the Toltec sometime about 1000 are given in another place. The association of the Itza with Kukulcan opens the question whether human sacrifice at this period could possibly have been another Itza innovation.

Cenote ritual. It is perhaps questionable to list the inauguration of ceremonies for rain at the Sacred Cenote as one of the innovations of the Itza. As will be shown later, there is some definite evidence that the ritual was actually carried out in Katun 8 Ahau (1441–60), which was the first in the period designated here as Chichen V. The same ritual seems to have been performed by the Aztec and lingered on, even up to the present time, among the native population.[39]

Use of bow and arrow. In the main, the pre-Spanish life of the people, as we know it from the *relaciones*, from Landa, Herrera, Torquemada, and others, seems to have been not earlier than the stage of Mayapan and of Chichen IV, after the close of the main building period at Chichen.

It is at this time or even later that the use of the bow and arrow was introduced from Mexico. Herrera tells that the Cocom governor of Mayapan brought in Mexicans from whom the natives learned the use of the bow and arrow and other arms. At the time of the conquest, it is well known that the natives used these weapons in resisting the Spaniards. At Champoton, both Cordoba (Torquemada, 4, III) and Grijalva (Landa, 1941, p. 13; Diaz del Castillo, 1, IX) encountered native bowmen. Both received "arrow wounds," the former dying, as the result of them, in Cuba. (See also Cervantes de Salazar in Tozzer, 1941, pp. 235–38.) In one place Landa (1941, p. 121) tells us that "Their offensive arms were bows and arrows . . . pointed with flints or very sharp teeth of fishes for heads, with which they shoot with great skill and force," and he goes on to cite other weapons. He says (1941, p. 31), "These tribes lived so peacefully that they had no quarrels, nor did they make use of arms, nor bows even for hunting, although today they are excellent archers. . . ." In the *relaciones* (RY, 2:186) we read of bows (*chulul*), arrows (*halal*), spears (*nabte*), and shield (*chimas* [chimalli]).

Three references to bows and arrows come from the Chumayel: "Now began the archery of Ox-halal Chan ('Chan of the Three Arrows')" (p. 76). "The shield shall descend, the arrow shall descend (upon Chakanputun) together with the rulers of the land" (p. 160). "That is the time when the arrows (*halal*) are piled in heaps" (Roys, 1949, p. 174). Later a type of sacrifice, shared by the late Maya and Aztec, is described where arrows are shot into the body of the victim.[40]

The significant point is that, throughout the Great period and to the end of that we have called Tula-Toltec times, in all the bas-reliefs and the frescoes where there are battle scenes, no bows and arrows appear.[41] Lances and spears are seen mainly in the Classic Maya period, including Yucatan-Maya; in Tula-Toltec times the spear persists, but the Mexican *atlatl* or throwing-stick and darts are the common weapons among the Toltec. In Chichen III, where the Itza first are heard from, there are no pictorial representations of the bow and arrow. The following period, however, from 1280 to 1460, includes most of the time when the so-called Chichimec tribes were using bow and arrows, as were the Aztec tribes when setting out from Atzlan and the Seven Caves in 1168, and these weapons were common until their arrival on the shore of the lake at Chapultepec, some time before the establishment of Tenochtitlan in 1325.[42]

End of Chichen III

The present ceramic picture seems to show that there was little or no overlapping with Mayapan and the last main building period at Chichen. Hence, as we shall see, the end of Chichen III is placed at about the time of the "founding" of Mayapan and the beginning of Chichen IV.

6. CHICHEN III ARCHÆOLOGY

The historical background of this second Mexican period in the history of the site and the relationship of the Itza and Kukulcan II to Chichen III or Stage B have now been covered. As has been noted, the term *Chichen Itza* may now be properly applied to the site. Here we are concerned with the archæology of Chichen III (B) as a whole and as distinct from Chichen II or the first of the Toltec periods here.

This era has been regarded as following that when the city was "abandoned" by the first group of Toltec-Maya about 1150. In the historical section, we explored the possibility of subdividing this period into B′ and B″, the first dominated by the Maya and the second when the Toltec regained supremacy. This is considered in detail in Chapter IV.

Unlike the transition from Chichen I to Chichen II, which was easy to determine by the arrival of a Mexican people, together with new and foreign ideas in architecture, art, and religion, the change from Chichen II to Chichen III was not marked by definitive data. Just as many buildings in Chichen I were undoubtedly used in Chichen II, so, to a far greater extent, those of the latter period continued to be used and the same two ethnological groups were represented in the art.

The persistence of the various features of culture first introduced by the Toltec in Chichen II into the succeeding periods

of Chichen III and IV has a striking analogy with the way many of the same characteristics at Tula itself were carried over into Chichimec and Aztec times. Here also, the determination of the break is often difficult to make.

Criteria for isolating Chichen III. (1) Can the type and the plan of the buildings be used? (2) Can the character of the stonework, of the carvings, or the use of stucco serve as criteria? (3) Can the type of design on the bas-relief or on the frescoes play a part? (4) Can the presence or absence of certain kinds of construction and of decoration aid in separating the two periods? Most of the answers to these questions furnish indications but none gives an unequivocal answer to our problem. Could innovations have been brought about by influences from outside Yucatan? Could the Itza have been responsible for some of the changes? Wandering bands of Mexicans were undoubtedly present in the country. Let us look at the differences between Chichen II and III.

Ceramics.[43] Of all the criteria of archæological investigations, the most useful is probably the study of the pottery of a site. Unfortunately stratigraphy seems to be, up to the present time, almost completely lacking at Chichen. The association of specific types of pottery with the structures allocated to Chichen II and III, it might be thought, would answer some of our questions. The data are not as adequate as might be wished.

It is germane to the discussion to point out that our information on pottery covers only certain parts of the site. The study collection of potsherds was, for the most part, gathered around and in connection with generally fairly well preserved buildings of the Yucatan-Maya or the Toltec-Maya periods. The collection is by no means a good sample of the whole site.

There is a generally accepted thesis that Chichen I is a pre-Plumbate site, Toltec Chichen (II and III) a Plumbate site, and Mayapan a post-Plumbate city.

From Vaillant (1927, pp. 360–63) we learn that there are several locations at Chichen where pottery associated with post-Plumbate wares is found as an indication of "a very definite stage of the re-occupation of Chichen of buildings standing at the time of the disruption of the Toltec."

Brainerd finds, also at this site, a "long period of continuous recurrence of Mexican influences." He asks, "Had architectural effort ceased at Chichen during the Mayapan period?" His Early Mexican should correspond to our Chichen II and his Middle Mexican, primarily, to Chichen III. Unfortunately, this is not borne out by the ceramic material available. Brainerd writes (February 18, 1954): "Your Chichen II and III buildings belong to my 'Early Mexican Substage' which I date roughly 1000–1200 A.D. Your Chichen IV *may* belong in my Middle Mexican Substage (1200–1275), if not, it also belongs in my Early Mexican. I have no evidence that any building at Chichen Itza was built contemporaneously with the main Mayapan occupation." He continues: "The main occupation of Mayapan was during your Chichen III.[43a] It is represented at Chichen by surface debris, often post-dating the fall of buildings and as a major constituent in the Cenote material."

Architecture. It might be thought that the character of the masonry could be used as a chronological criterion, but it seems to be a general fact that good and poor stone construction are found in both Chichen II and Chichen III. The plans of certain structures do furnish some clue, not so much in and of themselves but as showing similarity with the plans of some of the structures dating from a later period, of Mayapan and those on the East Coast, on the one hand, and Chichen III on the other. We have noted the most important structures which were definitely erected in Chichen II. The Castillo, as we know it, is associated with Quetzalcoatl-Kukulcan. Landa (1941, p. 25) quite definitely links this building at Chichen with the one at Mayapan. They have several features in common, to be sure, but the first is a vaulted structure and belongs in Chichen II, whereas the second had a beam ceiling and most certainly is to be placed in the period at Mayapan corresponding to Chichen IV. It should be remembered that tradition and history gathered by Landa from the natives at Mayapan probably concerned the periods of Chichen III and IV rather than the earlier era.

From plan alone, the common temple with a two-column entrance is found in both stages, II and III. The gallery and the colonnade, on the other hand, seem to be found in the latter. The early Spanish references to the *portales* would lend weight to this idea. There also belongs here the gallery-patio type of structure. A glance at the available plans of the most important structures of Mayapan and of certain sites on the East Coast, especially of Tulum, show many porticoes and colonnades. The comparison of these with similar structures at Chichen resulted in the idea that Mexican Chichen might be divided into two groups. Chapter III-2 contains a comparison of the plans of buildings at Chichen with those in other parts of Yucatan and other regions of Middle America.

In the sequences of construction the building assemblage around the House of the Phalli and the various changes in the Temple of the Wall Panels are but two of many examples of early and late Mexican buildings.

The bench and the dais or altar are among a group of secondary features which, in general, are limited to Chichen III.

Art and its expression. The difference in execution of the bas-relief will be pointed out in several places. The mask in bas-relief on a single stone is one of the features which seems to show most clearly the change in the skills of the sculptors in the two stages now being considered. Carelessness creeps in, shoddy work is detected in the later era. The same is true in connection with fresco painting.

Scrolls. It is gratifying to find, in this attempt to separate Mexicanized Chichen into Groups A and B, or Chichen II and III, that Proskouriakoff suggests one line of proof of this thesis. She has kindly pointed out to me the possibility of stylistic distinctions between scrolls as noted in Group A from those in B. "Scrolls with interior decoration and also certain design structures, derived from Late Classic scrolls are exclusively found in Group A. They stem outward from the figure; while, in B, where scrolls or other decorated elements are added, they depend from the borders toward the figure." Thus we find "a fundamental style difference" in the two groups.

Ethnic variations. There is little difference in the depiction of the typical warrior as shown in Chichen II and III but we shall find other types of Toltec in the latter period. The portrayal of the Maya shows a greater difference in the case of priests, principally in Chichen III.

Change in leadership. The most important evidence on dividing the archæological history of Chichen into Chichen II (A) and Chichen III (B), with subdivisions of the latter into B′ and B″, will be explained in detail later. The data depend mainly on the relative number of Toltec and Maya in various structures, the position they occupy in the building itself, their

characters as shown by dress, and the existence of those with gestures of defeat and others shown as prisoners.

The relative chronology of the Temple of the Chac Mool, and the Temple of the Warriors and its colonnade which completely cover it, was the fundamental reason for suggesting the subdivision of Chichen III or B into B′ and B″. In the present discussion this stage of Toltec-Maya, B, will be considered as a whole.

Correlation with Isla de Sacrificios periods. Du Solier (1943, p. 67), in his excavations here, divides the finds as coming from below the stucco floors or from the surface. The lower he identifies with Mazapan on account of the ceramics, "cherry-on-coffee," similar to that found at Tula. The surface group embraces all vessels of Fine Orange, those of cream clay, and those tentatively placed in "the so-called Aztec I, Chichen Itza, and even extending into Aztec II." Unfortunately we cannot make this ceramic differentiation at Chichen. But it is important that Du Solier considers his second period contemporaneous with that of the Temple of the Warriors on account of the design of a polychrome vase showing two Mexicans, which he considers "true copies of the sculptured and painted figures in the Warriors." This will be described later.

Distribution of some traits in Chichen II (A) and III (B′, B″). Before considering these characteristics, their distribution is of some interest (see Table 17). The later chronological position of the Temple of the Warriors and the Northwest Colonnade which were built over the Temple of the Chac Mool is obvious. Stylistically the group of the Chac Mool seems nearer the features of Group A. On the other hand, many of the traits found in the later Warriors and the Northwest and North Colonnade galaxy (B″) are absent in the Chac Mool set, but other characteristics appear. Several types of priests, as we shall see, do not appear in A. The sorcerer rarely is found except in B″; and the sun disk on columns is also in the same subgroup together with the type of Toltec called "anomalous."

Atlantean Figures as Criteria for Identifying Chichen III Structures

It is to be understood, once more, that there are no infallible means of separating the construction of Chichen II and III. There are indications, some pointing one way, some another. What follows is purely tentative until more extensive investigations have been carried out.[44]

The single feature of the presence of a male individual, carved in the round and supporting something on his head, is here used as a possible determining factor regarding many of the structures dating from Chichen III.

Thompson (1950, p. 309) has made the suggestion that atlantean figures in the round are found at the close of the Mexican period or, presumably, the end of our Chichen II.[45] The most common type is that used for the support of altars or "tables," entrance lintels, and interior vaults or flat roofs. If Thompson's "Late Mexican" could be interpreted to mean Chichen III, an interesting possibility would be raised.

Large columns. Using the presence of this type of pillars as a guide, we find them in several places here. They formed the entrance to the next to last structure built on the site of the original Temple of the Initial Series (Str. 5C4). This is placed by Vaillant in his "Degenerate" period. There is, as we have seen, no reason to regard the lintel (on which there is a date) as contemporaneous with the structure in the debris of which it was found. The atlantean columns themselves were, most probably, used in an earlier structure than that "degenerate" shrinelike building where they are now.

There are three edifices where the large atlantean figures form the vault supports of the interior room. One is the Temple of the Little Heads (Str. 5C3), which is placed by Vaillant in his Period I, that of "Original Construction." There are several reasons why the building, as we know it now, belongs to a much later time, possibly late Mexican Chichen. The two large supporting figures show their breechcloths pulled aside, an attitude possibly associated with the Itza that will be discussed later.[46] There are abundant evidences that there was at one time in the interior room an altar or table the top of which was supported by small atlantean figures. We shall see this feature in several other buildings also being placed in Chichen III.

The Temple of the Interior Atlantean Columns (Str. 3C6) shows an amazing similarity in arrangement of its pillars with a structure at Tula. Knowing of no chronological division at this site corresponding to Chichen II and III, I count the presence of the atlanteans as the only reason for placing the temple in III.

The Temple of the Jaguar Atlantean Columns has two free-standing atlantean columns in the interior room and two pilasters of the same type (Ruppert, 1952, fig. 143,*b*). All wear jaguar masks. At the base of the structure are portions of other atlanteans fallen from the temple entrance.

Table or altar supports. Flat stones held up by small atlantean figures in the round are a common feature at Chichen. With one exception, all the structures in which these are found seem to date from Chichen III: the Temple of the Little Tables, the Temple of the Big Tables, the Southeast Colonnade, and the Temple of the Little Heads.

The nonconformity is the Temple of the Jaguars, which clearly belongs in Chichen II. There seems reason to believe that the altar, discovered by Le Plongeon in the portico of this structure, was probably moved to this position after the building was erected. Breton and Roys point out a difference in the thickness of the abacus-like upper member of the figures (Seler, Coll. Works, vol. 5, pl. 20, nos. 4, 14, 6) which seem to show that the fifteen atlantean supports may not originally have all belonged to the same altar.

Atlanteans in bas-relief and in fresco. Among other difficulties in this tentative placing of atlanteans in Chichen III is the fact that figures of this type in bas-relief and in fresco most certainly appear in Chichen II. In the future discussion of the distribution of the different designs at the top and bottom of the various faces of the columns and door jambs, we shall note atlantean figures in low relief, not only in several of the structures just mentioned but also in the Castillo and the supporting recumbent figure in bas-relief and in fresco in the Ball Court buildings. On the four sides of the two columns in the Lower Temple of the Jaguars are atlanteans. Both the Castillo and these other structures belong, as we have seen, in Chichen II. There are also atlanteans as a frieze in the lower Temple of the Jaguars, on drums of columns of Str. 6E1, and in the North Colonnade.

Some Structures Assigned to Chichen III (B)

In general, certain types of buildings seem to belong only in this stage: the colonnade, most of the porticoes, the tribunes, and the gallery-patios. The temple-pyramid, the entrance to which lies through a portico or a colonnade, belongs here, and probably so does the sweat house. Ball courts occur in both Chichen II and III.

The most important of the buildings tentatively placed in Chichen III are listed below, starting with the ones located on the great court north of the Castillo (fig. 1). No distinction is made at this time between buildings dating from B′ and B″. It should be noted that the criterion for placing structures in these two subgroups is the presence of bas-relief of Toltec and Maya. There are buildings, such as tribunes, for example, which seem to belong in Chichen III (or B), but in the absence of ethnological data they cannot be assigned to either of the subgroups. The same difficulty is encountered where Maya and Toltec are evenly divided. At either end of the court south of the House of the Phalli, for example, there are four columns, displaying a pattern consisting of two pillars in each group bearing, with one exception, eight Maya and eight Toltec figures.

Mausolea. By reason of the character of the design on these platforms, they seem clearly to belong with the Temple of the Warriors, which is most closely concerned with the Jaguar-Eagle cult. These are the Tribunes of the Eagles (Str. 2D3), of the Skulls or the *Tzompantli* (Str. 2D2), and of the Cones (Str. 2D4).

Patio structure (Str. 2D6). This first building in the northeast corner of the court is the gallery-patio type which seems always to be found in Chichen III, as has already been suggested. Ruppert (1943, p. 231) thinks it was built prior to the structure to the south, listed next.

Temple of the Big Tables. This is the type with the characteristic atlantean altar along the back of the shrine room. Unlike the Temple of the Little Tables, it does not have a colonnade.

Temple of the Warriors complex. This, as we have seen, includes the Temple of the Chac Mool, the covering Temple of the Warriors and its Northwest Colonnade, together with the North Colonnade.[47] This last structure, with its indications of the Jaguar-Eagle cult, clearly belongs with the Warriors. Roberts (1927) considers it later than the Warriors and its colonnade.

Court of the Thousand Columns. Viewing the temples, colonnades, and other structures around this great quadrangle east of the Castillo, we see the following:

West Colonnade. Morris dates this earlier than the Castillo, as known in his day. It seems, however, from its plan to belong with the other colonnades. It does face this temple rather than the big court to the east, although it has a back entrance on this plaza.

North Colonnade. This shows evidence of many changes, with its square and round columns and its dais so similar to that of the Northwest Colonnade. As already indicated, it belongs with the Warriors galaxy.

We now reach the structures on the east side of the court. It has often been remarked that this line of buildings bears to the east and is neither parallel to the west side nor at right angles to the colonnade on the north. One reason advanced for this is that the Mercado (Str. 3D11), having been previously erected, necessitated the swing of the line of buildings to the east. It is worthy of mention that Str. 3E1 is parallel with the Mercado.

Starting southward, we come first to Str. 3D5, a colonnade; then the *Northeast Colonnade* (Str. 3E1); Str. 3D7, a colonnade complex; *Temple of the Little Tables* (Str. 3D8); and *Thompson's Temple* (Str. 3D9), a structure with colonnade, showing very crude fresco-painting. Then, at the corner, comes the *Southeast Colonnade* (Str. 3D10), with numerous benches, a painted capstone, and atlantean figures. The south end widens into a colonnade of 11 rows of columns. Here an extensive system of secondary walls runs from pillar to pillar, making seven rooms out of part of the colonnade. It was from one of these walls that a "late" bench was noted. The suggestion that all the foregoing construction along this north-south line may belong to Chichen III is perhaps not justified, but that their occupation extended into this period seems certain. Possibly some of the rooms, at least, may have been used even in the period of Chichen IV in connection with the various minor platforms which were found throughout the great court.

With the exception of Str. 3C12, it is probable that the various structures behind and east of those just described should be grouped in Chichen III.

Mercado. This also is placed in Chichen III, along with all the other patio type of buildings. No structures with this plan have yet been found in any other site in the Maya area.

South of the Castillo. We next pass to a scattered group of structures southwest of those just described.

Temple of the Xtoloc Cenote (Str. 3D13). This temple, named from the large cenote just to the south, is entered through a colonnade. Of the bas-reliefs on the three columns, which are available, only one shows itself to be Toltec (Ruppert, 1952, figs. 133–36).

High Priest's Grave (Str. 3C1). Although very similar in plan to the Castillo, it is put in this period on account of various features (to be touched upon presently) together with a late incense burner in a grave which seems to have been contemporaneous with the erection of the structure. This placement entirely overlooks the hieroglyphic inscription on the southeast column already mentioned. Ruppert (1952, fig. 121) gives other stones with hieroglyphs. Of the figures on the four columns, again only one seems to be Toltec. To the southeast is the *Temple of the Interior Atlantean Columns* (Str. 3C6), which has already been mentioned.

Some of the Caracol complex. The structure to the southwest and the one at the northeast corner of the main platform of the Caracol (Str. 3C15), together with those of the South Annex—including the Bench House, the Sweat House, the East Building—all seem to belong in Chichen III. Three figures on one of the sculptured jambs of the latter show unusual characters which seem to be Maya. Ruppert (1952, fig. 126,*c*) gives two sides.

Temple of the Wall Panels (Str. 3C16). In general plan this structure with its colonnade is similar to the Temple of the Warriors and its peristyle. The wall bas-reliefs seem to be late in character and similar, in some respects, to the Maya codex style. This has already been discussed.

Monjas, Mexican Court. This is the Toltec addition to a Maya structure, already mentioned. It consists of a court, the south and east sides each being formed by a portico; on the west is a pillared temple. The southeast bench in the south building has a sculpture on the front and one side (Ruppert, 1952, fig. 129,*c*,*d*). The tops of 14 columns have been photographed, most of these clearly show a Toltec lying at length.

TOLTEC STRUCTURES IN PHALLI GROUP. Some distance south of the Monjas are a number of buildings in the vicinity of the Maya House of the Phalli and the so-called Temple of the Initial Series. As part of the Toltec complex, just south of the former and probably all later than Chichen II, is a court at either end of which is a portico of four columns with Maya and Toltec figures, together with the Temple of the Atlantean Columns (Str. 5C15). Also belonging in the same group, to the southwest is the Temple of the Owls (Str. 5C7) and to the northwest is the Temple of the Little Heads (Str. 5C3). [These two and the latest reconstruction of the Temple of the Initial Series may belong in Chichen IV.—T. P.]

SOUTHWEST GROUP. There is a cluster of many buildings, most of which belong in Chichen III, located in the southwest part of the site. Of these I mention the so-called Castillo of Old Chichen (Str. 5B18), a columnar temple where the two columns and the jambs are decorated with a floral pattern; the Temple of the Jaguar Atlantean Columns (Str. 5B21), possessing two columns and two pilasters, each with a Toltec atlantean wearing a jaguar mask, and an entrance colonnade of four pillars, with 16 Toltec warriors; and Str. 5B16, whose 24 visible faces of columns all seem to be Toltec, as in the edifice just described.

SOUTHEAST GROUP. Here is a smaller cluster of structures, among them the Temple of the Hieroglyphic Jambs (Str. 6E3) and the interesting Str. 6E1. Some of the drums of the two columns of this structure have been found. In addition to two groups of hieroglyphs are bas-reliefs of personages (probably some of whom are Maya), some curious atlantean figures, "star glyphs," and other figures.

NORTHWEST GROUP. Around a court here are four structures, all of which seem to date in the latter half of Chichen III. Strs. 2C1 and 2C4 have, at each entrance, two columns on the front of which is sculptured a serpent with the mouth at the base and rattles at the top (fig. 122). The latter structure has the same design on two jambs.

Str. 2C3 is a temple with two square columns, each of which has had its five drums reassembled along similar lines. At least two of the drums in each column, carved with a mask, are upside down. Only part of each main figure, either a Maya or a Toltec, is present.

To the west of this group is a single temple (Str. 2B2). Most of the figures on the two square columns seem to be Maya. Ruppert (1952, fig. 117) shows the north face of the south column.

CENOTE DISKS OF GILDED COPPER. Chronologically, there should be added to Chichen III or IV the gilded copper disks recovered from the Sacred Cenote. The designs seem, in general, to be later than those embossed on the gold ones, which have been assigned to Chichen II. Figures of Maya do not appear on the copper ones. The ideas expressed and the mode of representation seem to be late and exclusively Mexican or Mixtec.

LATE FEATURES

WOODEN ROOFS. The pole-and-thatch roof and the flat timber-supported roof seem, in themselves, to furnish no criteria of age. Both the stone-vaulted and the timber roof are found from Classic times onward. The pole-and-thatch roof of the patio type of structure, shown in the reconstruction of the Mercado (Ruppert, 1943), probably does indicate a late period. The very tall thin columns around the court here should also be mentioned in the same connection. But, as we have already indicated, this type of structure seems to have been absent both in Mayapan and on the East coast.

BAS-RELIEF. As already noted, there seem to be at least two styles of relief sculpture. One, in Chichen II, is seen mainly on the door jambs of the Castillo and in various places on the structures of the Ball Court group. The other, in Chichen III, is associated with the Temple of the Chac Mool, Temple of the Warriors, the North, Northwest and Northeast Colonnades, and the Mercado. The contrast in style and content of the two groups will be considered later.

Comparison of the carving on the dais or altar in the various structures brings varied results. That in the gallery of the Mercado is associated with the upper of two floors. Four meandering serpents on the cornice with celestial signs recall similar features at Tula and also on late Mexican objects. The three sloping faces carry two lines of prisoners with what seems like a human sacrifice in the center of the front. The character of the bas-relief is not greatly unlike that of the Lower Jaguars chamber. Except for the character of the carving of the serpents, the relief on the dais of the Northwest and North Colonnades belongs in the same class.

FRESCO PAINTING. Another reason for separating Chichen II and III is seen when one tries to make a distinction in the style and character of the frescoes. That in the Monjas and in the Temple of the Jaguars seems in a very definite class from those in the Chac Mool, the Warriors, and the Northwest Colonnade. Compare the two important scenes in the Warriors (Morris, 1931, pls. 139, 159) with the scenes in the Jaguars structure. Human sacrifice is seen in both places but the refinement in drawing is lacking in the Warriors fresco (*ibid.*, pl. 145).

REPAIR. The most evident attempt to restore the various structures is in connection with strengthening the round columns by enclosing them in square pillars. The weakness of the heavy vault resting on columns is brought out clearly in the North Colonnade where of its 270 supports, 105 are each reinforced by a square masonry covering. The four entrance columns in Str. 5C10 are strengthened in the same way, as are three out of the six in Str. 5B2.

In one case (Str. 3C11) between the two columns at the entrance to the building is a rough column unsymmetrically placed, evidently as a support to a cracked stone lintel (L. and R. L. Roys).[48]

In regard to the bas-relief in Maudslay's Temple C, Breton calls attention to the fact that in some places where the wall had been repaired the new stones had not been carved but the missing details had been indicated in colors (Seler, Coll. Works, 5:307).

It should be noted that in the description of the painting on the façade of the Temple of the Warriors, Charlot (in Morris, 1931, pl. 164) counted 131 different coats of plaster on this part of the structure and, of this number, 109 coats which had been flaked away before the pattern could be copied.

ALTERATIONS. *Secondary walls.* There is a strong possibility that the walls enclosing and connecting columns, thus turning a part of a colonnade into a structure with rooms, belong in Chichen III. The situation in the Southeast Colonnade (fig. 47) has already been mentioned. A similar situation is reported in Strs. 3C4, 3E1, 5A2, and 5B23. The side walls of an interior room in Str. 2C1 enclose two columns.

Filling in of rooms. The filling in of rooms seems to have been carried out from the first occupation of the site. The most notable example is the middle room of the northern range of the second story of the Monjas and the line of center rooms in the eastern wing below. In both cases the purpose would seem to have been for strengthening the structure with the idea of adding rooms above.

Blocking of doorways. Among several examples of this procedure, two will be mentioned. The first is Str. 5C9; the north doorway is blocked as well as the south one in the east room.

The last structure (Str. 5C4) on this special site, now supporting the lintel of the Initial Series, has had a varied history (fig. 11). The present building with a single room may well have been a shrine, so common at Mayapan and on the East Coast. Two lateral doors have been blocked.

Rearrangement. The best example of this is in Str. 2C3 in the Northwest group, first pointed out by Maler and later by Seler (Coll. Works, vol. 5, pl. 23), Ruppert (1952, fig. 117,*b*) and de Harport (Carnegie Institution of Washington, photos. 53-24-683–90). There are two square columns. Each of these has been re-erected with care but with no attempt at the proper sequence of the drums or to fill in between the various parts of the pillars. The designs on the two differ slightly. In general, there are three masks, one above the other, each with long noseplugs (fig. 342). The first and third are upside down; the latter also has a partial design which cannot be traced. The fourth section usually has part of a human figure. In the south column, the figures on the north, east, and west sides seem to be Maya, the lowest drum being a Jaguar-Serpent-Bird. In the north column, the figure generally is in second place, with the feet in the lowest stone. The figures on all four sides of the drum seem to be Toltec.

Re-use. The universal custom of using the material in the structures of one cultural epoch for buildings of a later period is seen especially in Yucatan, where in all the towns near ruins, the churches, monasteries, and other buildings benefited by the use of worked stones from the ancient remains. This custom is a very old one here, as shown by finding pieces of sculpture embedded in the walls of many of the older buildings. In the case of the wholesale re-use of worked stone in the pavement and low constructions in the Court of the Thousand Columns, described in another place, there seems little doubt but what these date from Chichen IV. In most other cases there are no exact criteria for determining the exact period when the material was re-used. The top story of the Monjas, already mentioned, is certainly post-Maya, but the distinction between use in Chichen II and III is impossible to determine. Some of the sculptured stones re-used in the walls and other construction were noted in Strs. 1D2, 3C6, and 5B18. Columnar blocks and drums often show in their design or diameter that they were not originally placed as found. A notable example of this is in Str. 2C3 where the two square sculptured columns have been replaced with no attempt to restore the blocks according to the design (Seler, 1909). Other examples are in Strs. 2C10, 3C16, and 4B1.

SUBSIDIARY CONSTRUCTION. Altars, "tables," and benches are considered in Chapter III on comparisons of Tula and Chichen.

ARCHITECTURAL SCULPTURE. In the same place there is a discussion of various types of monumental features such as chac mools, standards bearers, serpent columns, balustrades, and the so-called sacrificial stones. It seems safe to assume that some of these features continued to persist from Tula times into the Aztec period and that they may also have remained in use at Chichen after the end of Chichen III.

DESTRUCTION. There seems little doubt but what desecration and actual devastation were perpetrated by the ancient inhabitants. Demolition other than by nature is reported in several places. No attempt is made to record what seems to be intentional injury to sculpture in Classic times, but an excellent example is Lintel 3 at Piedras Negras, from which the heads of the figures have been deliberately broken off.

At Chichen this destruction is especially noted in this third period, followed by "a temporary abandonment of construction."

In regard to the South Annex, part of a late construction at the Caracol, Ruppert (1952, p. 270) writes: "That all the buildings were intentionally torn down is evidenced by the fact that all the walls had been razed to within approximately one meter of the ground and the debris had been removed." An unbroken Plumbate vessel was found in the debris from the fall of part of the outer wall of the Caracol. This seems to show that destruction either by man or by nature began as early as Chichen II. This olla could, of course, have been placed there after the close of the Plumbate period.

In several instances (Strs. 3B4, 3C1, 5B9) figures in the round, especially those of human beings, are found with the heads missing, the result apparently of a deliberate act done in prehispanic times. (See Mason, 1938, p. 308, for vandalism at Piedras Negras.)

Vaillant (1926) considers that the Temple of the Little Heads (Str. 5C3) was intentionally destroyed. "Thus," he writes, "there is some ground for belief that this edifice was constructed in Mexican times and that its violation took place during the re-conquest of Chichen by the Mayas." Could this correspond to the stage here called B?

In connection with excavation at the Temple of the Warriors, Morris (1931, p. 114) writes, "It seems certain that these objects [standard bearers] were hurled from the temple platform by human agency." Again (p. 117), "It may be inferred the Chac Mool [a figure] was thrown down from above at the same time as the standard bearers and the serpent fragments."

The lack of reverence evidenced by the filling in of the Temple of the Chac Mool with broken figures, presumably objects associated with this earlier structure, may be some slight indication of an antipathy by the Toltec builders of the Temple of the Warriors toward the previous regime of the Maya.

END OF MAIN BUILDING ACTIVITIES

This stage of Chichen III (B′ and B″) has been discussed on the basis of the literature and the archæology. The ceramic data, so far as now known, do not permit intercourse between Chichen III, the last of the great periods of major construction here, and Mayapan in its main era of occupation. As this began, according to the early accounts, in a Katun 13 Ahau (1263–83), the end of Chichen III has to be placed at about this time.

CHICHEN IV: PERIOD OF DISSOLUTION (1280–1450)

7. CHICHEN IV LEGEND AND HISTORY

The center of architectural and other activities seems to have moved from Chichen to Mayapan on the founding of that city.

Historical Review

Before considering the history of Chichen IV and Mayapan let us review the historical relationship between Chichen and Mayapan together with the suggestions advanced here. (1) Tula-Toltec Chichen, represented by the Itza, was believed to last from 1000 to 1200. The 200 years of hegemony of the city was usually considered the era of a league between Uxmal, Chichen, and Mayapan. This "League of Mayapan" was brought to an end by Hunac Ceel when Mayapan took over the leadership of northern Yucatan about 1200. (2) The first break in this historical reconstruction came, as has already been pointed out, from the fact that Uxmal is fundamentally a pre-Plumbate site, Chichen a Plumbate one, and Mayapan a post-Plumbate city. (3) Another reason to question the original theory is the fact that the history of Chichen and its Tula-Toltec period seems to be divided archæologically, in both architecture and art, into Chichen II and III. The exact time of the break between II and III cannot actually be determined; it has been placed after the Toltec "abandonment" of the site about 1150. (4) The theory advanced here removes the Itza from Tula-Toltec history (1000–1200) and brings them to Chichen after 1224, with a Kukulcan to dominate part, at least, of the later Mexican period at this site (Chichen III). The time between the arrival of the Itza and the founding of Mayapan may be as long as 60 years or as short as 20 years. (5) There are two fairly definite dates in the Chumayel Prophecies which have to be taken into consideration: that of the founding of Mayapan 1263–83, and that of the placement of the Hunac Ceel episode and the "end" of Chichen in 1451 in the same katun as the "destruction" of Mayapan (1441–60), worked out so successfully by Roys (1954). (6) I originally set Chichen III as running to the "end" of Chichen and of Mayapan. Modern ceramic studies, as we have seen, make it impossible to have a Mayapan existing contemporaneously with Chichen in one of its main periods of architectural activity. Chichen IV is therefore inserted to cover the time between the "founding" of Mayapan and its "end," together with that of Chichen.

As in the discussion of other periods of Chichen, the information supplied by the early accounts will be considered before the more substantial findings of archæology.

The entrance of the Itza and Quetzalcoatl-Kukulcan and some of the innovations of the former have been discussed. The later life of the culture-hero is covered in the history of the "founding" of Mayapan, to be considered presently. Here we are concerned with the gradual deterioration of the Itza as a people, who seem to have suffered moral degradation and various tribulations in this last period of their existence at Chichen.

Unpopularity of the Itza

The Itza were by no means the first foreigners to enter northern Yucatan. The most far-reaching influence from Mexico was felt very specifically at Chichen during the Tula-Toltec period. This *entrada* seems to have been a peaceful one in spite of the Chichen frescoes and the gold plaques found there. In the same way, the Itza penetration seems to have been unaccompanied by strife but, on the other hand, there are no traces of welcome on the part of the native population. There are few opprobrious epithets associated in the early accounts with other foreigners, such as the Xiu, the Ah Canul, or the Cupul. But with the Itza it was far otherwise. They were called "heathen," perhaps quite naturally, for they seem to have been accompanied by a Quetzalcoatl-Kukulcan who introduced new ideas of religion and idolatry. But it is difficult to explain the humiliating terms such as "stupid foreigners," "people without fathers and mothers," "people who are disobedient to their fathers and mothers," "avaricious," "the rogues of the day, and the rascals, Ah Itza."

Their Lewdness

Another type of behavior is also strongly ascribed to the Itza, that of grossness.[49] The "dissolute and unbridled" conduct of the two brothers, already noted, seems to make their actions entirely consistent with the descriptions of the Itza along the same line.

Katun prophecies. These furnish many statements concerning the erotic side of the Itza (Roys, 1933, 1949a, 1954). In the Katun 5 Ahau (1342–62) of the first series of prophecies (Roys, 1954), along with the statement that the power of the Itza was greatly increased and that the local chiefs were unpopular, goes the information that there was adultery and wanton speech; even old men and women were corrupted and the rulers and principal men turned to sorcery and transformed themselves into lynxes.

The "sin" of the Itza appears in another Chumayel prophecy (Roys, 1933, p. 169):

> Their hearts are submerged (in sin). Their hearts are dead in their carnal sins. They are frequent backsliders, the principal ones who spread (sin), Nacxit Xuchit [Quetzalcoatl] in the carnal sin of his companions, the two-day rulers. (They sit) crookedly on their thrones; crookedly in carnal sin. . . . . They are unrestrained lewd ones of the day, the unrestrained lewd ones of the night, the rogues of the world. They twist their necks, they wink their eyes, they slaver at the mouth, at the rulers of the land, lord. Behold, when they come, there is no truth in the word of the foreigners [Itza] to the land. [Again, p. 151:] Then begins the lewdness of the wise men, the beckoning of carnal sin. . . .

Landa (1941, p. 128) speaks of a Naual dance "which is not very decent" and of orgies as the result of compulsory drunkenness in religious rites which lead "to lewdness and license" (p. 316), followed by sermons after the sobering up by the native priests.

The lewdness seems to have been shared by the southern Itza. There is a long rambling record in the Chumayel (Roys, 1933, pp. 82–84) regarding their withdrawal and a lament over the present situation and a longing for "the good old times." We read:

> Then the great Itza went (away) . . . the leading men among them, the heathen Itza. . . . At that time the course of humanity was orderly. The foreigners made it otherwise when they arrived here. They brought shameful things when they came . . . they lost their innocence in the carnal sin of Nacxit Xuchit [Quetzalcoatl], in the carnal sin of his companions. . . . There was no great teacher, no great speaker, no supreme priest, when the change of rulers occurred at their arrival. Lewd were the priests, when they came to be established here by the foreigners.

Later, at the end of this period at Chichen, we shall learn of the erotic significance of the *Plumeria* flower in connection with a love charm, which seems to have played a leading role in the overthrow of Chichen.

On the basis of these practices, it may well be that the type of personality shown by these symptoms gave rise to the opprobrious epithets.

Tribulations of the Itza

In addition to being unpopular, the Itza encountered civil wars, storms, epidemics, and drought.

Drought. Many early accounts refer to their suffering from lack of water. As will be seen later, the pilgrimages to the Sacred Well of the Itza, described by Landa and others, were motivated by the desire to placate the rain gods.

Among the tun prophecies in the Tizimin and Mani manuscripts is a record of a series of difficult times which Roys (1949) thinks was originally written as a prophecy for the 20 tuns of a Katun 5 Ahau. This date may be a 5 Ahau running from 1342 to 1362 (11.7.0.0.0); thus these troubles would come in Chichen IV. "At that time the katun points his finger over the region of the Itza" (p. 173). "In its first katun, its first year, will be the retribution of the Ah Itza" (p. 174).

It is interesting to note the frequent mention of the wells or cenotes, along with the caves which, in most cases, are cenotes without water.

> . . . the time of sound and movement at the wells, at their caves. They go to seek food. They go to roam about by night to beg water, where they may drink water. [In the pain of hunger] would they eat what is left of their bread [p. 166].
>
> The face of the earth shall burn at their wells, the frog shall cry out at midday [p. 166].
>
> In Katun 5 Ahau would be the time when they crouched at their caves. The hills shall burn, the ravine between shall burn. The fire shall flare up at the great *sucte* tree. It shall burn at the sea, on the beach. The squash seeds shall burn, the squash shall burn, the *macal* shall burn. Drenched would be the wax (or copal gum) of the katun of Ichcanzihoo (Merida). There would come to pass the crowding together of the burdens (destinies) of the Ah Itza, for them to receive the misfortunes of their destiny [p. 169].
>
> At that time they go about at their wells, at the caves. . . . They search,crouched on their shins with bowed heads, for water. (It is) their command, because at that time occurred the return of the Ah Itza because of misery, because of thirst [p. 176].
>
> At that time there is thirst, at that time there is hunger. Water shall be lacking, the springs shall dry up in the south country. The roads shall be bloody, the resting places shall be bloody. People shall bewail loudly the great hairy flies at the entrance to the town. . . . They go beneath the trees, beneath the bushes, because of the law of the sun, the command of thirst [p. 175].
>
> The sky shall burn, the earth shall burn. The end of greed. What then might not occur? Drought. So there will be praying to Hunab-Ku ("greatest of the gods"). The ruler shall weep. [There shall be] seven years of drought. The solid rock shall crack. . . . Then they shall return to their wells, to their caves, to get the stored provision of garden stuff. . . . This is [the katun] when they are about to enter to their wells, to their caves again. . . . He shall kill himself on his heap of stones, the occupant of the mat on the dais, the occupant of the throne on the dais. Then would be the end of [all] greed. Then would be the end of robbery. Then they shall return to their caves, to their wells again. Then comes another law, another teaching, according to the word of the great priest Chilam [Balam]. Perhaps so, perhaps not. There shall be seen behind us, before us, the descendants of the children of the Itza, to their great misery, when it shall occur, when they shall be established in the land of Sacnicteil, in the district of Cusamil Mayapan [pp. 172–73].

Similar troubles and accusations are recounted in the Book of Chilam Balam, Series I (Roys, 1954).

In the prophecy for 9 Ahau (1303–22) which is "established" at Uucil-Abnal (Chichen Itza?) we read of wars and conquest:

> Then shall occur terror. War is his food, war is his drink, war is his walk, war is in his heart. Very little he asks of the servants of the mighty men, does Lord 9 Ahau. Lord Nine-day-rule, he sets loose war. He gives himself over to warlike speech to the weak conquered one of his reign [p. 37].
>
> [Corruption, presumably introduced by the Itza, is spread in 7 Ahau all over the land:] In his reign is when occurs the beginning of the fulfillment of the flowering of Ix Bolon-Yol-Nicte, the carnal desire of the plumeria flower. Plumeria bread is the bread of the katun in 7 Ahau. Plumeria water is its water, in which are plunged the halach uinics of the world, in which is plunged the priest, in which is plunged the prophet. Lost are their wits because of the plumeria. No one shall redeem himself from the teaching of his reign. There are fixed their eyes and their hearts. All over the land is excessive adultery. To this they have recourse, all of them. This is their thought by day; this is their thought by night, the sin of the entire day, the sin of the night [p. 38].
>
> [In the same and in the following katun the Itza are mentioned as "greedy for rule"; their power apparently increases.] Laughing shall be their faces in the town, in the district, in the rule, in the reign, of the temporary occupants of the mat, the temporary occupants of the throne, those of the dais mat, those of the dais throne, temporary rulers. Thus it is in their command. They shall make light of the halach uinics of the town, shall those who are greedy for rule.
>
> [In the prophecy for 5 Ahau the local chiefs (batabs) are mentioned with scorn and for the first time the Ah Itza are referred to by name:] Ended is the command of the petty batabs, the batabs of 5 Ahau, the sons of beggars, beggars at heart, who bear nothing in their arms. At the end of their powers are the men, the servants, of Lord 5 Ahau. Lords of a borrowed mat, lords of a borrowed throne, sons of the offspring of good women. Blindfolded, they do not see. They are present, lords of the mat, lords of the throne, where they are seated. They shall be worn out and useless, when there shall be raised the neck of the jaguar, when there shall be raised the neck of the kobob snake, the rattlesnake, at the end of 5 Ahau, at the end of the expulsion of the seed of the Ah Itza, greedy for rule [p. 39].
>
> [3 Ahau brings drought and retribution for their sins to the Itza:] Of little profit are its rains, only useless winds. . . . They shall all be driven out, the rulers of the land on their mats, on their thrones . . . at the turn of the sun, to fulfill his command, at the final agony of the conquerors of the offspring of women and men. Great misery because of them in the years of the reign of greed [p. 40].

It is not necessary to separate the records of Itza events in Chichen III from those following the "founding" of Mayapan in Chichen IV.

The Hunac Ceel episode marking the "end" of Chichen and the destruction of Mayapan came at about the same time and will now be considered.

The Hunac Ceel Episode

According to the Chronicles, this episode occurred in Tun 10 of a Katun 8 Ahau. Discussion as to whether this date is to be placed in 1194 (10.18.10.0.0) or on the next appearance of this tun and katun, about 257 years later, in 1451 (11.11.10.0.0), is postponed for the moment.

The story of Hunac Ceel, who was also called Cauich and Ah Tapay Nok Cauich, has several parts, each of which will be considered, followed, so far as possible, by references to the actual accounts.[50] The event of Hunac Ceel at the Sacred Cenote took place in a Katun 8 Ahau, which is placed at the beginning of Chichen V (1441–60).

His treachery. The first quotation from the Mani Chronicle presents the most complete account of the main event in the life of this chieftain, the capture of Chichen Itza. It also specifies the tun and katun when it occurred, the introduction of Mexican mercenaries, and the actual expulsion of the ruler of Chichen Itza in connection with a wedding feast of the head of Izamal.

Mani account.

In (Katun) 8 Ahau, the *halach-uinic*, or head chief, of Chichen Itza was driven out because of the treachery of Hunac Ceel [*u kebanthan hunac eel*]. And this happened to Chac Xib Chac of Chichen Itza on account of the treachery of Hunac Ceel, the head chief of Mayapan, the fortress. Four score years and ten years; it was in Tun 10 of (Katun) 8 Ahau (1194 or 1451). This was the year [or tun] when he was driven out by Ah Zinteyut (Cinteotl) Chan, Tzuntecum (Tzontecomatl), Taxcal (Taxcalli), Pantemit (Pantemitl), Xucheuet (Xochitl Xochi-ueuet), Itzcuat (Itzcoatl) and Kakaltecat (Calcaltecatl). . . . It was in this same Katun 8 Ahau that they went to drive out Ah Ulmil, the ruler, [*unidentified*] because of the banquet with Ulil, the ruler of Itzmal. It was thirteen folds of katuns, when they were driven out by Hunac Ceel because of the giving of the questionnaire [Brinton, 1892, p. 102; Roys, 1933, p. 177; 1948, p. 38; Tozzer, 1941, p. 268; Barrera Vasquez and Morley, 1949].

1. Mexicans arrive: four lineages. Brinton (1892, p. 129) was the first to point out that several of the names in the above account "have a Nahuatl appearance." In another list of men who came from Mexico (given in the Chumayel, p. 147), we find "These were the four lineages from heaven, the substance of heaven, the moisture of heaven, the head chiefs, the rulers of the land; Zacaal Puc, Hooltun Balam, Hochtun Poot, Ah Mex Cuc Chan." There is a reference (p. 74) to the tribute of Hooltun and we shall find Ah Mex Cuc definitely associated with Hunac Ceel. Zacal Puc was also linked with him.

Landa (1941, p. 32) writes: "The Governor Cocom [possibly Hunac Ceel] began to covet riches and for this reason he arranged with the troops of the garrison, which the kings of Mexico kept at Tabasco and Xicalango, to hand over the city to them. And thus he brought the Mexican people into Mayapan. . . ."

It is interesting to note that Hunac Ceel is not mentioned by Landa, by Gaspar Antonio, or in the tun prophecies. Many of the foreigners were later to be called Cupul, and it was they whom Montejo II found living at Chichen at the time of the conquest.

It was no new thing to find Mexicans entering the country. We have already noted in Chapter I on Maya archæology and in the discussion of the Tula-Toltec period at Chichen, that the archæology—architecture, bas-reliefs, frescoes, and ceramics—tells the story of extensive trade from the north and of actual Mexican intrusions.

Tizimin account. This is a confused story of the reason for the fall of Chichen (Roys uses some emendations from a parallel version in the Mani; Codex Perez, pp. 120–21, 126–27; see also Solis Acala, 1949). From this account and the previous one, one feature seems fairly clear. Ah Ulil Itzmal Ahau, ruler of Izamal, was giving his wedding feast, to which Chac Xib Chac, leader of Chichen, was invited. Hunac Ceel, *halach uinic* of Mayapan and of the Canul, was also a guest. He it was who committed the sin or treachery against his host, Ah Ulil, by offering to Chac Xib Chac, a guest, the *Plumeria* love charm.[51] By smelling it, the Chichen ruler was made to covet Ah Ulil's bride. As a result of this sin, war came and Chac Xib Chac was driven from his city of Chichen.

Montezuma's name and the reference to the Spanish arrival are significant, as will be shown later.

The Tizimin account of the treachery follows:

(Katun) 8 Ahau was when it occurred at Chichen. . . . Then came the trampling on the back of Chac Xib Chac by (or through the agency of) Ah Nacxit Kukulcan.[52] Then came the general questioning of the Ah Itza. Then came purse-snatching strife, overturning-things strife, blowgun strife. Then was when sin was introduced. . . . 8 Ahau also, when it occurred (to) Ah Ulil Itzmal. This, then, was the time he sniffed (at something), when he was deceived, because a sin was committed against Ah Ulil Ahau, against the woman, wife of his (the sinner's?) fellow ruler. . . . There came forth the rattlesnake with Hapai-can. Then Ah Itzmal Ul, the ruler was deceived. Then occurred the giving in tribute the son of mighty (or holy?) Itzmal in order to feed Hapai-can. Then came forth the master of the army (or katun?) when occurred the rule of Izamal, the rule of Ulil Ahau. . . . Miserable is his soul, when he undergoes his misery here at Izamal, deceived by the sin of the ruler of the Canul (*u keban yahau canul*). . . . This was because he gave as tribute his son to Hapai-can. Then when it was learned by Kukulcan, then he was beheaded and he was killed by Ah Kukil Can ("feathered serpent"). . . . Then came forth the rattlesnake at the mouths of the wells here at Maxcanu, at Tuchican. . . .

Chilam Balam of Mani.

Now Katun 11 Ahau [Codex Perez, pp. 126–27] according to its reign (?) was when the foreigners entered our land here, in order to bring us into Christianity. It then began, as they say; but it was 8 Ahau when occurred the entrance of the treachery to them, the holy men (Itza). Now this was the origin of their knowing of the arrival of the time of the dawn to them in the blindness of their lives (their paganism). This was when began the introduction of treachery (*keban than*) to them.

1. *Plumeria* love charm.

They understood the arrival of the time of the opening of the 13-cluster plumeria flower through the agency of Hunac-el, the halach uinic of Mayapan, within the walls. It was he who caused the odor of the plumeria to come forth to his (probably Chac Xib Chac's) nose so he would desire the woman. Now it was because the time drew near and the arrival of the time, the katun, given to them by their great ruler. This was Cetzalcuat (Quetzalcoatl), and Ah Buluc Am ("11 spider") as he was called by their priests and their wise men. This was Montezuma (I) [Roys, 1949b, pp. 48–51].

The most significant event in the life of this ruler of Mayapan, so far as Chichen Itza is concerned, was his willingness to be thrown as an offering into the Cenote of Sacrifice in order to "declare the prophecy." The full account of this is given later.

Hapay Can. In connection with the story of Hunac Ceel, there are several references to a Hapay Can (Sucking Snake). In the Tizimin, we read, "Then came forth the rattlesnake with Hapay Can." This was in connection with the deception practiced on the ruler of Izamal. In a fragmentary account of the Hunac Ceel episode in the Tizimin and Mani manuscripts, we learn from Roys (1933, p. 179) "that the son (or possibly the sons) of 'holy Izamal' was [or were] given in tribute . . . to feed and nourish Hapay Can." His third appearance associates him with Uxmal. After the fall of Chichen, then Hapay Can was brought to Chemchan. He was pierced by an arrow when he arrived at the bloody wall there at Uxmal.[53]

Contemporaries of Hunac Ceel. *Ah Mex Cuc* was represented by Hunac Ceel.[54] In the Chumayel we read:

Ah Kin Coba was their priest there in the fortress (of Mayapan). Zulim Chan was at the west (gate). Nauat was the guardian of the south gate. Couoh was the guardian of the east gate. Ah Ek was his companion. This was their ruler: Ah Tapay Nok Cauich was the name of their head-chief; Hunac Ceel was the representative of Ah Mex Cuc. Then he demanded one complete Plumeria flower. Then he demanded a white mat (symbol of authority) then he demanded a mantle faced on two sides. Then he demanded a green turkey. Then he demanded a mottled snail. Then he demanded the gourds called *homa*. [Once more he appears:] Now the representative of Ah Mex Cuc was declared ruler [Roys, 1933, pp. 69, Note 4; 75].

We have already noted that Ah Mex Cuc Chan was one of the "four lineages from heaven, the rulers of the land." Another was Holtun Balam, the son of Chable of Merida; still another was Hochtun Poot.

Zacal Puc. He is the first mentioned among the four lineages and is worthy of more extended treatment (Roys, 1933, pp. 74, 147). He is associated indirectly with Hunac Ceel, for he appears along with Ah Mex Cuc, who is set down as being represented by Hunac Ceel, the ruler of Mayapan.

In the Homun testimony of 1563 regarding idolatry among the Indians, Çacaalpuc (Zacal Puc) was spoken of as one of the greatest of the lineage gods (Scholes and Adams, 1938, p. 153; Tozzer, 1941, p. 9). He still figures in the Maya prayers of modern *yerbateros* as the first to offer posole to the chacs (Scholes and Roys, 1938, p. 609).

The Valladolid Testimony. This important document in connection with a famous lawsuit at Valladolid in 1618 contains valuable data, said to have come from a Don Juan Kahuil, related to the Cupul family, who obtained "the information from his father who formerly was an *ah kin* or priest among the natives, before they had received the water of baptism." The evidence brought out that Kahuil's ancestors came from Mexico; some settled at Chichen Itza and built "sumptuous edifices," others went to the East Coast. There were three or four lords, who may be connected with the mysterious three brothers, already discussed, who came to rule Chichen. One of them, according to the witness, seems to have been a relative of Montezuma I (1440–69). Zacal Puc, mentioned above, Kahuil's kinsman, chose a Cocom to rule at Chichen and Cozumel and then they went to Sotuta where, later, the Spanish found this family.

A portion of the testimony follows:

The person being questioned answered that he knows the said Don Juan Kahuil. . . . This witness (Don Juan) had full information from his father, who formerly was *ah kin* or priest among the natives before they had received the water of baptism, how the parties above mentioned in the question came from the kingdom of Mexico, and established towns in these provinces and that they were a war-like and valiant people and lords, and thus some of them established themselves at Chichen Itza and others went to the south and established towns at Bacalar, and toward the north and established towns on the coast. [The document continues:] There were three or four lords and one, named Tan u pol chicbul, was a kinsman of Montezuma, King of the Kingdom of Mexico, and that Cuhui kak camal cacalpuc was a very near kinsman of the said Don Juan Kahuil on his father's side . . . all of whom were those who came from Mexico to found towns in these provinces, prominent people and lords; then they founded towns and ruled this land, because, as he said, he heard his said father say that they were regarded, obeyed and respected as lords of this land, and that from one of them proceeded the said Don Juan Kahuil. . . . Some remained in Chichen Itza, who were those who built the sumptuous edifices which are in the said locality; others went to found towns at Bacalar, and others to found towns on the coast to the north; and he who went to found towns on the coast was named Cacalpuc, from whom proceeds the said Don Juan Kahuil . . . and he chose a certain Cocom to rule in Chichen Itza, and they all obeyed him as lord, and those of the island of Cozumel were subject to him; and from there (from Chichen Itza) they passed to the province of Zotuta, where they were when the conquerors came, and they were always regarded, obeyed, and respected as lords.

Another witness, repeating much of the same evidence, adds, "Those who came from Mexico were four kinsmen or relatives with their friends and people they brought with them." As in the first testimony, "one settled at Chichen Itza, another at Bacalar, a third went north on the coast, and the fourth to Cozumel." He duplicated the testimony that one was "a kinsman of Montezuma" (Brinton, 1882, pp. 116–18). From Valladolid, Chichen lay to the west, Bacalar in a southerly direction, Cozumel to the east. This, with the kinsman who went north, seems to follow the pattern of a migration legend of scattering to the four cardinal points.

Time of Hunac Ceel's sacrifice. As already pointed out, until a comparatively short time ago the so-called "League of Mayapan," composed of Uxmal, Chichen Itza, and Mayapan, was commonly considered as having been in existence from about 1000 to 1200, followed by the "fall" of Chichen Itza brought about mainly through the agency of Hunac Ceel, leader at Mayapan. Two factors demanded readjustment of this theory.

The first was Brainerd's ceramic evidence that the supremacy of each of the three cities occurred at different times: Uxmal was a great center before 1000 and there is little evidence of its importance after this time; Chichen had its great Toltec-Maya period from 1000 to 1200; Mayapan did not figure in history until well after 1200.

The second reason for the change in opinion was Roys's brilliant ideas regarding Hunac Ceel. He pointed out the close association of the latter, the "destroyer" of Chichen, with the history of Mayapan and he made (1949, pp. 50–52) the following points, most of which have already been noted in connection with the early accounts but are recapitulated here: (1) Hunac Ceel was a Canul. (2) He was one of the *halach uinics* living at Mayapan (Tizimin). (3) He was connected with the fortress of Mayapan (Chumayel, Roys, 1933, p. 69). (4) The "sin of the ruler Canul" (*u keban yahau canul*) (Tizimin) is the same as the "treachery of Hunac Ceel" (*u kebanthan hunac ceel*) (Mani Chronicle). (5) The 18th-century Maya believed that the treachery was "the instigation of the well-known plumeria love charm." (6) The Hunac Ceel episode had to be placed in a Katun 8 Ahau somewhat near the time which was approaching when the prophets predicted the coming of the Spaniards (Tizimin). (7) "The 'Cetzalcoatl' of Hunac Ceel's time (probably the Ah Nacxit Kukulcan) was associated with a Montezuma, presumably Montezuma the elder," who reigned from 1440 to 1469. There is also a reference to "a kinsman of Montezuma in the Valladolid manuscript of 1618 and also to Zacal Puc who appears in the same list as Ah Mex Cuc" (Chumayel, Roys, 1933, pp. 74,

147) and we have seen that his representative was Hunac Ceel (Chumayel, Roys, 1933, p. 69). (8) The same stolen bride story (Tizimin and Mani Chronicle) turns up in the Peten as told by Fuensalida in 1618. The account that covers this follows: [55]

> Also it is said that the occasion of the flight (to Peten) was this. A great lord or kinglet of that territory was about to be married. During the rejoicing and festivities of the wedding, there came another petty king who was in love with the bride. With armed men he fell upon the people at the feast, who were unsuspecting. After doing them some damage, they (he and his men) carried off the bride. The latter (the bridegroom) was less powerful than the former, and so, seeing that they would make war on him, and fearing the harm to him which would ensue, he was ready to flee. And so, taking with him the bride and many of his own people, he went to those lands so far removed and hidden.

(9) Roys has made the point that he considers the details of the whole story far too definite to place the episode so far back as in Tun 10 of Katun 8 Ahau, coming in 1194. Rather, most of the evidence puts the whole proceedings in the next appearance of Tun 10 of Katun 8 Ahau in 1451.

Two additional pieces of evidence strengthen this theory. (10) We have noted the close association of Hunac Ceel with the ritual at the Cenote of Sacrifice. We shall see that this religious rite for rain at Chichen is a late feature; it is much more likely that the Mayapan chief offered himself in 1451 rather than some 260 years before this. The next date definitely associated with the ritual for rain is 1536, at the unsuccessful attempt of the Xiu to worship here. (11) Finally, as we shall see later, there is good evidence, both archæological and historical, for linking Chichen, Mayapan, and the East Coast. This points to a period late in Maya history, thus favoring the middle of the 15th century for Hunac Ceel and his expulsion of the Itza from their homes.[56]

His sacrifice. Roys (1933, pp. 74–76) gives this account:

> Then began the introduction of tribute to them at Chichen. . . . Then began their reign; then began their rule. Then they began to be served; then those who were to be thrown (into the cenote) arrived; then they began to throw them into the well that their prophecy might be heard by their rulers. Their prophecy did not come. It was Cauich, Hunac Ceel, Cauich was the name of the man there, who put out his head at the opening of the well on the south side. Then he went to take it. Then he came forth to declare the prophecy. Then began the taking of the prophecy. Then began his prophecy. Then they began to declare him ruler. Then he was set in the seat of the rulers by them. Then they began to declare him head-chief. He was not the ruler formerly; that was only the office of Ah Mex Cuc. Now the representative of Ah Mex Cuc was declared ruler. Surrounded by a wall of dry stone was his house. . . . Then, they say, he was sought on his hill. Then they began to take the prophecy of this ruler after it was declared. Then they began to set aloft the house on high for the ruler. Then began the construction of the stairway. Then he was set in the house on high in 13 Ahau, the sixth reign. Then began the hearing of the prophecy, of the news, of the setting up of Ah Mex Cuc, as he was called. Then he carried nearly to Baca the news of Ah Mex Cuc. He was placed there. Then he began to be treated as a lord [or father]; then obedience to the name of Ah Mex Cuc began. Then he was obeyed; then he was served there at the mouth of the well. Chichen Itzam was its name because the Itza went there. Then he removed the stones of the land, the stones of the sowed land, the place of Itzam, and they went into the water. Then began the introduction of misery there at Chichen Itza. Then he went to the east and arrived at the home of Ah Kin Coba. Katun 8 Ahau came. 8 Ahau was the name of the katun when their government occurred. Then there was a change of the katun, and there was a change of rulers. . . . Then they introduced the drought. That which came was a drought, according to their words, when the hoofs (of the animals) burned, when the seashore burned, a sea of misery.

Itza Are Deposed

Thus in the katun ending in 1461, Chichen IV seems to have come to an end. That it continued to have a life of its own after this time seems certain as we know pilgrims came to worship there at the Cenote of Sacrifice at late as 1562. Herrera's account of the human sacrifices at the well (1601–15) are written in the past tense. But the association of cenotes with the chacs or rain gods remains in Yucatan folklore up to the present time.

Chac-xib-chac loses his sign of rank. "Then," according to the Chumayel manuscript (Roys, 1933, p. 67), "Chac-xib-chac was despoiled of his insignia. Zac-xib-chac and Ek Yuuan Chac were also despoiled of their insignia." [57]

Another way of expressing the loss of power is to speak of the mat as symbolic of the throne. This, accompanied by the association of the opossum [58] and the *halach uinic*, is seen in a prophecy for Katun 12 Ahau: "The burrowing opossum shall flee. He shall give up his delegated mat and throne, and he shall go out into the wilderness" (Roys, 1933, p. 197).

The loss of power by the Itza is again shown in the Tizimin where we read, "At the time (of the year) 3 Kan the spots shall be removed from the red jaguars, the white jaguars. The claws and teeth shall be drawn from the jaguars of the Itza" (Roys, 1933, p. 196).

There is an obscure reference which mentions the Itza in the Tizimin tun prophecy: "This is the law in the 18th, when the Ah Itza go about the district to destroy homes. The portrait mask of wax shall go about; but his command comes to an end in the midst of the water. He gives up his office, his waning reign is consumed. Then came the reign of goodness; its new cup is set up, its new mantle, when the wooden mask can be beaten ('damaged')" (Roys, 1949, pp. 175–76).

Finally, in the same work (p. 169), there is an entry, "7 Cauac . . . the day of taking the smut from the great rascal." The same allusion is seen in the Chumayel (Roys, 1933, p. 99): "After that he was despoiled of his insignia and his smut." [59]

"After the Itza were dispersed [from Chakanputun], it was fifteen score years when the foreigners arrived.[60] (It was) after the town of Zaclahtun [Mayapan?] was depopulated, after the town of Kinchil Coba was depopulated, after the town of Chichen Itza was depopulated, after the town on the Uxmal side (of the range of hills), the great town of Uxmal as it is called, was depopulated, as well as Kabah" (Roys, 1933, p. 81).

Before considering the final chapters in the history of Chichen Itza and the Itza during the Period of Dissolution and the conquest, both in Yucatan and in the Peten, it seems well, in spite of repetition, to review the events recorded in the annals of this epoch of Chichen IV in other Yucatecan cities, especially Mayapan, Uxmal in its latest occupation, and Izamal.

8. MAYAPAN

"Foundation" (1263–83)

According to the Chumayel Chronicle II, "Katun 13 Ahau was the katun when they founded the town of Mayapan, the Maya men as they were called." It now seems most likely that

this katun was the one running from 1263 to 1283.[61] This statement is repeated in the Chumayel prophecies. In a katun from 60 to 80 years before the "foundation" of the city there is an obscure entry: "8 Ahau was the katun when the remainder of the Itza founded their town, coming forth from beneath the trees and bushes at Tan-Xuluc-Mul, as it was called. They came out and established the land of Zaclactun Mayapan, as it was called." This is of interest on account of the possible association of the Itza with Mayapan.

In the *Relaciones* (RY, 1:119, 213) there are references to valorous captains of the Itza who were the people who seem to have been among the founders of the city.

Kukulcan II. It seems clear from Landa (1941, p. 23) that this Kukulcan II, arriving at Chichen with the Itza sometime between 1224 and 1244, founded Mayapan between 1263 and 1283:

> This Kukulcan established another city after arranging with the native lords of the country that he and they should live there and that all their affairs and business should be brought there; and for this purpose they chose a very good situation, eight leagues further in the interior than Merida is now, and fifteen or sixteen leagues from the sea. They surrounded it with a very broad stone wall, laid dry, of about an eighth of a league leaving in it only two narrow gates [*sic*]. The wall was not very high and in the center of this enclosure they built their temples, naming the largest, which is like that of Chichen Itza, the name of Kukulcan, and they built another building of a round form, with four doors, entirely different from all the others in that land; as well as a great number of others round about joined together. In this enclosure they built houses for the lords only, dividing all the land among them, giving towns to each one, according to the antiquity of his lineage and his personal value. And Kukulcan gave a name to this city—not his own as the Ah Itzas had done in Chichen Itza, which means "the well of the Itzas" but he called it Mayapan which means "the standard of the Maya," because they called the language of the country *Maya*, and the Indians (say) *'Ichpa,'* which means "within the enclosures."

Cocom

"After the departure of Kukulcan," notes Landa (1941, p. 26), "the nobles agreed in order that the government should endure, that the house of the Cocom should have the chief power; because it was the most ancient or the richest family, or because at this time he who was at the head of it was the man of the greatest worth." Torquemada (6, XXIV) writes, "They say that the kings of Yucatan, who are called Cocoms . . . were descended from him (Quetzalcoatl-Kukulcan)."

Herrera (4, 10, II) tells us, "The lords of Yucatan, believing that they could not be preserved unless one man governed, determined to give the ruling power to the Cocom family who were so rich that they possessed twenty-two good pueblos."

"This city," we learn (RY, 1:254), "conquered all these provinces, for it was very strongly built, walled in like those of ours in Spain, and within the walls there are reckoned to have been more than sixty thousand dwellings [*sic*], not counting the environs. And the king who ruled them was called and bore the name Cotecpan which means in our tongue 'man over every-one.' "

"League of Mayapan"

It is difficult to know just where to discuss this "League of Nations" composed of the Itza of Chichen, the Xiu who were the self-nominated "founders" of Uxmal, and the Cocom of Mayapan. It has been supposed by many to have begun at the time the Xiu "founded" Uxmal, about 1000, with the Itza at Chichen and the Cocom at Mayapan, and that it lasted 200 years, roughly from 1000 to 1200, and was broken up by Mayapan introducing Mexicans to conquer Chichen (Tozzer, 1941, p. 268).[62]

After all the data are reviewed, this League seems to have occupied an unwarranted position in Yucatecan history. The main basis for the belief is an entry in the Mani manuscript: "In Katun 2 Ahau, Ah Cuitok Tutul Xiu founded the town of Uxmal, 2 Ahau, 13 Ahau, 11 Ahau, 9 Ahau, 7 Ahau, 5 Ahau, 3 Ahau, 1 Ahau, 12 Ahau, 10 Ahau. Ten score years, when they ruled with *halach uinics* of Chichen Itza and Mayapan" (Brinton, 1882, p. 102; Roys, 1949b, p. 38).

Brinton (1882, p. 88) seems to have been the first to have given the government of these combined rulers a name, "The League in Mayapan." Around this, as a kind of cornerstone, have been erected many historical theories.

Later it will be pointed out that Uxmal was far more probably "founded," so far as the Xiu were concerned, in a Katun 10 Ahau, not one ending in 928 or 1185 but in 1441. If Uxmal was "founded" somewhere between 1421 and 1441 and Mayapan was destroyed somewhere between 1441 and 1460, the so-called League must have been of short duration, not the 200 years of the Mani account. With great acumen, Roys (1949, p. 21) writes on this event:

> It is very difficult, if not impossible, to reconcile [this historical material] with an often-published belief that there was a league of Mayapan, Uxmal, and Chichen Itza in the 11th and 12th centuries. I do not doubt that such a league really did exist at a much later time. Also, it could have included the three cities in question. But, *if so*, I would suggest that it consisted of the walled city of Mayapan as the dominant member, along with a small but important and aggressive group of Xiu, camping out among the magnificent ruins of Uxmal, and another warlike aggressive group living in post-hegemonic Chichen Itza, which continued to be an important center of pilgrimage, in spite of its loss of military supremacy.[63]

The Tutul Xiu

As we shall see, they came into the peninsula as foreigners [64] from the south and presumably stopped a relatively short time at Uxmal. The account as given by Herrera (4, 10, II; Tozzer, 1941, p. 215; Landa, 1941, pp. 29–37) continues: "And at the end of some years, those of Mayapan, being pleased with their manner of living, sent to invite them to build dwellings for the lords in the site of the city. The Tutulxius, for thus the foreigners were called, in view of this civility went to the city and built . . . submitting to the laws and customs of Mayapan."

Exaggerated importance. In the later discussion of the "foundation" of Uxmal, the expanded position the Xiu occupied in the early historical accounts and Gaspar Antonio Chi's part in all this will be taken up, but these points should also be considered here in connection with the history of Mayapan. Roys writes regarding Gaspar Antonio, as already recorded (Tozzer, 1941, p. 45, note 219), "While extremely well informed, as indeed he should be, he did not hesitate to stretch and distort facts when his personal interests were at stake. We see this from his 1580 *Probanza* and, later, in his 1594 *Probanza*, he resorted to a number of serious misstatements." Roys calls attention especially to the *relación* of Sudzal y Chalante (RY, 1:242, 176) where he speaks of the Tutul Xiu as supreme at

Mayapan, a *"Señor absoluto."* "Fortunately," continues Roys, "Ciudad Real (to me the greatest Maya scholar of the century) states to the contrary."

The truth comes out in Ciudad Real's *relación* on Ponce (1932, p. 354; Tozzer, 1941, p. 36, note 178) where we learn that "the Cocom . . . was a greater lord and more important than he (the Tutul Xiu)."

Another proof of the exaltation of the Xiu is a passage from the Chi *relación* (1582) as given in Tozzer (1941, p. 230):

> These lords of Mayapan held in subjection the entire country and the natives of it were tributary to them during the period when they ruled. The tribute consisted of small sheets of cotton, native hens, honey, cacao and a resin which served as incense in the temples and sacrifices. . . . All the citizens and inhabitants who lived within the enclosure of the city of Mayapan were exempt from tribute, and in it dwelt all the nobles of the land. . . . It was the rule and custom that the said nobles and descendants of the founders of Mayapan and their families served in the temples of the idols and in the ceremonies and festivals and in the wars and as assigned by rule and custom they spent most of the days and nights serving and attending at the temples.

In a *relación* (Jakeman, 1952, p. 31) we read:

> At one time all this land was under one lord, in the time when the lords of Chichen Itza reigned. . . . After a long time, the city of Mayapan was founded, when one whom they called Tutulxiu was absolute lord from whom descended the native lords of the town of Mani; who seized all the land, more by cunning than by war, and gave the laws and designated the ceremonies and rites which it had, and taught letters and decreed their seignories and allotments.

Thus, according to the records, Kukulcan and Tutul Xiu both figure as founders of Mayapan. The same point of view is shown in the *Relación* of Mama (RY, 1:161): "They were subject to a lord named Tutul Xiu, a Mexican name. They say he was a foreigner, from toward the west; and having come to this province, the chiefs of it by common consent raised him to be king, in view of his qualities of valor. And before he came they were subject to the Cocom who was the natural lord of a large part of these provinces before the Tutul Xiu came."

"What is certain," writes Cogolludo (2, I, quoted in Roys, 1949, p. 3), "is that thus the Spaniards found it (Yucatan divided into provinces) when they discovered it; but previously it had been subject to one supreme lord and king, and thus ruled by a monarchial government, until the disloyalty of some vassals caused the division in which it was found; and then all this land was called Mayapan from the name of the principal city, where the king had his court. . . ."

Joint Government of Cocom and Xiu

In spite of the importance of the Xiu as given in the *Relaciones* there are references to the "joint government" and it seems clear that the Xiu shared with the Cocom in the government of Mayapan. We read, "In that *guardianía*, near a mission-town called *Telchac*, a very populous city once existed called *Mayapan* in which (as if it were a court) all the *caciques* and lords of the province of *Maya* resided and there they came with their tribute. Among these were two principal ones, to whom the others acknowledged superiority and vassalage and for whom they had great respect, one was called Cocom and the other Xiu" (Ciudad Real, p. 354). The Maya chiefs were required to dwell at Mayapan; each ruled his respective territory through deputies. It was this joint government of the Xiu and the Cocom, as we shall see, which was one of the causes of the downfall of Mayapan.

Cocom Bring in Mexicans

> While this commonwealth [continues the Herrera account (4, 10, 11) in Tozzer, 1941, p. 216] was living in such great peace the worm of covetousness entered the [Cocom] governor of this peaceful city and, communicating with the governor whom the kings of Mexico had in Tabasco and Xicalango, he brought warriors into Mayapan by means of which he tyrannized over the commonwealth and started to make slaves. But the lord of the Tutul Xiu did not allow it among his people by which he won the love of the country. And by the contact with the Mexicans the natives learned the use of arms, which they had not known until then, in such a way that they became very skillful in shooting arrows and using the lance and the hatchet, with shields and strong jackets of salt [65] and cotton. The lords who introduced the above-mentioned tyranny having died, a proud and restless man succeeded who confirmed the above-said league with the Mexicans of Tabasco and brought a larger number of them into Mayapan with whose aid he tyrannized over the country and made slaves of the poor people.

Xiu Conspiracy

> "And the other lords being unable to bear it, they conspired with the lord of the Tutul Xiu, and going on a day agreed upon to the house of the lord Cocom, they killed him and his sons, except one, who was absent [on account of his trading in the land of Ulua], and they sacked his house and took his cultivated lands. And they abandoned the city" (Tozzer, 1941, p. 216).

This rebellion of the Xiu against their co-rulers, the Cocom, is given by Landa (1941, p. 36) and it comes out in three parallel places in the Chronicles. The Chumayel I account (Roys, 1933, p. 137) is given: "8 Ahau [1441–61] was when there was fighting with stones at Ich-paa Mayapan because of the seizure of the fortress. They broke down the city wall because of the joint government in the city of Mayapan." [66]

Mayapan "Destroyed," "Abandoned" (1441–61)

Events leading up to the "end" of Mayapan have appeared in the foregoing quotations. Continuing with the account, as given by Landa (1941, p. 37), we read: "The quarrels between the Cocom, who said that they had been unjustly expelled, and the Xiu lasted so long, that after they had lived in that city for more than five hundred years, they abandoned it and left it in solitude, each party returning to his own country. According to the computation of the Indians, about one hundred and twenty years have passed since the abandonment of Mayapan."

Writing about 1566, Landa would thus place the end of Mayapan in 1441. Herrera (4, 10, 11) notes that after the fall of Mayapan, seventy years had elapsed before the arrival of the Spaniards in 1519. This would make the date 1449. Either 1441 or 1449 would agree, with one exception, with all the Chronicles which place the "destruction" in a Katun 8 Ahau which runs from about 1441 to 1461. In the Mani we read, Katun "8 Ahau Mayapan was depopulated . . . 2 Ahau. During this year the Spaniards first passed and came to this land, the province of Yucatan, sixty years after the fortress [Mayapan] was depopulated." The Tizimin also states that Mayapan was destroyed in a Katun 8 Ahau. In the Chumayel I (p. 137) we have just read, Katun "8 Ahau was when there was fighting with stones at Ichpaa Mayapan because of the seizure of the fortress. They broke down the city wall because of the joint government in the city of Mayapan." Finally in the Chumayel II we read, Katun "8 Ahau was when their town was abandoned and they were scattered throughout the entire district. In the sixth katun after they were dispersed, then they ceased to be called Maya." This refers, Roys points out, to the time when Merida was founded by Montejo II in 1542. Both Cogolludo, writing in 1656, and Villagutierre (1701) place the end of Mayapan in the same Katun 8 Ahau, although both give the Christian date as 1420, a katun too early.[67]

In the *Relación* of Tekal (RY, 1:176–77) there is a final reference to a Tutul Xiu at Mayapan who "took all the land more by strategy than by war." He was paid tribute "no more than a certain acknowledgment of a hen each and a little maize at the time of harvest, and after his death, and even before it, there were other lords in every province . . . and so at the conquest of these provinces there were already many lords and *caciques*." After the fall of Mayapan "there was no enduring peace in these provinces; but each province had its own *cacique* and lord, and so the conquerors found it."

Some remain behind. After the "end" of Mayapan, about 1450, these Mexicans, writes Landa (1941, p. 39), "chose to remain in Yucatan rather than to return to the lagoons and mosquitoes of Tabasco. And they settled in the province of Canul, which was assigned to them, and there they remained up to the time of the second war of the Spaniards." In their new home, northeast of Campeche, they were accepted as chiefs.

Mayapan seized again? The next quotation raises questions regarding its reliability. In the Mani and Tizimin Chronicles, we learn that Mayapan was depopulated. From various of the *Relaciones* (RY, 1:118, 254) we find that the city was deserted. In Ciudad Real's *Relación* (1932, p. 354) we read: "With the death of the Cocom, the city of Mayapan was abandoned. . . . The other caciques . . . went to their lands, leaving the city of Mayapan uninhabited." In Cogolludo's version of Gaspar Antonio's story, "They razed the city."

And yet with all these references to the end of Mayapan we learn from the Chumayel I (p. 137) that, seemingly, 40 years after the "fall" of Mayapan, in a Katun "4 Ahau (1480–1500) was when the land of Ich-paa ('within the walls') Mayapan was seized by the Itza men who had been separated from their homes because of the people of Izamal and because of the treachery of Hunac Ceel." [68] The Tizimin under the same 4 Ahau records, "The pestilence, the general death, took place in the fortress."

There is some evidence that some of the inhabitants of Mayapan did linger on. We read in the Chumayel (p. 84): "Furthermore they left their descendants here at Tancah [Mayapan]. These then received the misfortunes, after the affliction of these foreigners. These, they say, were the Itzas. Three times it was, they say, that the foreigners arrived."

The first "foreigners" may not have been Itza but those who were the bringers of the Tula-Toltec culture, possibly under Kukulcan I; the second invaders were probably the Itza, under Kukulcan II; the third group were those introduced to bring about the end of Chichen Itza.

In addition to "the descendants" lingering on at Mayapan, we have several references to the "remainder" of the Itza, and to "the remainder of the descendants." Possibly, some of these can be designated as the capturers of Mayapan.

We have just seen that, at the destruction of Mayapan, some of the mercenaries chose to continue to live in Yucatan, and that a pestilence occurred in the city, about 40 years after its "end."

That Mayapan continued to be occupied up to the very end of the 15th century is easier to understand than that the Itza were strong enough to seize Mayapan. Misery, as we shall see, was their lot rather than the role of successful warriors. The "evil times" they suffered are difficult to place chronologically.

Mayapan Archæology

The legendary and historical position of this city, especially in relation to Kukulcan II, has been discussed. The archæology of the site, with its long history, will be briefly reviewed here.[69] There are faint evidences of an Archaic horizon. There seems to have been considerable activity in the Yucatan-Maya period, not shown by buildings still standing, but by stones, sculptured and worked in the style of the Puuc, used in later constructions. The Toltec period of Chichen II and Chichen III are, for the most part, singularly lacking here. Building in the principal group at Mayapan, to judge by present evidence, began after Chichen III had ended.

The ceramic work of Brainerd shows, as we have noted, that Mayapan is considered primarily a post-Plumbate site, the pottery characterized by a Coarse Paste Red ware which is placed in the Late Mexican period. A sherd collection made in 1942 by Brainerd for Carnegie Institution gives evidence that every important period in Maya archæology is represented here, starting from the Archaic down to the Stage of Dissolution. Some periods, however, are better represented than others.

R. E. Smith, on the basis of more extensive excavations carried on by the Carnegie Institution at the site, reaches a similar conclusion and makes the following statement (1955):

> The periods represented at Mayapan in varying proportions are from early to late times: pre-Classic; Classic, which includes Puuc types both early and late plus other Classic types, either local or trade; post-Classic, which comprises Mayapan types both early and late; and recent, presumably dating since the conquest. The post-Classic Mayapan types comprise approximately 90 per cent of all sherds encountered within the walls at Mayapan whereas the Classic period types (mostly Puuc) form less than 2 per cent. Recent Toltec, and Formative types are present, but in very small numbers, and unidentified sherds totaled 9.5 per cent.
>
> Speaking of Toltec types, meaning the pottery characteristic of the major occupation of Chichen Itza during the period of Toltec domination, we refer to such wares as Chichen Medium Slate, Chichen Red, X Fine Orange, and Plumbate. Now with the exception of a few examples of X Fine Orange and a handful of Plumbate sherds, the presence at Mayapan of this ceramic complex is very meager. However, careful analysis of some of the Mayapan Puuc Medium Slates may show that a small percentage belong in the Chichen Medium Slate category. If this should prove to be the case, we shall be able to establish more strongly that there was a settlement at Mayapan during the Toltec period at Chichen Itza.
>
> It is interesting to note that whereas within the walls of Mayapan the post-Classic Mayapan ceramic types were dominant, outside the walls within a 10-km. radius the picture was quite different. Here Classic (mostly Puuc) types formed 49.5 per cent, Formative 9.8 per cent, Mayapan post-Classic 5.1 per cent, recent 3.0 per cent, Toltec 0.3 per cent, and unidentified 32.5 per cent. This seems to indicate that the Classic occupation was not concentrated within the wall of Mayapan. See Table 8.

The following paragraphs on Mayapan archæology were supplied by Miss Proskouriakoff.

Ceramics of the Mayapan period. Stratigraphy at Mayapan reveals definite changes in the complex of pottery types within the span of its late occupation. The earliest deposits laid down in the ceremonial group contain a significant proportion of Black-on-Cream ware, which occurs only in trace amounts in later deposits. In the latest constructions and in surface debris, particularly near shrines and colonnades, there is a very sharp rise in the incidence of large elaborate figure incense burners made of coarse gray paste, unslipped but gaudily painted. Similar incense burners have been reported from the East Coast and fragments are found at Chichen Itza in surface debris suggesting a late re-use of buildings.

These incense burners are probably among the "idols" mentioned by Landa. Although the practice of idolatry is said to have been introduced by Kukulcan II and probably dates from the foundation of Mayapan, the specific form of these incense burners appears late in the history of the city and may have been developed under the influence of the Mexican mercenaries from Tabasco. Among the gods represented is Xipe, the Mexican god of sacrifice. There is also a representation of Quetzalcoatl, distinguished by a shell ornament on his breast, and of at least two Maya gods similar to the gods identified by Schellhas (1904) from the Maya codices as gods B and D.

Several diving gods are represented on smaller incense burners, and a number of effigy vessels and figurines depict other mythological characters. The turtle is a common motif at Mayapan and a number of bowls show this form.

The principal utilitarian wares include Coarse Paste Red, sometimes known as Mayapan Red, and an unslipped lightly striated ware. There is a constant small admixture of a late period type of Fine Orange, probably imported from the west coast or Tabasco; in very late collections a red-on-buff and a red-and-black-on-buff occur in small amounts.

Monumental architecture. The walled area of Mayapan covers about 4 sq. km. and, in addition to the main ceremonial center, contains about 3500 house mounds and several small ritual groups, the most important of which is built around the cenote Itzmal Ch'en, in the northeast part of the site. Many of the larger ceremonial buildings of Mayapan resemble in plan the buildings of Chichen Itza II and III. The outstanding example is the temple-pyramid of Kukulcan which is built on the same general plan as the Castillo. The largest of the four round structures at Mayapan was probably very like the Caracol; Str. Q-58, with serpent columns in the doorway and a deep shaft through the substructure, recalls the Osario or High Priest's Grave. Colonnades are an important feature in both cities. Table 7 summarizes the architectural similarities between Chichen Itza and Mayapan.

The differences are equally striking. Types of buildings that are absent in Mayapan include: ball courts, sweat houses, and gallery-patio structures such as the Mercado. The platform immediately north of the main temple (Str. Q-77) may have been originally a "mausoleum," but it is the only known platform of this kind and was later converted into what may be classed as a small shrine. Shrines and small one-room temples are very numerous at Mayapan and have no close parallel at Chichen Itza with the exception of Str. 5A3, which may be such a building. Very often they are placed on the axis of some larger building—a colonnade or temple, suggesting a subordinate function. Most of these shrines were built late in the history of Mayapan and it is not unlikely that, like the incense burners, they reflect the rising popularity of idolatry, which was not practiced at Chichen Itza until the coming of Kukulcan II.

There is a very sharp contrast between the two cities in the technique of masonry construction and architectural ornament. Veneer masonry was not used at Mayapan, although smoothly faced stones from earlier dismantled buildings were very often incorporated into stairways and plinths. The vault is exceptional and specialized vault stones such as one finds at Chichen Itza occur only as re-used stones. Beam-and-mortar ceilings were most comon, and some ceremonial buildings may have been thatched. Walls were constructed of rough block-and-slab masonry with frequent re-use of better cut stone. They were heavily plastered, and interiors sometimes show remains of polychrome painting. Column drums tend to be lower than at Chichen Itza and the columns have no capitals. Square columns made of blocks were not used. Low-relief carving on columns does not occur, but some columns show the remains of high-relief stucco figures. Only the tails and heads of the "serpent columns" were carved, the head invariably a separate piece from the column. The design was often in whole or in part executed in stucco; the forms vary, the conventional serpent being sometimes modified into some other grotesque form. Banner holders in animal and human form have been noted but there are no chac mool statues. An altar with atlantean figures was found in the principal temple at Itzmal Ch'en.

In general the masonry techniques of Mayapan are more nearly like those of the East Coast sites than like those of Chichen Itza, though some of the minor buildings of the latter site show the same lack of masonry finish and the same re-use of earlier stones.

The colonnades of Mayapan differ from most of those found at Chichen Itza in that they are generally designed as separate units and often have an end room. The benches do not have the sloping backrest usual at Chichen, and the design of the central altar is different. At Mayapan the altar is often enclosed in a small shrine, usually of secondary, later construction; a small shrine is often centrally placed on the stairway.

Residential structures. Ruppert and Smith (1952, 1953, 1954) have made an intensive survey of the house mounds at Mayapan. These usually form groups around a small courtyard, often with a ceremonial platform in the center, and the group is surrounded by a low dry-laid masonry wall. The typical house consists of two parallel rooms and sometimes an end room. The rear room often contains a shrine and may be divided into smaller compartments. The front room has two or more benches and an open façade. In the better houses, a number of which are closely grouped around the ceremonial center, masonry columns were used and the roof was of beam-and-mortar construction, but the ordinary house was largely built of poles and mortar with a thatch roof supported on posts. The masonry walls in such houses did not stand to full height but apparently served as a base for perishable walls. The plans correspond closely to the description of a Maya house given by Landa (1941, p. 86) except that the rear door mentioned by him is seldom found:

> The way they built their houses was to cover them with straw . . . or with palm leaves . . . and then they built a wall in the middle dividing the house lengthwise leaving several doors in the wall into the half which they call the back of the house where they have their beds, and the other half they whitened very nicely with lime. And the lords have their walls painted with great elegance, and this half is for the reception and lodging of their guests. And this room has no doors, but is open the length of the house. . . . They had a little door in the rear for the necessary service. . . .

The wall surrounding the site is described by Shook (1953) and is mentioned in Chapter III. Within the enclosure there are about 20 cenotes, but there is no such clear evidence of a sacrificial cenote as is found at Chichen Itza. R. E. Smith (1952, p. 252) describes a small platform built on the dry floor of Cenote X-Coton, but no major offerings have been found, although deep deposits of pottery have been excavated in various cenotes. A rain-bringing ceremony performed by the modern Indians of Telchaquillo at the cenote Itzmal Ch'en is mentioned by Shook (1952, p. 250).

Sculpture. Low-relief, architectural sculpture such as occurs at Chichen Itza is almost entirely missing at Mayapan. Most architectural ornament is executed in stucco although there are examples of high-relief figure carving with tenons which suggest its use in masonry. Other sculptured forms include stelae with and without inscriptions, sacrificial altars of truncated pyramidal form, small "column" altars with rounded bulbous top, banner holders in the form of human figures or animals, and idols including female figures. The material used is a poor grade of limestone and the carving is of inferior quality. In most cases, it was probably finished with plaster and paint. In addition to the larger sculptures there are a number of small portable figures, among which the turtle is a very prominent motif. These occur in shrines of ceremonial buildings and houses. Although Maya hieroglyphs are very rare in Mayapan, one small figure of this type bears the dates 1 Ahau, 4 Ahau, and 13 Ahau. It is interesting to note that these days correspond to the names of katuns important in Maya history in connection with the founding of Mayapan: the Toltec left Chichen Itza in 1 Ahau; in 4 Ahau Kukulcan II arrived at Chichen; and in 13 Ahau Mayapan was founded (see Table 1). Another inscription reads 10—?, 8 Ahau.

Burials. According to Landa, noble and important personages were cremated while ordinary persons were interred under the houses. "They buried them inside or in the rear of their houses, casting into the grave with them some of their idols, and if he was a priest, some of his books. . . . Usually they abandoned the house and left it deserted after the burials. . . . As for the nobles and persons of high esteem, they burned their bodies and placed their ashes in great urns, and they built temples above them. . . ." There is also mention of hollow pottery and wooden statues used as cremation urns. It is perhaps significant that priests are not necessarily included among "persons of high esteem." There is some evidence of cremation at Mayapan and a conspicuous lack of elaborate tombs or offerings in the ceremonial group. Cists with one or more skeletons have been found in a number of small platforms, and in two of the large temples were deep shafts filled with skeletal remains. These probably represent victims of sacrifice rather than important personages, for almost no grave furniture accompanies the remains. Tombs were often encountered, however, in benches of houses and beneath house floors. Many were empty and apparently never had been used. Others contained burials with modest offerings. The investigation of richer residences revealed no elaborate burials, though well-constructed tombs, robbed of their remains, were sometimes encountered.

Artifacts. Many limestone metates and manos occur in surface debris at Mayapan, and broken metates are often used as stones in house walls. The usual type is the trough-like legless metate, but there are a few imported metates of volcanic stone with three legs and a surface concave in one direction. Other rough limestone tools include hammerstones, pestles, and chipped stone discs possibly used as pot-lids. Whetstones of granite rock, small greenstone celts, and cores of obsidian were probably imported, the latter serving principally for the manufacture of numerous flake blades and "thumbnail" scrapers. The chipped flint industry of Mayapan is distinguished by small artifacts of a hatchet-like form and by tiny arrow points, very rare elsewhere in the Maya area. Jade and other fine stone is present in small quantities and is of indifferent quality. Gold has been found in minute amounts, and copper occurs in the form of bells, rings, and tweezers.

9. UXMAL AND THE XIU

The Three Cities

There has been a tendency to link Uxmal, Chichen, and Mayapan together on account of their common membership in the League of Mayapan. We have tried to show how relatively unimportant this union was and how short a time it existed. Uxmal and Chichen are often associated in much the same way as Copan and Quirigua (in which case, there is a real connection), but this is correct only if Uxmal and the Maya part of Chichen are mentioned together.

Uxmal, a Puuc Site

Archæological evidence shows that Uxmal was an important metropolis, dating from the second half of the Classic stage, about 600. It is an exuberant example of the Yucatan-Maya or Puuc city.

There are two references, both of which might seem to relate to this first period in the history of the site and both can be placed less than a hundred years after 600. In a Chumayel Prophecy, we read "1544 was the year. . . . It was 870 years after the town of Uxmal was depopulated, after the people were driven out of its town" (Roys, 1933, p. 145). This would be in 674. According to Ciudad Real, an Indian told Ponce in 1586, "according to what the ancients had said, it was known that it was more than 900 years since the buildings were built." This would make the year 686.

Xiu History

The relations of these people with Mayapan and the Cocom have just been considered. We now go back to the beginnings of the Xiu and their association with the great site of Uxmal. In much of the early literature they call themselves the "founders" of this city.

The Chilam Balam of Chumayel deals mainly with the Itza; the Mani chronicle is concerned principally with the Tutul Xiu. As with the mythologically inclined history of the early Itza, so here, in the Mani, is an account of the Xiu coming from the land Tulapan, and departing from the house Nonoual in the usual Katun 8 Ahau. Whether Tulapan refers to Tula and Nonoual to Nonoualco, near Xicalango, are matters which have been considered. The placing of the 8 Ahau is impossible to determine. Later we find them arriving at Chacnouitan, dis-

covering Bakhalal, and ruling six score years at Chichen Itza, after which the city was abandoned and they went to live at Chanputun. These references are difficult to explain (Brinton, 1882, pp. 100–01).

It is clear that the Tutul Xiu were foreigners, as were the Itza. Herrera (4, 10, II) tells us that "great companies of people entered from the south from the slopes of the Sierras of Lacandon who, they are sure, were from Chiapas"; later he calls them Tutul Xiu. In several of the records there is a contrast pointed out between the Cocom, said to be "natural lords," and the Xiu, "foreigners."

Landa (1941, pp. 29–31) states they came from the south, probably from Chiapas. "And they say that these tribes wandered around in the uninhabited parts of Yucatan for forty years . . . and that at the end of that time they reached the mountains which lie almost opposite the city of Mayapan and ten leagues from it. And there, they began to settle and to construct very good buildings in many places."

"Foundation" of Uxmal by Ah Zuytok Tutul Xiu. There is no intimation in Landa of the time when the Xiu arrived, but in the Mani Chronicle we read: "In Katun 2 Ahau, Ah Zuytok Tutul Xiu founded Uxmal . . . ten score years they ruled with the governor of Chichen Itza and Mayapan." The second part refers, of course, to the so-called League of Mayapan, already discussed.

In the Tizimin there is another date for the same situation: "Katun 10 Ahau, Ah Zuytok Tutul Xiu founded Uxmal: ten score years had passed when they established the territory of Uxmal."

Probable date of Xiu occupation. Roys has successfully interpreted this reference in the Tizimin as referring, not to a katun ending in 928 or 1185 but to one dated 1421–41 which immediately precedes the 8 Ahau (1441–61) in which Mayapan was destroyed. He fortifies his theory by citing references in the *Relaciones* (RY, 1:200, 176), which do not state when Uxmal was settled by the Xiu, but one implies that the same leader also settled at Mayapan and states that the fall of Mayapan occurred before his death: "After much time, the city of Mayapan was settled, where the absolute lord was . . . Tutul Xiu. . . . And after his death . . . there were other lords in every province."

Archæological evidence. There are a few indications at Uxmal of the presence of a Mexican people, presumably the Xiu, but these are relatively unimportant in relation to the strongly marked Yucatan-Maya character of the site and insignificant in comparison with the great imprint made in Chichen by the Tula-Toltec invasion. These are the remains of a *tzompantli*, a "hieroglyphic" altar, and numerous phalli in stone in the so-called Cementerio. A ball court has a stone ring bearing an inscription, and at least one of the 10 stelae (Stela 14) is pronounced "Toltec." Feathered serpents are on a number of Puuc structures, especially the Monjas. No so-called Toltec structures have been identified at the site and the ceramic evidence for a Mexican period is practically lacking.[70]

Hun Uitzil Chac. In the *relación* of Teabo (RY, 1:287) the name of the first Tutul Xiu of Uxmal is given as Hunuikilchic (Hun Uitzil Chac), "lord of Uxmal, a most ancient city and well renowned for its buildings, a native of Mexico."

In the Tizimin tun prophecies (Roys, 1949, pp. 163, 177) there is a reference to the appearance at Uxmal of the priests of this leader: "8 Muluc on 1 Pop is the sunken stone, when we arrived, I Ah Kauil Ch'el with Napuc Tun and Ah Xupan Nauat, the priests of the great *halach uinic*, Hun-Uitzil-Chac Tutul Xiu at [the *villa* of] Uxmal in the land [the province, the jurisdiction] of Mayapan, Maya Cuzamil. . . ."

In some references Hun Uitzil Chac is listed as one of the four priests. In the Xiu Chronicle he is given in the genealogy as the progenitor of the Xiu. Roys (p. 163) tells us that "the Xiu family tree places him in the fifth generation before the Spanish conquest which would be in the first half of the fifteenth century."

Gaspar Antonio Chi. As we have already seen, there may be an explanation of the claims of "founding" the great site of Uxmal, together with an attempt to aggrandize the role played by the Xiu in the history of the country. The Xiu had a descendant, Gaspar Antonio Chi or Xiu de Herrera, born in 1531 and related to two of those who were murdered by the Cocom in the attempted Xiu pilgrimage to the Sacred Cenote at Chichen. This Gaspar Antonio was an ardent historiographer of his supposed famous lineage. Jakeman (1945, pp. 77–105) has an appendix to his book entitled, "The 'Historical Recollections' of Gaspar Antonio Chi," where he points out that this Chi whose mother was a Xiu appears as having either written or provided the material for at least twelve of the *Relaciones* (RY, 1), many of which have been quoted in this work.[71]

After the destruction of Mayapan, the Xiu settled at Mani which became their capital and this is where the Spaniards found them.

10. IZAMAL

There is a third city whose history is entwined with that of Chichen and Hunac Ceel.

Archæology

Holmes, writing in 1895, says, "Scant justice has been done to Izamal by any of our travellers and explorers, as like ourselves, they had splendid Chichen in view and hurried by, casting hasty glances to the right and left." It is a site which, like Ake and Acanceh, seems to go back to Classic times. There are several pyramidal mounds. Most of the stone facings have been used in building the Spanish towns and the monastery which was erected over and around the ancient structures.

Stephens in 1839 (1843, 2:434) saw the remains of a stucco head over 7 feet wide and 7 feet high on a mound. Charnay (1885, pp. 307–11) many years later found the head gone but saw another, 13 feet high at the base of the same mound. Only a small part of this head remained in 1902 when I visited this site.

Early Accounts

There are several early Spanish accounts [72] of Izamal. A part of that from the *relación* of Izamal (RY, 1:269) follows: "The said settlement of Izamal was populated in very early times, of very great buildings of lime and stone, of vaults and the strongest formation and in the most important of these the said monastery, on which foundation was a structure made by hands."

In other *relaciones* (1581) we read (Jakeman, 1952, p. 30):

> The town of Itzamal . . . was a very ancient city, in which were some ancient buildings with vaults of lime and stone, of a very strong compound. The most principal among the buildings was on a high foundation made by hand, which they ascended by more than one hundred and fifty very steep steps (each step was more than a half *vara* in length). And the building at the top faced the north. And on top [of the building] were three thick walls like towers, of great height, . . . And on the said towers were some figures made of cement, like statues, which appeared to be armed giants, with their shields and helmets. And therefore the natives say that those who built the said edifices were men of greater stature than those of this time. . . .

Destruction

Kak-u-Pacal and Uilu. There seem to have been two downfalls of Izamal. In the Chumayel Prophecies, Series II, we learn that Kak-u-Pacal and Bilu, Itza captains, conquer Izamal and Motul in a Katun 8 Ahau. This was probably the one which came in 1185–1204.

The two famous "valorous Itza captains," evidently before they conquered Izamal, seem to have played a similar role in the south. In the Chumayel III: "In the seventh tun of Katun 8 Ahau, this was the katun when Chakanputun perished at the hands of Kak-u-pacal and Tec Uilu." The time of this event is difficult to understand.

At the time of the conquest, according to Cogolludo (4, VIII), Kak-u-Pacal was deified and worshipped.

"Holy Izamal" we have seen associated with the mysterious Hapay Can which, it has been suggested, may have been an idol at Chichen Itza to which the people of Izamal were sacrificed. "It seems apparent," writes Roys (1933, p. 180) "that in Hunac Ceel's time, Izamal was paying tribute to feed Hapay Can at Chichen."

Government of Kinich Kakmo

In a Katun 8 Ahau there is an entry in a Chumayel Prophecy. This katun is established at Izamal. There is Kinich Kakmo. We read "the first inhabitants (in this government) were Kinich haba (Kinich Kabul), Kinich Kazmo (Kinich Kakmo), Quitahcuitz (Cit Ah Cutz), Quitahcoy (Cit Ah Coyi) from whom descended the Joles (Xols) and Moes (Mos) and Coyes (Coyis), Indians so named in this province." [73] This katun may have been the same one in which Hunac Ceel was the aggressor at Mayapan and at Izamal.

The name of Kinich Kakmo appears in several other places in the early references. In the Chumayel (p. 66) we read in connection with Cozumel: "Kin Pauahtun was their priest. He commanded the numerous army which guarded Ah Hulneb (the archer, a god) at Tantun in Cozumel, also Ah Yax-ac, Chinab, and Kinich Kakmo." [74]

Roys points out that the name was used for a priest in 1542, and possibly the name appeared in every generation. In the Cronica de Yaxkukul is the statement: "1542 was the year when the Spaniards arrived at Chichen Itza. 1542 was the year when they founded the reign. . . . He was called Chun Caan and was the companion of Kinich Kakmo, the priest, and of Tutul Xiu" (Martinez Hernandez, 1926, p. 17).

Hunac Ceel

There was another "destruction" of Izamal in Katun 8 Ahau (1441–60) in connection with Hunac Ceel. The Chumayel III records this but in a previous katun. It reads: "5 Ahau was when the town of the ruler of Izamal (the town of the gods), Kinich Kakmo and Ppapp-hol-Chan, was destroyed by Hunac Ceel." (Emended translation by Roys.)

This leader of Izamal, Ah Ulil, it may be remembered, lost his wife on account of the machination of Hunac Ceel, as related in Chumayel I when the Itza were "separated from their homes" because of the people of Izamal and the treachery of Mayapan's ruler.

Motul

The Itza captain turns up again in connection with the town of Motul in the *relación* of that place (RY, 1:77):

> The first *Señor* of this town of Motul noted that of the natives there was a captain named Sacmutul which means, white man. . . . This one came with people from the east to hunt for a habitation and they did not know from where he came but that he was an Indian. He arrived at the place where this pueblo is situated and he peopled it with his people and there he made it his home and lived and held the lordship, he and his descendants, one hundred and forty years at the end of which time there came against the lord who was then (lord) of the said town of Motul, another lord and captain named Kak u Pacal with men of war; and he killed them and depopulated the town [Roys's emended translation]. And at the end of many years another lord and captain named Nohcabal Pech, a close relative of the great lord of Mayapan, again settled the same town of Motul with people he brought with him; and since then this Nohcabal Pech and his descendants have held the lordship [Tozzer, 1941, p. 24, note 129; Roys, 1949a, p. 7].

11. THE CHEL

The Chel dynasty originated at Izamal. One of the 12 priests of Mayapan, Ah Xupan, who is recorded as the founder of Mani and the ancestor of the Xiu, was a "very wise man." He had one daughter "whom he married to a young nobleman, named Ah Chel." From his father-in-law this young man learned "sciences" and had "letters" tattooed on his arm. With his followers he settled at Tecoh (near Izamal) in the Province now called Ah Kin Chel (Landa, 1941, p. 40).

In Spanish times we learn that Chichen Itza was given by the Chel to the newcomers, to Montejo II, a gift they had no right to make as the site was in Cupul territory. They were generally friendly to the Spaniards. Landa (1941, p. 50) speaks of their priestly character and gives the opinion that they "are not so haughty as the others."

12. CHICHEN AND THE EAST COAST

After examining the close historical connections in this era between Chichen and Mayapan and between Chichen and other centers, we now come to the last of these relationships: that shown in the early records between Chichen and the East Coast of the peninsula. Many of the references cannot be dated. Most of them, however, seem to refer to the period embraced in the stages of Chichen III and IV. The Island of Cozumel figures especially in these early accounts.

In the discussion of the "peopling of Yucatan," the possibility of the "Little Descent" along the east coast of the peninsula has been mentioned. If this theory is accepted, Chichen would have received some of its inhabitants from this source.

Pole, the port of embarkation to the Island of Cozumel, may have been the start of a migration. In the Chumayel (p. 70) we read: "Whereupon they departed and arrived at Ppole, where the remainder of the Itza were increased in number; they took the women of Ppole as their mothers."

The famous Valladolid lawsuit, already noted, speaks of four kinsmen who came with others from Mexico, "one settled at Chichen, another at Bacalar, a third went north on the coast, and the fourth to Cozumel." In this document, probably referring to a later time, "a certain Cocom (was chosen) to rule in Chichen Itza and they all obeyed him as lord and those of the island of Cozumel were subject to him."

Cozumel is mentioned in the Chumayel manuscript in two places where we learn (p. 66) that Kin Pauahtun, the priest, "commanded the numerous army which guarded Ah Hulneb [the Archer, according to Roys, 1933, p. 66] at Tantun in Cozumel" and (p. 168) that "Our lords come, Itza. Our elder brother comes, (Oh) men of Tantun (Cozumel)."

The tun prophecies of the Chilam Balam of Mani mention a Ziyancan Mayalpan. Roys (1949a, p. 12) notes a village of the same name in the Chetumal Bay region in eastern Yucatan and suggests that it may be the walled site of Ichpaatun.

Roys (1948) gives several other references where the Itza and Cozumel are linked together: "We read of a place called Tantun Cuzamil (Chumayel, pp. 66, 145) and in a prophecy translated by Cogolludo (1:164) the Itza are admonished: 'Ya vuestro padre viene, o Ytzalanos. Ya viene vuestro hermano, o Tantunites.' "

In Chapter VII the importance of Cozumel, the East Coast, and Chichen will be discussed. Later we shall learn that Cozumel and Chichen were both places for religious pilgrimages. In Chapter III the archæology of the East Coast will be considered, together with that in the southwest part of the peninsula.

CHICHEN V: PERIOD OF ABANDONMENT (1460–1542) [75]

13. CHICHEN V HISTORY

The main events which brought about the "end" of Chichen and of Mayapan at the hands of Hunac Ceel, and his "sacrifice" in the Sacred Cenote at Chichen, are supposed to have taken place in a Katun 8 Ahau which, beginning in 1441 and ending in 1460, is the first katun assigned to Chichen V. It was in this katun when most of the Itza, as we shall see, went southward.

From the time of the fall of Chichen IV and of Mayapan in a Katun 8 Ahau (1441–60) to the foundation of Merida by the Spaniards in 1542, disintegration set in. Then "they were called Christians" according to Chumayel II. This is far from the truth because, as we shall see, the complete military subjugation of Yucatan did not come until 1546 and that of the Peten until 1696. In the discussion of native customs, we shall see that idolatry was not stamped out even by the Landa's Inquisition and *auto de fe* of 1562, but there seems to be no record of human sacrifice after this date. The folklore of the natives, especially in the country districts, even up to the present, is full of the remnants of ancient beliefs and practices. These we shall consider in our discussions of survivals of the ancient faith.

Evil Times

The Books of Chilam Balam in their chronicles, histories, and prophecies, together with Landa and other early authorities, tell of periods of abundance and of health alternating with those of adversity. There were droughts, which we have seen in the previous epoch; storms and epidemics were added to civil strife. These records of misfortune seem to point mainly to events starting about the middle of the 15th century; the last accounts in the chronicles refer to a hurricane in 1766 and an "epidemic of inflammation here in the town of Chumayel" in 1782.

Civil wars. Directly after the fall of Mayapan, there seems to have been an informal alliance among the Xiu, the Chel, the Pech, and the Cupul. These "good years" did not last. Hardships and quarrels arose. Landa (1941, p. 40) writes:

> Between the three great princely houses, namely the Cocom, the Xiu and the Chel, there were great strifes and enmities, and they exist even today although they have become Christians. The Cocom said to the Xiu that they were foreigners and traitors who had assassinated their natural lord and stolen his domains. The Xiu answered that they were as good as they and of as old a family and as princely; and that they were not traitors but liberators of the country by putting the tyrant to death. The Chel said that he was as good as they in lineage, since he was the grandson of the most esteemed priest of Mayapan; and for himself personally, he was greater than they, since he had been able to make himself as great a lord as they were.

Peace, after a fashion, seems to have been made (Landa, 1941, p. 40):

> These peoples had lived for more than twenty years of abundance and good health, and they multiplied so that the whole land appeared to be but one town. It was then that they built temples in such numbers as are seen today on all sides, and in passing through the forests, there are seen in the midst of the woods the sites of houses and buildings of marvelous construction.[76]

Following these years of plenty came hurricane and pestilence (Landa, 1941, p. 41):

> After this epidemic had ceased, they had sixteen other good years, during which passions and quarrels rose again, so that 150,000 men died in battle, and after the slaughter they quieted down and made peace and rested for twenty years, after which a pestilence seized them. . . . It must be more than fifty years since this last plague occurred.

[The Chumayel (p. 78) says of unrest in the country:] But even when everything shall be thoroughly explained, perhaps not so much is written about it, nor has very much been written of the guilt of their conspiracies with one another. So it was with the ruler of the Itza, with the men (who were rulers) of Izamal, Ake, Uxmal, Ichcanziho [Merida] (and) Citab Couoh also. Very many were the head-chiefs and many a conspiracy they made with one another.

Hurricanes. Both Landa (1941, p. 40) and Herrera (4, 10, III, in Tozzer, 1941, p. 216) tell of a great storm which visited Yucatan. The Bishop's account follows:

> But after this prosperity [for more than twenty years], during a winter's night [ca. 1464], about six o'clock in the evening, there arose a wind, which kept increasing and soon changed into a hurricane of four winds. This wind overthrew all the large trees causing a great destruction of every kind of game; and it destroyed also all the tall houses which, since they were covered with straw and contained fire on account of the cold, were set on fire, and they burned up a large part of the people. If any escaped, they were crippled by the blows which they received from the (flying) wood. This hurricane lasted till the next day at noon. . . .

A much later storm, possibly around 1560, is referred to several times in the testimony offered in their trial for idolatry in 1562.

We read of a sacrifice made about a year before the "time of a great hurricane" and there is a record of an exhortation to return to the ancient religion: "Behold, brother, a great storm is coming and it is fitting, in order that we may not be lost, that we return to do that which our ancesors were accustomed to do, which was to sacrifice and worship the idols and for this is it well that the two boys which we have should die." (See also Scholes and Adams, 1938, pp. 94, 95, 98, 102.)

In one of the tun prophecies (Roys, 1949, p. 174) we read: "The black spots of the red jaguar, the white jaguar, shall be removed. Their claws shall be drawn; the teeth shall be drawn of the jaguars of the Ah Itza. There shall be none. At that time there is a great rainstorm, a great windstorm." [77]

Drought. The most important ritual for rain performed by the Maya was that carried out at the Cenote of Sacrifice at Chichen and described at length in Chapter VI. The attempted pilgrimage to the Chichen well by the Xiu in 1536 as a result of a drought will also be discussed. There are rituals in the months Chen or Yax in honor of the chacs as rain gods (see Tozzer, 1941, pp. 327–88, for other rain rituals).

Quotations from the tun prophecies of the Tizimin and Mani, which are tentatively dated as coming in the previous period, regarding droughts and suffering have been given.

A katun prophecy from the Chumayel manuscript says: "There are rains of little profit, rains from a rabbit sky, rains from a parched sky, rains from a woodpecker sky, high rains, rains from a vulture sky, crested rains, deer rains. . . . There is a year of locusts [p. 154]. There was death by famine for five years, 1650, 1651, 1652, 1653 and 1654. Then the famine ended [p. 120]."

Pestilence. Two records of infections seem to be datable to just before and to about the time of the Spanish arrival.

Maya cimil. The Chumayel I and the Tizimin tell us that a Katun 4 Ahau (1480–1500) "was when the pestilence *(maya cimil* or *cimlal,* "Maya death") occurred; it was when the vultures entered the houses within the fortress (Mayapan)." The Chumayel III states that the trouble occurred in Tun 5 of Katun 4 Ahau (about 1485). In the Katun Prophecies (II) of Chumayel (p. 133), there is a statement, "Blood vomit [*xe kik*] is the charge (of the katun)." This seems to be the same malady as *maya cimil.*[78]

In the Tizimin prophecies we read (Roys, 1949):

> Kinich-Chaante had come forth, Kinich, as they say Buluc-Ch'abtan. He will have gone, that his lineage might shine over the foreigners of the land, of the crested waves of hills. . . . At that time there is sudden death; things are thrown down, that which is established is overthrown. There is blood vomit. . . . In Katun 5 Ahau its year would be. In its first katun, its first year, will be the retribution of the Ah Itza [p.174].
>
> Later it would be over Mayapan, it would come to pass in Maya Cuzamil, the establishing of their lineage (there) at the wells, at their caves. Then there will be the deer epidemic, the pestilence [*maya cimlal*] among men. Then there will be the flies, the maggots, at the time of the end of the katuns, the fold of one katun [p. 177].

This is probably the same disease as that described by Landa (1941, pp. 41–42). "And when they were about to begin to harvest their fruits, there occurred all over the country pestilential fevers, which lasted twenty-four hours. After these had ceased, the bodies of the sick swelled up and broke out full of worms; and from this pestilence very many people died and a great part of the fruits of the earth was left unpicked." Following this they had "sixteen other good years, during which passions and quarrels rose again." Peace for 20 years was followed by a second pestilence, "characterized by great pustules, which rotted their bodies with a great stench, so that the limbs fell to pieces in four or five days." In the tun prophecies of the Tizimin and in other places the same disease is mentioned.

Smallpox. In the Chumayel I and also in the Tizimin, after the entry for the Katun 4 Ahau, just given, there immediately follows: "Katun 2 Ahau (1500–20) was when the eruptions of pustules occurred." It was smallpox (*noh kakile,* "great fire").[79]

Other tribulations. The first quotation from the Tizimin tun prophecies (Roys, 1949, p. 173), referring presumably to the "end" of the Itza, runs as follows:

> (They are) impudent to their mothers, insolent to their fathers; vigorous youth. Lost are the remainder of the *halach uinics;* there are no new ones. There shall be no new red shell beads. They are lost when Chac-Uayab-Xoc takes them. At that time there is much misery, general death and misfortune. No one will be to our advantage, at the time of this spectacle; in its katun it would be. There will be no remainder of the descendants of the Ah Itza; neither in the north nor in the west shall they encounter one another. The beasts of prey of the hills shall be bitten. In the 14th tun would come to pass, the misery of the day, the misery of the katun. The *xulab* ants shall descend, the *chac-uayab-cab* ants shall descend, to break into their wells, into their caves.

Most of the quotations show that adversity came not only to those who were left behind in the southward trek of the main body of the people but also those who were on their way or had already arrived in Peten.

In the Chumayel III, we have read that in Katun 8 Ahau the "remainder of the Itza founded their town, coming forth from beneath the trees and bushes at Tan Xuluc Mul." The same locality seem to be shown in the following prophecies from the Tizimin (Roys, 1949):

> During this time the Itza prepare one another in the heart of the forest, among the bushes, when the soul of Siyahtun-Chac cries out. At that time it is a katun of misery here; its misery would be because of misfortune that they may be made to undergo, the children (of the Itza) and the descendants of the day, the descendants of the night [p. 172].
>
> At that time there was commotion at their wells, at their caves, because thus it occurred to the Ah Itza, when they departed because of misfortune, when they left their wells and caves, at the time they went forth into the land of trees, into the land of rocks [p. 168].
>
> Then shall descend Kinchil, Ah Chac-Chibal; nor would be the arrival of the time for the great misery of the Ah Itza, the remainder of their descendants here in the Province of Mayapan. Then he fulfills its termination at its time [p. 171].
>
> During this time, shall be extinguished the fire of the descendants of the Itza. 3 folds of the katun, it would be [p. 169].
>
> At that time there are heaped dry leaves over you. You have no breechcloths, no mantles, nothing is there belonging to your representative, your temporary home [p. 169].
>
> Taken (or created), in its time, shall be taken (or created) the law of the land all around, of the rogues of the day, the rascal Ah Itza. At that time there is miserable poverty; at that time there are the enfeebled ones; there is seizure by force [p. 169].

The Itza

Chichen Itza and Valladolid (Saci) were two of the important centers of the Cupul province. Roys (1939, p. 60) writes that, "in view of the fact that down to less than a century before the Conquest, the southern Cupul area had been for nearly five hundred years economically, and much of the time politically, subject to the great Toltec-Maya shrine city of Chichen Itza,

the requisite conditions must have existed for the development of an urban and a peasant population living in the same area." [80]

In the later preconquest literature, outside the prophecies, the name Itza is seldom mentioned. After the fall of Chichen and of Mayapan, these people seem to have lost much of their individuality. We have seen in the tun prophecies that their name appeared but was always associated with misery and trouble. These accounts refer to this period of decay. It seems probable that when their name is used, it is in reference to "the remainder of the Itza," "the descendants of the Itza," or the "remainder of the descendants of the Itza." Marking the end of some of them, we read: "There shall be no remainder." "The fire will be extinguished."

It is clear that they were cordially disliked, witness some of the many opprobrious epithets already given. Their lewdness, associated with their Mexican heritage, was another cause of their ostracism.

After 1450 they seem to have divided: one part "went into the heart of the forest" to Tan Xuluc Mul; some of the "remainder," at least, apparently decided to stay behind in Yucatan. As already suggested, if the passages in the Chumayel I and the Tizimin for Katun 4 Ahau are accepted, it is this "remainder" who may have achieved military success at Mayapan about 1500. Otherwise, the Itza seem to have lost all importance and recognition in the north in this Period of Abandonment.

In the Chumayel (p. 84) we read: "Furthermore they left their descendants here at Tancah (Mayapan). These men then received the misfortunes after the affliction of these foreigners. These, they say, were the Itza." These adversities at the hand of Nature and of man have just been discussed.

THE ITZA IN THE SOUTH. Fray Avendaño, in his famous trek into the Peten in 1696, describes (Means, 1917, p. 128) the place mentioned in the chronicle:

> Having come there to this pond of Tan xuluc mul an hour before sunset, we had to observe and wonder with pleasure and delight, since the water which we found was very fine and good. We found the hut already made, since undoubtedly the Ytzaes kept up that place either for occupation from time to time or as a permanent dwelling, for there are very many of them in those places. We had to observe and wonder on some rocks or buildings on some high places, so high that they were almost lost to sight. And when we caught sight of them clearly, the sun shining on them in full, we took pleasure in seeing them; and we wondered at their height, since, without exaggeration, it seemed impossible that work could have been done by hand, unless it was with the aid of the devil, whom they say they adore there in the form of a noted idol.

Cortés, in his famous Fifth Letter (1908, 2:269–75), describes the Itza in their island stronghold at Lake Peten in 1525.

There are several interesting glimpses of their life in the south.[81]

> These Indians, the Itza, are of Yucatecan descent and originally from this land of Yucatan; and so they speak the same language as they (the Yucatecans) do. It is said that they left the territory and jurisdiction which is today that of the Villa de Valladolid, and of the town of Chichen Itza, where there remain today some of the great ancient buildings to be seen in this land, which were so much to be wondered at, when those kingdoms were discovered. . . . With them also departed others from neighboring towns. Father Fuensalida states that 100 years before the Spaniards came to these realms, they fled from Yucatan in the age they call the eighth, in their language, Uaxac Ahau, and they settled those lands where they live today. Their flight to the island (of Peten) and such hidden localities was because they knew from the prophecies which they had . . . that there would come from the East people of a nation that was to dominate this land. Those whom they call priests preserve to this day the prophecies in a book like a history which they call *analte*. In it they preserve the memory of whatsoever has happened to them since they settled in those lands. They say also that they went to the latter by sea, and toward that part where it comes out toward the lake. [Cogolludo, 9, XIV, in Roys, 1949b, p. 47.]
>
> It is now many years that the barbarous Itzaex, more than any other nation of infidels, have been terrifying all those provinces. For, since the time when D. Fernando Cortés passed through their land . . . no further attempts had been made to bring about their reduction or to make war upon them to subjugate them, and this was on account of the prohibition given by the King (of Spain) in *Cedulas* and orders.
>
> They had increased in numbers, pride, cruelty and power, making war upon and capturing and eating others of the gentile nations who dwelt in those mountains and forests, and also infesting, by their raids, the reduced and quiet villages on the confines of their lands, and especially those of the Province of Yucatan, destroying them, and causing the Indians and Spaniards great agitation.
>
> They trusted in the great fortress and the great security they had in their lake and especially at the city or great village of Tayasal which was situated on the Peten or island in the lake, because of which nothing molested them nor was it possible even to pass near their confines. [Villagutierre, 2, I, in Means, 1917, p. 55.]
>
> [In 1618, the Itza ruler Canek told two of the friars, in their attempt to Christianize the natives,] that the time has not yet arrived in which their ancient priests had prophesied that they should leave off the adoration of their gods because the age (katun) in which they were at present was that which they call 3 Ahau (which is to say third age) and that there had not yet arrived what was appointed for them. [Cogolludo, 9, X; Villagutierre, 2, V; Means, 1917, p. 72.]

THE CUPUL

Whereas in the south the Itza maintained their independence and much of their old mode of life until the very end of the 17th century, those of this lineage in the north seem to have suffered an eclipse. We have seen them through evil times but nowhere do we find references to them as occupying any positions of importance.

The Cupul, on the other hand, seem to have taken their place. We find them in an informal alliance with the Xiu, Chel, and Pech lineages. At the time of the conquest we see them, with their leader Naobon Cupul, living at Chichen. Their resistance to the Spaniards was consistent from the first.

In 1546 the Cupul of Valladolid, aided by those from the Tazes, Cochua, and Chauaca provinces, staged a revolt against the whites. Another reference to their war-like attitude is in the *relación* on Ponce: "The Indians of that *guardianía* (Tizimin) and those of Valladolid are called 'Cupules,' a very brave people who, at the time of the conquest, defended themselves many days against the Spaniards and, even being conquered, they rebelled."

Their opposition also to Christianity comes out in some of the testimony at the famous idolatry trial in 1562. They furnished victims for human sacrifice and both "brought" and "bought" Cupul boys for sacrifice (Tozzer, 1941, p. 275).

SPANISH CONQUEST OF YUCATAN (1527–46)

In the previous section we have seen a succession of evil times and the practical elimination of the Itza from the northern part of the peninsula.

NATIVE SITUATION. *Ancient sites.* All architectural activity seems to have long ceased and, for the most part, the great centers seem to have been abandoned. Many of the fortified sites in the highlands of Guatemala, however, remained occupied. In Yucatan some of the cities on the eastern shore of the peninsula were undoubtedly inhabited at the time of the conquest, together with some sites in the southwest part of the present states of Campeche and Tabasco. Chichen Itza, as we shall see, was kept alive by the pilgrimages to its famous well. Cozumel was also an important religious center.

Cacicazgos. After Mayapan fell and the Cocom family lost its position of supremacy, the individual *cacicazgos* (or native states) of Yucatan became more important. "At the time of the Conquest," writes Roys (1943, p. 41), "the Maya-speaking portion of the peninsula was divided into approximately eighteen territorial divisions, most of which might be designated as independent states. . . . Some . . . possessed a well-organized political system headed by a single ruler; still others were more or less closely knit confederacies of towns or groups of towns." Along the coast, from the southwest, these were: Chakanputun (Champoton), Canpech (Campeche), Ah Canul (Calkini), Ceh Pech, Ah Kin Chel, Chikinchel (Chauaca), Ecab, Cozumel (Cuzamil), and Uaymil-Chetumal. Behind these were Chakan, Hocaba-Homun, Xiu-Mani, Sotuta-Cocom, Cochuah, Cupul, Tazes, and, far to the south, Cehache and Tayasal or Tah Itza (Roys, 1943, p. 6; Tozzer, 1941, p. 244 and map; Chamberlain, 1953).

Population. The density is noted by Landa, already quoted. In the *relación* of Can-sah-cab (RY, 1:196–97) we learn:

> This land appears to have been well populated, because throughout it there is not a palm of land which has not been cultivated and occupied by large and medium buildings of stone and vaulted houses, very well built. [Some reported that the natives were descended] from those who made the said edifices. Others said that those who built the ruins were foreigners who settled in the land and that the natives put an end to them and killed them. And both (natives and foreigners) were heathen and were buried under great hills which they made of stone and under pyramids and edifices that they made for them.

In commenting on this passage, Roys (1949b, p. 18) writes:

> The above statement implying that all, or most, of the foreigners in northern Yucatan were killed or driven out prior to the Spanish conquest can not be reconciled with conditions found by the Spaniards. There were still in the country ruling families of foreign origin, such as the Ah Canul, Cocom, Xiu, Iuit, Cupul, and I suspect the same was true of others [Roys, 1933, App. E]. Besides these there are quite a number of Nahuatl lineage names. I have traced some of them (Cetzal, Culua, Iuit, Nauat, Ueuet, Chimal, Miz, and Xiu) [Roys, 1940, p. 36] and have detected others since.

Government. Cogolludo (4, III) tells us of the situation at the time of the conquest.

> This king (of the Tutul Xiu) had as the capital of his kingdom a very populous city called *Mayapan* (of which one can derive the name of this land, *Maya*). On account of wars and discords between him and his vassals, force being the sole arbitrament . . . caused the end of his reign. Many chiefs and *caciques* rebelled against him, each one dominating that part which he was able to keep and always in continuous warfare as the Spaniards found them (divided) into states as of dukes and earls without a superior power when (the Spaniards) discovered these kingdoms.

The situation is well shown in the *relación* of Tekal (RY, 1:176–77): "And so at the conquest of these provinces, there were already many lords and *caciques*. In every province there were lords, because after the destruction of Mayapan . . . there was no enduring peace in these provinces; but each province had its *cacique* and lord. And so the conquerors found it."

Towns. As usual, we can depend on Landa (1941, pp. 62–64) for the general situation in precolonial times:

> Before the Spaniards had conquered that country, the natives lived together in towns in a very civilized fashion. They kept the town well cleared and free from weeds, and planted very good trees. . . . Their dwelling place was as follows:—in the middle of the town were their temples with beautiful plazas, and all around the temples stood the houses of the lords and the priests, and then (those of) the most important people. Thus came the houses of the richest and of those who were held in the highest estimation nearest to these, and at the outskirts of the town were the houses of the lower class. And the wells, if there were but few of them, were near the houses of the lords; and they had their improved lands planted with wine trees and they sowed cotton, pepper and maize, and they lived thus close together for fear of their enemies, who took them captive, and it was owing to the wars of the Spaniards that they scattered in the woods.

Houses. The Bishop also supplies us with a description of the domestic architecture (see Chapter III-3).

NATIVE REACTIONS TO THE CONQUEST. At the time of the conquest, the Xiu of Mani, the Ah Canul both of Mexican origin, the Ah Kin Chel, the Pech, and those of Ecab were among those who accepted the Spanish *entrada* with only slight opposition. This attitude was in contrast to that shown by the Cocom of Sotuta, the Cupul at Chichen Itza, and those of Cochua who were among the relatively few people who steadily resisted the Spanish domination. In the *relación* on Ponce, we read, "The Indians of that *guardiana* (Tizimin) and those of Valladolid are called 'Cupules,' a very brave people who at the time of the Conquest defended themselves many days against the Spaniards and, even being conquered, they rebelled." (See Tozzer, 1941, pp. 266–75, for extended discussion of these people.)

It should be noted that whatever language was spoken by those whose ancestors came from Mexico, at the time of the Spanish conquest Maya was the universal tongue of Yucatan. Other languages, principally Nahuatl, persisted only in a few proper names.[82]

"PROPHECIES" OF THE NEW RELIGION

In the early chronicles, the *relaciones*, and other places, there are several references which were at one time thought to foretell the coming of the Spaniards. Let us look at one, the *relación* of Merida, 1579 (RY, 1:44–45):

> There were some provinces which never waged war but received the Spaniards peacefully, especially the province of Tutulxiu . . . where there lived a few years before the Spaniards came to conquer this country an important Indian, who was a priest, called Chilan Balam, whom they considered a great prophet and soothsayer. And he told them that, within a short time, a white and bearded race would come from where the sun rises and that they would bear on high a sign like this ✣ which their gods could not approach and

before which they would flee and that this people would rule the land . . . and that the natives of the country would abandon their idols and worship a single God whom they (the Spaniards) worshipped and would preach, and they would pay tribute to them.

It has already been shown, in the discussion of Quetzalcoatl, that these prophecies relate to his return, not to the arrival of the Spaniards (Tozzer, 1941, pp. 42–43).

In the Chumayel (p. 119) there is another reference to the prophet: "This is the name of the year when the foreigners arrived, the year one thousand five hundred and nineteen. This was the year when the foreigners arrived here in our town, (the town) of us, the Itza, in the land of Yucalpeten, Yucatan, in the speech of the Maya Itza. . . . It was known by the priest, the prophet, Ah Xupan, as he was called."

The reply of the Canek to Fuensalida in Peten, that the time prophesied by their priests for them to change their religion had not arrived, has already been mentioned.

Chichen Itza and the Conquest (1532–33)

The subjection of Yucatan by the Spaniards centers around the three Montejos, father, son, and nephew, all called Francisco. Montejo I, who had accompanied both Grijalva and Cortés on their expeditions, was appointed *Adelantado* of Yucatan, receiving in 1526 his *capitulación*. The conquest of the peninsula began the next year and was not completed for almost two decades, in 1546. (See Chamberlain, 1948a, 1948b, 1953; Tozzer, 1941, p. 252.)

The first phase of the first campaign, 1527–28, accomplished very little. The second phase lasted from 1531 until 1535. It was in this period that the Adelantado decided to undertake the conquest of the northern provinces of Yucatan.

Montejo II given leadership. Remaining in Campeche, he appointed his son Lieutenant Governor and *Capitán General*. In 1532, the latter came up from Tabasco, and looked for a site of strategic importance to found the principal municipality of Yucatan. Landa writes (1941, pp. 50–51): "The Adelantado tried to find out which was the largest settlement, and he learned that it was the town of Tecoh, of which the Chel were lords. . . . The Chel . . . , on account of their priestly character, which they continue to hold today, are not so haughty as the others. This is the reason that they gave permission to the Adelantado to build a town for his followers and, for this purpose, they gave him the site of Chichen Itza, seven leagues from there. . . ." There are two misstatements here. It was the son who was the founder of the post at Chichen; and the Chel had no authority to give anyone "the site of Chichen Itza" as this was in the territory of the Cupul, who offered ineffectual resistance to the entrance of the Spaniards into their part of the country.

Chichen chosen as headquarters. Montejo II selected a thickly populated and fertile region which was strategically situated with a good water supply, buildings which could be converted into fortresses, and a plentiful supply of cut stone. Chamberlain adds that another reason for the selection of Chichen was to foster the belief in the anticipated return of Kukulcan.

"In this way," continues Landa (1941, p. 51), "the Adelantado [really Montejo II] asked for workmen to build (houses) at Chichen Itza, and in a short time he constructed a town, making the houses of wood and the covering of a kind of palm, and of long straw, according to the Indian usage." This town, founded in 1533, was named Ciudad Real.

It has generally been taken for granted that Chichen was unoccupied at the time of the conquest, but in a passage from a *relación*, presently to be quoted, we learn that a chief of the Cupul, Naobon Cupul, lived at Chichen and received the Spaniards. If the site had been abandoned, it is difficult to understand the necessity of "building houses" here as many of the stone structures, even to this day, would provide ample accommodation for a large number of people.

According to the *capitulación*, Montejo I was obliged to erect two forts in Yucatan. One of these was in Tihoo, the present Merida, and the tradition is that Montejo II made the Castillo at Chichen his second fortress by mounting a gun in the western corridor of the temple after making a breach in the wall through which to point the cannon. This hole was visible until a few years ago, when the Mexican government restored the entire structure.

Resistance of the Cupul. The leader of the Cupul, the *Nacom* or war-captain, reluctantly received Don Francisco Montejo but he upheld his dignity in the following speech, according to the Pech Manuscript (§4): "There is a King, lords, they said. There is King Cocom, Naum Pech, King Pech, Namox Chel, the King Chel of Dzidzantun. Foreign armies, foreign soldiers, here (were) the Itzas." Roys thinks this really means, "There is no king here. There are Cocom, Pech and Chel kings, but these great buildings are only those where the Itzas once were." This was Naobon Cupul, who is referred to in a *relación* (RY, 2:150): "In the time of their heathendom, before the Spaniards conquered them, they paid tribute and obeyed a lord whom they called Naobon Cupul and this man lived at Chichen Itza."

The *encomienda* system was started about this time. The Adelantado (probably meaning Don Francisco), writes Landa (1941, p. 51), "counted the population which was large, and divided the towns among the Spaniards." Herrera (4, 7, IV), also mistaking the two Montejos, writes, "The Adelantado Montejo . . . determined to count the population and to divide them who were numerous. The encomenderos who obtained the smallest number had from two to three thousand Indians."

The true state of the feelings of the Cupul was not realized by the Spaniards. The encomienda system added fuel to the fire of their resentment. Six months after the establishment of Ciudad Real at Chichen Itza, Nacom Cupul attempted to kill Don Francisco but died himself.

This death increased the animosity of the natives. They refused to pay tribute and to render services. Finally, in the middle of the year 1533, the Cupul, aided by the cacicazgos of Ecab, Sotuta, and Cochuah, blockaded Chichen; the Pech, Chel, and Xiu remained faithful to the Spaniards.

Spaniards escape. The end of the first Spanish occupation, with the ruse of the dog and the bell, is described by Landa (1941, p. 52):

> But the Indians grew stronger every day; so that provisions began to fail them (the Spaniards), and at last they abandoned the town one night, leaving a dog attached to the tongue of the bell, with a little bread at such a distance that he would not be able to reach it; and the day before they wearied the Indians with skirmishes, so that they should not follow them. The dog rang the bell, in order to reach the bread, which greatly astonished the Indians, as they imagined that the Spaniards wished to make an attack upon them, and after they learned what had taken place they were very much ashamed at the trick that had been played them, and they resolved to go after the Spaniards from all sides, as they did not know what path they had taken. And those who had taken that road caught up with the Spaniards, and fell upon them with loud cries as if they were running away, but six horsemen awaited them in a plain and wounded a great number of them with blows of their lances.[83]

Conquest abandoned (1535–40). After this setback Don Francisco and his soldiers joined the Adelantado in the north, after which they returned to Campeche. A decision was made to abandon Yucatan and both father and son departed for Mexico, thus ending in 1535 the first attempts to conquer the country.

Arrival of the first Franciscans. It was in this period between the first and second attempts at conquest that the first Franciscans arrived.[84] In 1535, Testera and four assistants came to Yucatan. They were the first ecclesiastics to remain for any length of time in the country. Among those who followed were five friars sent from Tabasco (1537), the chaplain of Montejo II (1541), the great Las Casas (1545), Villalpando, Bienvenida and Benavente from Guatemala and others from Mexico (1545) and Albalate with six friars (1549). Among these six friars was Diego de Landa. (Tozzer, 1941, p. 259.) It was in this interval that came the drought which caused the Xiu, in 1536, to attempt the pilgrimage to Chichen Itza in order to carry out at the Sacred Cenote a ritual for rain (Chapter V-4).

Yucatan conquered (1541–46). The second attempt to subdue the country was under Montejo II and his cousin, Montejo III. This began in 1541 and was successfully accomplished four years later. This need not detain us, as Chichen does not enter into this final chapter in the history of the country.

Postconquest Administration

Yucatan was governed by *alcaldes mayores*, later by governors. The Spanish leaders recognized the Maya "nobility" and its hereditary character. It is interesting to note how persistent was the framework of the pre-Columbian civil administration. Each of the main lineages was represented: "the Xiu in Mani, the Cocom in Sotuta, the Pech in Ceh Pech, the Cochuah, . . . and probably the Chel in Ah Kin Chel." "It has been little realized . . . that throughout northern Yucatan there existed for centuries an hereditary social class, which led a life free from these oppressions (taxes, etc.) and whose position was assured both by native custom and Spanish law. It was, indeed, no small privilege to be a native *hidalgo* during that period." This idea of a native nobility persisted "long after the Revolution of 1821 put an end to its existence." (Roys, 1933, App. E; 1939; 1943; Tozzer, 1941, p. 63.)

In Spanish times, the provinces of Ecab, Cochua, and Cupul were administered from Valladolid. In the 16th and 17th centuries a Cupul family was referred to as in control of Chichen and of Valladolid. In the *relación* of Valladolid (RY, 2:23) there is a reference to a certain Atzuc Copul, as *mayor señor* of Valladolid (Roys, 1952; Chamberlain, 1953).

The actual end of the native regime is variously placed by Maya writers. Some consider it to have been in 1519 when Cortés landed at Cozumel; others regard the settlement of Merida in 1542 as marking the end of Maya history.

Native population. It was natural to find that the natives suffered as the result of the Spanish occupation. In the *Relaciones* (RY, 1:49) we read (Jakeman, 1945, p. 105):

> The causes of their decrease are believed to have been that the war, which the Spaniards had with them in the conquest, destroyed some; and the change of customs, in which they afterwards have entered, will have destroyed its part, because in the time of their paganism they made use of a wine with which they became intoxicated, which was of great usefulness to them for their health by being a purgative, and its drinking was taken from them because they made use of it with ceremonies and rites of idolatry; and their being brought together and congregated in towns, and removed from their ancient settlements to make possible their doctrinal instruction, has been a great cause of many falling sick and dying. And from this has resulted another misfortune, which is that famines have befallen, because the people who are now together in one town were accustomed to be divided in six and eight, and as they were spread in all the land and had it all occupied, no rain fell which did not fall on cultivated lands, which was the cause of their having in that time great abundance of provisions. Also as a cause of many people having died have been the smallpox and other pestilences which have befallen.

The picture of the country with regard to attempts at Christianizing the natives, survivals of idolatry, and trials of the early Franciscans will appear in Chapter VI (see Tozzer, 1941, pp. 259–65).

Peten and the Conquest (1524–1696)[85]

Cortés (1525). The first *entrada* by the Spaniards into what is now the Peten where the Itza had taken refuge was by Hernando Cortés on his famous trek across the base of the peninsula of Yucatan to Honduras. He met Canek, the leader, at Tayasal, the capital of the Itza, on an island in Lake Peten. The primary object of this trip southward was to investigate the treachery of one of his captains, Cristobal de Olid.[86]

Fuensalida and Orbita (1618). The second appearance of Spaniards among the Itza at Tayasal was in 1618. The Franciscans Fray Bartolomé de Fuensalida and Fray Juan de Orbita "offered to go and preach the Holy Evangel to the Itza." The Indians feigned submission. The Spaniards "told the Canek that a previous Canek had promised Cortés to receive Christianity." The reply of the ruler, that the time has not yet arrived, has already been given.

Delgado (1621–24). The third attempt to reach the Itza was by Padre Fray Diego Delgado, who received permission from Canek to come to Tayasal. Villagutierre (2, VIII) tells us:

> Padre Fray Diego, the *Cacique* of Tipu and all the other Spaniards and Indians embarked (for Tayasal). On landing on the island, King Canek received them in peace. . . . But all this was pretense and evil deceitfulness and perfidy. . . . All the troops attacked the unprepared Spanish soldiers. . . . All were killed and their hearts were torn from their breasts. . . . Later they took Fray Diego, cut him into pieces, and set his head (and those of the soldiers) on stakes around the village.

Barrios and Cano (1694). A Spanish force, led by President Barrios and accompanied by Fray Agustin Cano, the Augustine friar, set out from Guatemala but turned back before reaching Tayasal.

Avendaño (1695–96). The next attempt from the north was by Fray Andres de Avendaño y Loyola in 1695. This was unsuccessful and the company returned to Merida.

The second trip by Avendaño, in 1696, succeeded. After the

very greatest difficulties, he reached Tan Xuluc Mul, mentioned in the Itza account of their journey south, and visited the Chakan Itza. Continuing, he arrived at Tayasal where he made a friend of King Canek. It was here that he learned about "the old manner of reckoning which they use, both of days, months and years and of the ages." There were demonstrations against the king's friendly attitude toward Avendaño. The Chakan Itza expressed open hatred for the Franciscan, and it was only by the help of Canek that he was able to escape. The natives were "foiled by God." Faced with starvation on their return trip, the Spaniards were saved by finding "some miraculous honey," the "Miracle of the Sapote," and received other supernatural favors.

While Avendaño was still struggling back through the wilderness, Canek sent his ambassador, Can, to Merida in December 1695. The governor of Yucatan, Don Martin de Ursua y Arizmendi, received him and his companions. Can then said that his uncle, Canek, asked for *padres* so that Christianity might be introduced among the Itza. He also said that his uncle had four kings under him who were his vassals—Cit can, Ah Amatan, Ah Kin, and Ah Itcan—as well as Ah Atsi.

URSUA: CONQUEST CONSUMMATED (1697). After delays and difficulties, the conquest of Tayasal was finally completely by an expedition led by Sargento Mayor Martin de Ursua y Arizmendi which set out from Campeche in 1697. On March 13, 1697, after a skirmish at Peten Grande, the Itza fled. "The standard of Jesus Christ was set up and royal arms were engraved over the door of what had been the principal temple. . . . A church was founded and the houses of the idols were cleaned out." In the Maya Long Count this would be 12.4.0.0.0 in a Katun 10 Ahau, 136 days before the customary 8 Ahau of Maya history.

For the later history Means writes (1917, p. 185), "In the first half of the ninteenth century, serious insurrections took place in the region, at about the same period the name Tayasal was taken away and Flores was substituted in honor of one Cyrilo Flores, a local patriot."

CHICHEN IN LATER TIMES

There are relatively few later references to the site of Chichen besides those already given. The site is mentioned by Vasquez de Espinosa (1942, 3, II) in relation to the founding of Merida in 1542: "He (Montejo) founded the first city in the year 1528 [*sic*], one year after coming on the site of the great city of Chichen Itza; and since there were large and handsome buildings there with human figures admirably wrought, with their earcaps (*orejeras*) and earrings, as well as figures of lions and other lions, such as to arouse admiration at seeing similar buildings and sculpture, very much like the superb remains at Merida in Spain, he called it Merida."

Ciudad Real, writing in 1588, speaks of a cattle ranch there at the time.

Roys (1939) tells us that there is no mention of the town of Chichen in colonial times before 1667, when there is a list of village officials from 1659 to 1666. In 1688 the Register lists 76 *vecinos*. "The present hacienda," writes Roys, "is believed to date back only to the eighteenth century." In 1729 and in 1815 there are records that the site was a cattle ranch.

In 1842 the visit of Stephens and Catherwood made Chichen known to the world. Its splendors were no longer completely hidden in the bush. Its long archæological record since that time is the subject of Chapter V-2.

In the War of the Castes (1846–47) the Casa Principal was completely destroyed. The hacienda was acquired by E. H. Thompson in 1894, but was not completely renovated until 1901, only to be partially destroyed again in the Revolution of 1921. From 1924 to 1940 it served as headquarters of the Carnegie Institution of Washington's Yucatan research.

14. CHICHEN IV AND V ARCHÆOLOGY

There seems little doubt but what important building activities at Chichen Itza had ceased by the time of the "founding" of Mayapan. The cause of this is difficult to determine. The record in the Chumayel Prophecies, Series I, of the establishment of Mayapan by the Itza and Kukulcan in a Katun 13 Ahau (1263–83) is a definite one, but does not necessarily mean that the Itza abandoned their city for the new one or that they expended all their energy in its erection.

The presence of late pottery in surface debris indicates that some people were living at the site or in its immediate vicinity after many of its major buildings had fallen into disrepair. It is possible that the actual center of ceremonial activity was shifted to another part of the site. Unfortunately, we can not at present clearly differentiate the period of the occupation of Mayapan—which is the period of dissolution—and the later period of abandonment, by either ceramic or architectural remains. Most of the following structures which have late qualities of construction or show evidence of late occupation probably fall in the period of Chichen IV, but their occupation may have continued beyond the time of the fall of Mayapan.

Temple of the Initial Series (Str. 5C4). This has already been mentioned as possibly a shrine with the atlanteans from an earlier period.

Cenote Shrine (Str. 1D1). Among structures possibly belonging to Chichen IV are the remains of a building on the edge of the Sacred Cenote, mentioned later in connection with the sweat house and the cenote ritual.

House of the Grinding Stones (Str. 3C5). This structure has a plan somewhat different from any other. Paul Martin, who excavated it in 1927 and found no vault stones, regards it as having had a roof of wood and mortar. From the pots and sherds, together with metates, grinders, arrowheads of stone and one of copper, and some human bones found on the floors of the rooms, one might well say that the structure was built or continued to be used in Chichen IV.

Str. 3C12. The plan of the colonnade and its low debris suggest partly perishable construction, which is often encountered at Mayapan.

Str. 5C8. Nothing remains of this structure except traces of a medial wall. It may have been a colonnade similar to Str. 3C12.

Court of the Thousand Columns. Ruppert (1952, pp. 73–74) lists and shows on a plan 58 different stone constructions scattered over this court (fig. 57). Some of these may have been *puestos*, or stalls for a market. They are paved or outlined by stones. Rarely are they more than 60 cm. in height. Worked stones, both plain and sculptured, were part of the raised floors. These came from walls, cornices, vaults, and blocks and drums of columns. One stone ring set in the pavement was found. All these constructions may well be part of the market for which Chichen was famous in comparatively late times. Within the court is Str. 3D3, a single-room building within which are two columns and around which, on the four sides, is a single row of columns. This may well belong in this period. A roof of wood and mortar or one of thatch is suggested by Ruppert.

Casa Redonda (Pollock, 1936). This is a crude round, probably thatched building, which seems to be very late. The ceramic collection made here by Roberts is unfortunately lost, but from the description of the types represented, it is probably to be placed either in Early or Middle Mexican, not in the latest period as might be expected.

Str. 5A3. This is a small one-room structure adjacent to a colonnade and resembles shrines at Mayapan.

Str. 3E7. This small structure with two interior columns was unexcavated. Its use of older stones and a sacrificial stone set in front of it suggest a late date.

Str. 1D2. Small round structures of this type have been observed in house groups at Mayapan.

Buildings with interior shrines. This feature does not necessarily indicate a late date, but it is more common at Mayapan than at Chichen Itza. The following buildings in addition to the shrine show evidences of secondary construction: Str. 6B2 (possibly one of "twin" temples), Str. 3C11 which shows secondary repair of its front lintel, Str. 2C3 with columns of re-used stone, Str. 2C1 in which the shrine is secondary, and Str. 5B14 which has a shrine or altar that seems to have been built after the collapse of the main structure. Fragments of a late incense burner were recovered near a single block of stone set in the shrine or in front of the altar.

Rebuilding. This has already been discussed under Chichen III. It is impossible to separate activities of this type into those of Chichen III and those of Chichen IV and V. Probably they were carried on in all three periods.

Cenote sacrifices. The most conspicuous activity of Chichen IV was the beginning of the practice of the Cenote cult and its sacrifices. This is discussed in detail in a later chapter.

Other remains. Aside from the cenote material all artifacts assigned to Chichen IV are found in surface debris after indicating a late re-use of buildings. Ruppert (1935) reports finding an effigy turtle, in all respects like those of Mayapan, buried under the floor of the Caracol, but other evidence compels us to assign this building to Chichen II.

After the "abandonment" of Chichen and the "destruction" of Mayapan about 1460, we have seen that evil times came to Chichen. Definite archæological evidence of its occupation at this time is lacking, but undoubtedly it remained a place of pilgrimage. Elsewhere, this period is also poorly represented. Roys (1952) speaks of late pre-Spanish remains in Yucatan as difficult to find and adds that it is hard to account for the lack of pottery and artifacts dating from this period. He goes into some detail on the early accounts of the destruction of the stone remains caused by the early Christian Fathers and the utilization of the worked stone in building churches and convents (see also Tozzer, 1941, p. 259).

Pottery trenching in early colonial sites by R. H. Thompson (1951) failed to reveal the ceramic complex of this period which is scantily represented by collections from Dzibilchaltun, Telchaquillo, and Mani, studied by Brainerd. Landa's mention of pottery "idols" and the fact that wares of colonial times resemble the Coarse Red ware of Mayapan, suggest that the ceramic complexes of Chichen IV and Mayapan persisted with only minor changes up to the time of the conquest.

This concludes the mythological, legendary, and historical aspects of Chichen I to V, and also the archæological situation which has been considered under each of these stages.

III

COMPARATIVE ARCHÆOLOGY STUDY

Chichen II and III have been considered both from the legendary and historical and from the archæological aspects. The focus is still on Chichen Itza in its Mexican epochs, but the range of the investigation includes other Yucatan sites, particularly Mayapan and the East Coast; Guatemala, with emphasis on the Cotzumalhuapa region and the highlands; Mexico, mainly Tula and Tenochtitlan; and various other regions and sites, among them Tajin in Veracruz. In many cases the Classic centers to the south are part of the collation when the history of some feature is presented continuously from early to late times, for example, the jaguar, the serpent, and the lotus flower. The various sites, together with the manuscripts used in this comparative study, are considered next, along with the relative chronological aspects of these places.

1. SITES, PLACES, MANUSCRIPTS

The abundant source of dated material in the Great period, available in the bas-relief on the numerous stelae and altars, practically disappeared in the Late Classic in the area of the Puuc. With a few exceptions, we know little of the representative art of the Yucatan-Maya as shown in stelae, altars, and panels, but we know much about the famous façades of this period and area, their elaborate geometrical art and a few life forms.

Chichen

It was not until the Toltec intrusion, after 1000, that there was, again, an abundant mass of bas-relief, wood carvings, and frescoes to give us a basis of comparison, not only in representative art but, at this time, in the ethnological groups of Maya and Toltec.

The archæology of Mexican Chichen (II and III), together with the structures assigned to each period, has been considered. Here the features derived from the Toltec will be considered more or less as a whole, although in most cases those in Group A (Chichen II) will be taken up before those in B (Chichen III). This comparative study would have been impossible without the large number of architectural plans and many records of stone bas-relief produced by archæological research in connection with the two horizons.[1]

Mayapan

[The history and archæology of this site have been covered and the principal sources mentioned in Chapter II–8. The comparative material stems exclusively from the period of the site's major occupation, contemporary with Chichen IV, since no structures or graves of earlier periods were found.—T. P.]

East Coast [2]

The evidence in the literature of the association of Chichen, especially in Chichen III, with the eastern shore of Yucatan, has been touched upon.

Classic stage. In our survey of Maya archæology, the possible evidence of a line of march of the first populations in this eastern region has been discussed.

Tulum has stelæ, one of which carries the Initial Series date 9.6.10.0.0 (564), but unfortunately, there are no other archæological remains to go with it. *Ichpaatun*, a site to the south, with a date 9.8.0.0.0 (593), should also be mentioned once more.

Coba is the only large Great period site in this region, with a series of dates running from 613 to 652.

Mexican periods. The extant ruins on the East Coast are all late. Most of them seem to date from Chichen III, but a few may belong to IV and V.

The "flat ceiling" construction is found in almost all the large buildings on this coast. The vault is usually limited to small structures of the shrine type and is generally of crude masonry.

There is little bas-relief. Most of the design is in stucco. There is fresco painting on the walls. The ceramics are mainly crude incense burners, some of which resemble *braseros* made today by the Lacandon Indians.

Tulum. This and Xelha are walled sites. Except for the patio type, most of the general plans of buildings in Toltec Chichen are represented here.

Str. 59 at Tulum, Str. 12 at Tancah, and Str. 1 at Xelha have a very late type of roof comb (a feature apparently missing from all the Toltec buildings at Chichen). At the two latter sites the typical three-member Maya molding of the Puuc is noted.[3]

Other Yucatan Sites

Coba, Quintana Roo. This site, although primarily dating from the Classic stage by virtue of its stelae and their dates, was also occupied in Mexican times, a fact shown mainly by the presence of the shrine type of building (Andrews, 1941).

Culebra, Quintana Roo. This should be included here as showing Mexican features (Andrews, 1941).

Santa Rita, British Honduras. This ruin in northern British Honduras had a long history. The late fresco is useful for comparison (Gann, 1900).

Southwest Campeche. There are a few sites here which show late characteristics of importance (Andrews, 1943). A preliminary study of this and surrounding regions was made by Berlin (1953).

Guatemala

Tajumulco, San Marcos. This interesting site in the southwestern part of the country dates from post-Classic times, evidenced by Plumbate and Fine Orange pottery and by marble vases. A stone table is edged with a line of heads, each in the mouth of a serpent which shows its upper jaw. This is not only a Toltec culture, but presents features which may be the result of a crossing of Pipil and Totonac (Dutton and Hobbs, 1943; Tejeda, 1947, p. 108).

Santa Lucia Cotzumalhuapa region, Esquintla. This area on the Pacific slope of Guatemala has several sites, which are believed to cover a fairly long period of time. Proskouriakoff (1950, p. 175) mentions Stela 1 at El Baul, with its most questionable early date, and although she does not discuss it, she regards the design as related in style to that at Izapa and San

Isidro Piedra Parada "with a fairly early date." Here we are concerned with 13 stelae and other sculptures near Santa Lucia. Proskouriakoff thinks that "we find combined traits from the whole range of Classic sculptures as well as some similarities to the Toltec Period at Chichen."

Most of the sculpture considered here seems to date from after the year 1000, when the widespread Jaguar-Eagle cult was brought into the country, presumably by the Toltec.[4]

Highlands of Guatemala. The ancient hill sites in the vicinity of Guatemala City have long been known and described. The important period of most of them is a late one. Some were found to be occupied on the arrival of the Spaniards. To these should be added the large number of cities investigated by A. Ledyard Smith (1955) and by Woodbury and Trik (1953).

Southern Mexico

Tabasco. The site of *Centla* is of considerable importance historically as it was here that Cortés had a most successful encounter with the natives and where horses were used for the first time in combat in America. The location is not definitely known. Scholes and Roys (1948, fig. 3) place it west of Bellota, which is across the Usumacinta from Frontera, now Alvaro Obregón. In 1869 C. H. Berendt discovered the ruins. The account of his trip is published by Brinton (1896) [5] who stated that he did not know where the collection Berendt found here had gone.

Brinton (1896, p. 265) quotes Berendt about the "clay figures": "Regarding the period down to which such earthenware was made, a broken vase disinterred from one of the mounds in my presence may give a clue. Its two handles represent Spaniards with their European features, beard, Catalonian cap and *polainas* or gaiters." There is no doubt that Berendt was mistaken. These figures are parts of crude braziers of coarse yellow clay. Most of the pieces seem to be in the form of round covers with the figure on top. The figures often carry a round shield in the left hand and a short spear in the right, and wear a roundish breast ornament. The head of the figure is sometimes in the mouth of a jaguar, with the skin and claws of the animal's body spread out as part of the headdress; sometimes in the open jaws of a bird. At the top of the headgear a bird is placed, usually shown as descending. This type of brazier is very much like another at the Museum from San Pedro on the Lacantun. They all seem to be late incense burners, of the kind found across the base of the peninsula, up the East Coast, and stretching west as far as Mayapan. The ones described here appear to represent Toltec warriors; they are much later than the bearded and armed Mexicans who appear on Plumbate pottery.

Comalcalco seems most closely affiliated with Classic Palenque. One building has an outer room supported by two masonry piers (Blom and La Farge, 1926, 1: 109).

Chiapas. *Tonala* presents several problems, considered here as a whole (Ferdon, 1953). It has courts surrounded by buildings, stelae, and altars depicting monsters, all features associated with the late Classic stage. The carvings on the stelae and other monuments show some affiliation with those at Cotzumalhuapa.

The architectural plans are of special interest. There is the single-room temple, one with a sanctuary or shrine at the back; a temple with two rooms, one behind the other; a temple with an entrance supported by two masonry piers; and a structure composed of two of this type, one on each side of a single room. A new element is the inner room with a "porch." This was undoubtedly supported by wooden columns. The apron molding is present. Most of these features indicate a site dating mainly from the Mexican era. It is unfortunate that there is no architecture remaining at Cotzumalhuapa with which to compare these plans.

Palenque. This major Maya Classic site is touched upon only incidentally in this study.

Central Mexico

Classic sites. Dating from this stage, there is very little useful comparative material to be found in this part of the country. During the period corresponding to Classic Maya or the pre-Toltec era, Teotihuacan, Xochicalco II and III, Cholula II-IV, Monte Alban III, and the late Classic remains at Tres Zapotes are drawn upon to a very slight extent (see Marquina, 1951, Chart, p. 924).

Tula. The part played by this site in legend and history has been covered. Its close association with the Mexican periods of Chichen has been noted by many. As the source of most of the new features at Chichen after about the year 1000, it is of special importance and therefore the focus of our attention along many lines, archæological, artistic, and religious. These will be considered *in extenso*.

Tajin. Next in importance, for comparative purposes, is much of the material in this famous site in north central Veracruz. Unlike Tula, where almost every feature has its Chichen parallel, Tajin in its art and architecture has a life all its own; but the subject of much of its art, rather than the form, is of importance here.

Tenochtitlan. The presence of Toltec bas-relief at the Aztec island sites of Tenochtitlan and Tlatelolco is worthy of comment. Various stone monuments here will be examined in detail for similarities with those at Tula and at Chichen. The continuity of much of the art of Toltec Tula and Aztec Tenochtitlan is notable. Here there is somewhat of a parallel between Chichen II and III and Mayapan and the East Coast.

Oaxaca. The Zapotec and Mixtec cultures, Monte Alban, Mitla, and other sites in this region, together with the numerous Oaxaca urns (Caso and Bernal, 1952), all contribute to this study.

Sites Synchronized with Chichen II, III, IV, V

The sites already mentioned, together with others used in this comparative study, are given in Table 9, which shows roughly the relative periods to which each belongs. This serves as a chronological orientation in relation to the Mexican periods at Chichen.[6]

Codices

In addition to the voluminous data obtained from the ruins themselves and the artifacts connected with the various cultures, the codices have been of the greatest value.

Maya. The three Maya manuscripts—the Dresden, the Madrid, and the Paris—have already been described.[7]

Toltec (Borgia) group.[8] There is a group of manuscripts usually called "the Borgia group," including those which show affinities with the Maya and with the Mixtec type of codex. Here, for convenience, they are called the Toltec group. They

include the Borgia, Vaticanus B, and Bologna or Cospi, together with the Fejervary-Mayer (all of which have parallel passages), the Laud, and a few other less important documents. They seem to be earlier than the Mixtec but it is difficult to place them exactly in their proper chronological position.

Mixtec group. These, often referred to as Zapotec, include the Nuttall or Zouche and the Waecker-Götter in the British Museum, the Vienna or Vindobonensis, the Bodleian (2858), and Selden I (3135) both in the library at Oxford, the Colombino and the Porfirio Diaz in Mexico, the Becker I (or Manuscrit du Cacique) and II, and others including various *lienzos*. This group is of increasing interest as it is now regarded as part of the historical picture.[9] Caso, for example, thinks that the Vienna (reverso) relates to the Tilantongo dynasty, which ran from 720 to 1325. Burland (1947) suggests that this codex contains a list of the Toltec high-chiefs in Tula and ceremonies connected with them and has brought forward a new view of Ixtlilxochitl's accounts of the Toltec chiefs, each reigning for 52 years.

The main figure in this list of rulers was 8 Deer, "Claw of a Tiger" (fig. 607), who was born on the day 8 Deer in the year 12 Cane (1011) and died on the day 1 Grass in the year 12 Cane (1063).[10]

Aztec group. These include the twin codices, the Borbonicus and the Aubin Tonalamatl; the twin post-Columbian Telleriano-Remensis and the Vaticanus A, both derived from a missing prototype (Thompson); and the Magliabecchiano. The valuable Sahagun manuscripts belong here. These and several others date, in general, from the post-Columbian period.

There are also types of codices from Morelos, including the Tlalhuica and other groups.[11]

2. ARCHITECTURE

Architectural features of construction, function, and plan will be considered first, followed by architectural subsidiaries, such as benches, altars, and other semipermanent constructions. Table 10 shows their distribution at Chichen, Tula, and Tenochtitlan.

Terrace

In the published plans of the great centers in the Maya area, low platforms or terraces are common and are usually built with some degree of orientation. Their lines are especially evident at those sites of which the central part has been cleared.

Terraces were usually faced with stone and were always covered with a hard plaster floor. In most cases, several levels are encountered, one floor running under another. This interplay of horizontal lines is often important in determining the sequence of construction and therefore the relative age.

Chichen. Looking at a modern map of this center, one is struck by the multiplicity of terrace lines in the northern part of the city. Their sparseness in the southern section is undoubtedly due to failure to trace them here in the ruins, which are for the most part buried in the bush.

The terraces are clearly shown in figure 1. Ruppert (1952, p. 2) describes the situation:

> No study had been made of the great terraces. The one in the northern part of the city . . . is built of large unworked stones laid in dry fill. Mortar is encountered only near the top where it serves as a base for the hard-packed lime plaster floor. Trenches and test pits made by Morris (1931, 1:168) between the West Colonnade [illegible] the Castillo exposed three floor levels. A portion of terrace fac[illegible] exposed south of Sacbe No. 6, shows large, roughly faced ston[illegible] Surrounding the edge of the terrace is a parapet. It is in a p[illegible] state of repair but seems to average 70 cm. in width and now ri[illegible] not more than 65 cm. to its fallen upper margin. Ruz has recen[illegible] secured evidence of a covered portal at the western edge of the te[illegible] race just south of the Great Ball Court. Other entrances [to th[illegible] court] were by way of the various sacbeob.
>
> This gateway is really two arches with a room between whos[illegible] lintel is supported by a single column.

Assemblage

Whereas the buildings dating from Chichen I seem, in many cases, to be arranged in several "clusters," some at the terminus of a roadway, those belonging to the Toltec-Maya period are scattered over a good part of the site. There is one special concentration of structures: that northeast of the Castillo and around the adjoining Court of the Thousand Columns.

Court

Four buildings of the residential type, facing inward, constitute a common grouping in the Classic period in the south and especially at Uxmal but are generally absent from Chichen, even in the Maya period of the site.

Chichen. One court here, the Northwest Group, is of special interest. It seems to be late and resembles an arrangement frequently noted at Mayapan. The four buildings face an altar and, with a fifth to the south, all rest on a terrace with a stairway on the east side. The structures on the east (Str. 2C3, fig. 20) and west (Str. 2C1, fig. 23) sides each have an interior sanctuary or shrine. Strs. 2C1 and 2C5 have interesting serpents incised on their columns; the former has pillars with drums, the designs of which do not match. These features are considered later (Seler, 5: 302, fig. 176a).

In much later times, at least, the court seems to have played an actual part in religious observances. In the ritual for the month Mac, Landa (1941, p. 163) reports, "They came together . . . in the court of the temple in which the *Chacs* and the priest took their places seated in the corners, as they were wont to do, in order to drive away the evil spirit. . . . the people and the priest and officials assembled in the court of the temple where they had erected a heap of stones with its steps, and all very clean and ornamented with green foliage."

Mayapan. [The only arrangement here that approaches the closed rectangular court occurs in connection with residential buildings of the better sort. Nevertheless the tendency is to place buildings on four sides of an open square, though the later building of shrines somewhat obscures this arrangement. Domestic groups often have a small platform in the center of the square.—T. P.]

East Coast. "Most of the sites, however," writes Lothrop (1924, p. 27) "consist of but one or two groups of related structures gathered around a court. El Meco, the Cozumel ruins, Xelha, Tancah, and Chacmool may thus be described. Tulum is a series of complexes, in which several courts may be distinguished."

Construction

Chichen. Outwardly there is little evidence of any important changes in the character of the stone construction in Chichen II.

In general, the walls are less heavy than those in the previous epoch, in which "the tenons are long, in contrast to square, well-faced, veneer-like stones of the Toltec period" (Ruppert, 1952). The corbeled vault, as we have seen, continues from the earlier time, and the stones are usually cut for the slope of the vault. Ruppert points out that in the previous period the ruins show many of the stones fallen *en bloc*. In other words, the mortar then was better and great pieces of the hearting and veneer fell together in large pieces. He also reports that the top of the wall under the vault usually had a plaster finish.

It is not always possible to estimate the chronological position of stone construction by its character. In very general terms, however, the best walls seem to be found in the buildings of Chichen I.

One rather striking difference between the buildings in the sites dating from the Great period is that, in this later era, the inner and outer rooms are on the same level. In Chichen I and in the cities in the south, the interior rooms are generally raised a step higher than the outer ones.

Usually the wooden lintel replaces the stone one. In Chichen II the temples were usually erected on pyramids but most of the other structures did not have a raised foundation.

Mayapan. The many remains here of "cut and smoothly faced stones" and "carved elements of decoration almost identical with those of the most elaborate buildings at Kabah and Uxmal" raise many problems. "No building of this earlier period has been identified" (Proskouriakoff, 1952, p. 256).

The crude walls of the later structures and the monuments are made "from a coarse-grained, shell-filled limestone," which erodes unevenly. This difference in the texture of the stone may be an important factor in the crudeness evident in the present stonework.

In many cases the use of stucco seems to be more common here, as on the East Coast, than at Chichen.

Pyramidal Mounds

Various sites. There is a very striking similarity in the cross-sections, showing the stone facing, of many of these great structures in Middle America with their compound zones. In some cases there seems to have been little or no change from early to late times. Figure 10 shows (*a*) the section of Str. A7, Kaminaljuyu, Guatemala, and the Temple of the Warriors at Chichen. This, in turn, is very little different from the outline of a structure at Teotihuacan (*b*) or from that of the main pyramid at Tula (*c*). Cholula (*d*) shows much the same lines, as do Mausolea I and III at Chichen (*e*) and the Coatepantli wall at Tula (*f*).

Mayapan. [This silhouette, sometimes called "talud-tablero," has not been observed at Mayapan. The terraces of pyramidal temples at Mayapan most often rise in a single slope faced with rough masonry. Some simple terraces have an "apron" molding more akin to those of the Classic period of the Peten than to those of Chichen Itza.—T. P.]

It should be mentioned that the stone facing on the pyramids at Teotihuacan and at Tula (Acosta, 1944, fig. 5) is generally held in place by stones projecting from the main mass of concrete behind. At Chichen and other sites these bonding stones are missing. The back of the individual stones of the facing itself furnishes the necessary contact.

Substructure

The cropped pyramid is seen at Uxmal, in the Puuc, and at other sites in the Maya area, and is probably missing in Chichen I. There are some fine examples here in both Chichen II and III.

As has been noted, other than the platforms supporting the North and South buildings of the Great Ball Court, some of the colonnades and in a few other places, the temple does not seem to stand on a substructure plinth as is the case with most of the structures in Chichen I.

[At Mayapan, on the other hand, a plinth is usually present, though there are exceptions, such as Str. Q-95, which is entered on the terrace level.—T. P.]

Stairways

Chichen. The typical temple-pyramid of Chichen II is the Castillo, reached by four stairways.[12] Such structures are usually monumental in aspect. The High Priest's Grave of Chichen III is very similar. Many of the tribunes at Chichen have four stairways.

The temple-pyramid of Chichen III is usually approached by a single stairway, which starts in or at the back of a portico or a colonnade. The Temple of the Warriors is an example of this kind of structure, which is especially important because it presents so many characteristics in common with the main temple at Tula.

The elaborate stairway of both varieties of pyramidal temples is usually associated with the feathered serpent, sometimes the body being shown on the balustrade. There is usually a head and tail at the bottom corresponding to the tail and head at the top. These and the serpent columns supporting the façade of the temple will be described later.

On the North Temple of the Big Ball Court there are three stairways which seem to be unique. The main stairs have a Jaguar-Eagle-Bird in low relief at the top of each balustrade, which is decorated with a tree ending in roots enclosing a mask and, below, another type of mask. The two lateral east and west steps leading to the low wall at either side of the temple have, on each of the pairs of balustrades, the same tree with the mask at the top and bottom.[13] The two round columns supporting the façade of the temple have the Jaguar-Eagle-Bird above the tree, its roots mingled with a mask.

The rectangular mound with two temples on top, each reached by a stairway, is absent from Chichen but present at Mayapan. This feature is most common in the highlands of Guatemala.

In Aztec times two temples at the top of a pyramid are frequent. They are reached by two stairways, or a double one, each with its own balustrade.

Mayapan. Descriptions of stairways here note a vertical block of stone near the top of each balustrade. These seem to be similar to the two sculptured stones, each rising vertically, at the top of the balustrades of the stairway on the Mercado at Chichen (Ruppert, 1943a, p. 236).

Batter (*Talud*)

The sloping walls seen in the stone covering of pyramidal structures seem to have no special function other than as a facing for the rubble behind. The true batter is a solid buttress-like slope at the base of the outer wall of buildings. This may

have served to strengthen the vertical portion against the stress of the vault inside.

CHICHEN. This feature is absent from buildings of the Yucatan-Maya period but quite consistently present in both the early and the late Mexican epochs at this site. Its absence in the Castillo *sub* will be mentioned later.

MAYAPAN. The *talud* is sometimes found here.

EAST COAST. The buildings here generally lack the slope at the base of the wall. Str. 4 at Cancuen has a curious notched type of *talud*.

"The outward slope of the exterior walls from bottom to top" is fairly common at Tulum. Lothrop speaks of it as an element of strength.

HIGHLANDS OF GUATEMALA. The late sites in this region almost always show a batter at the base of the wall.

TULA AND OTHER SITES. Here we see a batter at the base of the Coatepantli and in other places. The lower part of the wall of the "Cielito" (Ruz, 1945, fig. 54) seems also to have it. It appears in house construction at Teotihuacan. In none of these cases does the suggested reason for its appearance at Chichen apply as there are practically no vaults in any buildings in Mexico. At Tajin and at Xochicalco this *talud* is also seen on the foundation pyramid.

RECESSED PANEL

This architectural device on the façades of buildings usually has in it a design in low relief.

CHICHEN. Mausolea I and III show the typical form. This depressed panel may have given rise to the use of the alternation of a plain façade with the decorative panel, as in the Temple of the Warriors or in the Temple of the Wall Panels.[14] These panels or coffers occur on the side and back walls of the Temple of the Jaguars.

EAST COAST. This panel, a common feature over doorways, usually contained a figure modeled in stucco.

TULA. In the main temple, below the line of jaguars, there are recessed panels alternating with those flush with the façade, each set having a similar design.

TAJIN. This city is famous for the rows of niches on the terraces of its great pyramid. Panels are also seen at another site in Veracruz: Yohuallichan.

SOUTHERN MEXICO. At Monte Alban the depressed panel is common. The "tablero" type of wall decoration might be mentioned here. Mitla is famous for its façade arranged in panels, each with its own geometric design.

MASKS

The use of masks and other façade and exterior decoration at Chichen and at other sites will be taken up later.

DOOR JAMBS, PILASTERS

At the sides of the portico entrance and of the door from the outer to the inner room of many of the temples of the Mexican periods at Chichen, there is often a pilaster placed in the middle of the jamb. This arrangement results in five panels on each side of the door. Excellent examples are at the Castillo and the Temple of the Jaguars, where each of the five faces carries the figure of a Toltec warrior.

In the Temple of the Chac Mool, the three sides of the pilasters at the entrance and at the inner doors carry the usual design. In the Temple of the Warriors is the same design but with the addition of a vine with blossoms on each of the four jambs.

In most cases the division of the panel into a center section with a smaller one at the top and bottom, each with its own design, follows the corresponding bas-reliefs on the columns.

COLUMNS

The appearance of round or square columns at the entrance to the single-unit temple and also in the interior plan is a comparatively new feature. The rooms in general are large and have more light owing to the pillared vestibule.

The atlantean support—of interior vaults, of the entrances of porticoes, or of benches or altars—has already been mentioned. This type of pillar, together with porticoes or galleries, patios surrounded by columns, and elaborate colonnades will be considered in detail later.

ROUND AND SQUARE COLUMNS. At Chichen there seems to be no special rule regarding the distribution of round and square columns. Ordinarily both are not found in the same structure, but there are a few exceptions to this: in two patio-type buildings, Str. 3C13 and the Mercado, where the 37 round and square columns in the gallery alternate. It is unusual to find sculpture on round pillars.

In the North Colonnade, in the front row are 13 square pillars of varying sizes and then about 25 round ones. All those behind the front row are also round. A change of plan here seems evident.

STONE AND MASONRY COLUMNS. At Chichen and most of the other Mexican sites in Yucatan, the columns are made of stone drums. There is considerable difference in the way the stones are fitted together, with or without spalls and with a heavy or a light coating of plaster over the very commonly carved design.

The grain of the stone, in some cases, determines the manner in which it is worked and the way it has withstood time and weathering. Sometimes it appears as if an especially fine-grained stone had been inserted into a wall at a place where great detail in the carving was desired, apparently so in the Lower Temple of the Jaguars.

The columns at Mayapan are of most crude stone which may, at one time, have been completely covered with plaster. [Some bear high-relief stucco; drums with a projecting tenon, presumably to hold stucco, are sometimes found. In general, column drums are lower in proportion to their diameter than at Chichen Itza. Str. Q-95 is the only major structure that has square columns, and these are built of masonry rather than of drums.—T. P.]

The column of stone drums is practically unknown either in the early or late period in the south. What often appears to be a column is of masonry construction, as evidenced at Palenque where instead of columns there are piers or parts of walls broken by doorways.

The plans of sites may look much alike but their construction may differ, and their age may vary within wide extremes.

ROOMS WIDENED BY PILLARS. *Chichen.* A device to build wider and sometimes square rooms, by interior columns supporting parallel vaults, is common at Chichen. Excellent examples, among many, are the Castillo, the High Priest's Grave, and the Temple of the Interior Atlantean Columns. The last has two columns of this type, behind which are two round columns.

Mexico. Whereas in the Maya area the multiple vault is supported on wooden lintels which, in turn, are held up by interior columns, in Mexico with no vaults the rooms are still widened by columns supporting ceiling beams. In a few cases this method was used at Chichen.

An excellent example of this is in the main temple at Xochicalco, restored by Marquina (1951, p. 139). The most famous instance is the Hall of Columns at Mitla.

Just as at Chichen where atlantean and round columns are used as roof supports in the same room, so at Tula there are four atlantean and four square columns in the same structure; but here the atlanteans are in the outer room, the square columns in the inner one.

At Malinalco, Str. 4 shows, near the center of a large quadrangular structure, two foundations for upright posts to support a timbered ceiling.

DISPOSITION OF THE DESIGN ON COLUMNS. *Chichen.* Most of the square columns here have figures in bas-relief on the four sides, paint being often used to bring out the details of the carvings. Each face is divided into three zones, the central one occupied by a standing figure usually of about life size (fig. 85).

Jambs and pilasters often have the same three decorated divisions and follow, in general, the same design as that on the columns of the structures where each type occurs.

Above and below the main figure are two smaller areas, almost square, showing four different types of design. Each structure usually has the same minor design in the same position. Sometimes the upper and lower figures are the same but more often they are different. Over 1350 of them have been counted. Table 11 is a compilation of the number and percentages of the various forms and the number in each case of those unknown.

This small bas-relief, in most instances, falls in one of four groups:

1. Atlantean figure (fig. 263). This is usually a male. On account of the presence of the ends of the *maxtlatl* and a very typical necklace decorated with a shell pendant, the figure is undoubtedly a Maya. This personage, associated with four different backgrounds, is considered to be a sky bearer or bacab, and is described in Chapter III-7G in discussion of the pantheon. Among other places they occur as the top and bottom figure on over 130 columns, pilasters, etc. They are also found in the Castillo with a similar figure as a capital on the two columns, in both Temples of the Tables, in the Temple of the Chac Mool, in Str. 5B16, and usually in the Temple of the Jaguar Atlantean Columns. Over 50 are found at the top of columns with the Jaguar-Eagle-Bird in the lower position.

2. Sun disk (fig. 274). This is always found in the top position, from the center of which a Toltec with his *atlatl* descends from the sky. It is noted only in the Temple of the Warriors and its Colonnade; always accompanying it, at the bottom, is the Jaguar-Eagle-Bird. This combination gives us the heaven, the figure on earth, and, below, the underworld. This is considered under Astronomy (Chapter III-7H).

3. Mask (fig. 314). This usually has two noseplugs and there is a mosaic-feather band at the top with a circular design in the center, sometimes representing the sun. The delineation varies greatly. The best examples, found above and below the main figure, are in the Temple of the Jaguars. In the North Temple of the Big Ball Court and on the Chac Mool pilasters, it also occurs in both places on the columns. In the South Temple of the Big Ball Court and the Northeast Colonnade it is found only in the upper position.

4. Jaguar-Serpent-Bird (fig. 317). With one exception, in connection with trees in the North Temple, this monster occurs only in the lower zone on almost 500 faces of columns. In addition to its appearance in the Temple of the Warriors and its Colonnade, it is noted, with the mask above, in the South Temple, the Northeast and North Colonnades, and Str. 5C15. It is also found in places other than on columns. This and the mask are considered under Monsters and other varieties of masks (Chapter III-7I).

In many cases the determination of both the upper and lower figures could not be made with the data available.

There is no seeming correlation between different designs and the character of the central figure, nor can any rule be determined regarding the types as distributed in the structures in Chichen II and III.

In Str. 4B1, in the lower place there are a few examples of a reclining figure (fig. 69), with one arm at the top and the other below.

In the South Portico of the Toltec Annex of the Monjas there are five round columns each of which has an unusually large square capital. On each face is a Toltec reclining full length.

The two reconstructed columns of Str. 2C3, with two drums containing masks turned upside down and a third, correctly placed, have already been mentioned.

So far as style is concerned, there is much the same contrast in execution between the figures in the Lower Temple of the Jaguars and the ones on the Temple of the Warriors and later structures, as we shall see in the far simpler masks dating from the two periods.

Tula. The four columns (fig. 561) in the inner room of the main temple have a different arrangement from those at Chichen and they are much taller. Instead of a main figure with a minor one at top and bottom, there are two major figures or designs with three similar forms, one each at top and bottom and a third separating the two major designs. The latter is like a type found on the celestial bands and called, for convenience, "the sign for Mercury." The human figure on each face in its content is somewhat similar to those at Chichen. There is a typical Toltec on each face alternating with a formalized arrangement of darts, an *atlatl*, and a curved weapon on either side tied with the bow-like tape seen on the knees and anklets of the "anomalous" Toltec at Chichen and also in the lower figures here. In each case the upper two Mexicans wear the puffed garter and anklet. The lower figures have the tape design in the same places in the figure.

ATLANTEAN COLUMNS. *Chichen.* These are of two types: a tall one which supports a roof or vault or lintel, and a short one used in connection with an altar. They will be considered later.

Tula. There are four of these (fig. 562) in the outer room of the main temple. They are typical Toltec warriors. Unlike similar figures at Chichen who support the load on their raised hands, these have their arms at the side, and thus can carry an *atlatl*, darts, and the curved stick. As each of the Tula figures carries the weight of the beam directly on his head, these can, more properly, be called male caryatids.

SERPENT COLUMNS. One of the most interesting and novel architectural developments in the Toltec period is the feathered-serpent column. It may be round or square.

Chichen. There is considerable difference in the artistic appearance of these columns. Those at the Temple of the Jaguars are far too short in relation to the serpent head and tail; the ones in the Temple of the Warriors are much better proportioned. In the former example (a round column) the back of the head of the serpent usually forms the front of the lowest drum; in the latter (a square column) the serpent head is separate and placed in front of the base of the pillar. In some cases, in a round column the serpent head is a separate stone and is cut behind to fit the column (Str. 3E5). This type of serpent pillar is discussed later under Representative Art (Chapter III-7).

Another variety of the serpent column occurs at Chichen in Strs. 2C1 and 2C4. Each of the two columns in the two structures has an incised design of a reptile with his rattles at the top. The sinuous body is covered with marking, and the head with the open jaw is at the base of the column.

Mayapan. Up to the present time we know of two pairs of these columns, more crudely carved than those at Chichen. The shaft is plain and each head of the serpent is separate from the column. Several rattles and serpent heads have also been found. [In some cases the serpent heads are executed in stucco and tend to have grotesque forms, sometimes including the paws of the monster.—T. P.]

East Coast. The same type of support is found in connection with the terraced pyramid of the Castillo at Tulum, Str. B at El Meco, and Temple 12 at Tancah.

Tula. One of the first carvings found at Tula was part of a serpent column. Marquina (1951, p. 153), in his restoration of Temple B, shows a portico supported by two round pillars of this type exactly similar to those at Chichen.

Lintels

In the Yucatan-Maya stage at Chichen, there are many stone lintels, some of which have hieroglyphic inscriptions. Only one seems to have had a figure in bas-relief: over an inner door on the south end of the Akabtzib.

In structures dating from Toltec times, there is one (Str. 7B1) which has a lintel with glyphs. Another, in the Temple of the Initial Series, is replaced on later atlantean figures.

In the Temple of the Jaguars, three faces of a carved wooden lintel have been wonderfully preserved (fig. 270). This is, unfortunately, not the case with the lintels in the Castillo over the main entrance and over the three single doorways. A sun disk seems to be present on one of them, and a line of seated Toltec on another.

Use of Plaster

The usual custom seems to have been to cover the entire exterior of the temple with plaster. Regarding the walls of the Temple of the Warriors, Morris (1931, p. 35) writes: "Coat after coat of liquid lime was applied until a layer 5.6 cm. thick had accumulated over plain surfaces, cornices and sculpture, with the result that all contours were rounded and most of the detail of the carving was lost. . . . By carefully picking off the flakes from the surface inward, 131 coats were counted." Later (p. 433) we learn that these additions were "so paper-thin as to make an accurate count difficult, and that the twenty-second one, counting from the wall, bore a boldly executed fresco."

"Plaster covered every feature of the temple interior," Morris (p. 20) writes. "Walls, bench, altar, vault and capstones were plastered over. . . . Even the joints between the column blocks were so skilfully filled out with stucco that, without minute examination, it would have been very difficult to determine that the pillars were not monolithic." [15]

In other cases, perhaps later structures, less care was taken in fitting the various blocks together. Spalls were used to fill in the chinks and the whole surface was covered with a layer of plaster, then usually painted so that the total effect was a smooth surface in which the design was cut. Sometimes a plaster wash was applied to the stone surfaces before they were painted.[16]

Use of Paint

Chichen. Colors were applied to interior and exterior walls and to other surfaces. Bas-reliefs were almost always painted, and some of the color has persisted to the present day. The complicated designs are often clarified by the different colors, especially so on the famous lines of warriors on the Lower Temple of the Jaguars.

Fresco painting is mentioned in other places. It is usually found on the interior walls depicting secular as well as religious scenes.

Mayapan. [A partially preserved mural in Str. Q-80 represents a row of temples raised on a terrace decorated with representations of what is thought to be the head of the earth monster.—T. P.]

3. ARCHITECTURAL PLANS [17]

There are several differences in plan of some of the structures in the two periods. The temple-pyramid with its colonnade and the gallery type of structure are not found in Chichen II. The interior bench and the dais with serpent frieze and the processional below are found only in Chichen III. The atlantean altar, with one exception, does not appear in Chichen II.

Function

In Chapter I the religious and secular structures were considered. In behalf of the socio-economic side of Maya life, it would be a great satisfaction to find adequate data on the architectural plan. This is practically impossible so far as stone structures are concerned. Other than house mounds excavated at Mayapan, the ball court, and the "sweat house," there is no definite information on the subject that has not already been discussed many times.

In general, all extant Maya structures are usually classified as religious or secular. In the first class belong not only the many forms of temple where actual worship took place but also the ball court and the sweat house, both of which were undoubtedly connected with religion. In the second type of structure is the "palace," usually of several rooms, which has generally been considered as the place where the clergy dwelt. In the Great period, as at Tikal and Nakum (Tozzer, 1911, 1913), there is sometimes a direct correlation between the two; a temple-pyramid with its accompanying residential edifice close by. The purely secular structure is difficult to find.

There seems to be no question that the religious centers of Maya cities differed in general plan and in many other respects from early to late times. New ideas, new beliefs and rituals introduced by the so-called Toltec at Chichen undoubtedly had an effect on architectural planning and decoration. The importance of the worship of Quetzalcoatl, for example, is certainly reflected in the great increase in the representations of the feathered serpent. Does the probable change in the character of the society show itself in the religious as well as in the secular buildings? These questions are difficult, if not impossible, to answer.

Early Authorities on Temples and Houses

Some idea of the religious structures and the domiciles of the lords and priests can be obtained from the accounts of the early Spanish authorities. There are several describing the situation at Mayapan. It must be remembered that this site seems to date in part from Chichen III. Bishop Landa writes (p. 62):

> Their dwelling place was as follows:—in the middle of the town were their temples with beautiful plazas, and all around the temples stood the houses of the lords and the priests, and then (those of) the most important people. Thus came the houses of the richest and of those who were held in the highest estimation nearest to these, and at the outskirts of the town were the houses of the lower class.

We have already learned that Mayapan was surrounded by a wall, within which they built their temples. Landa continues (p. 26): ". . . since within the enclosure there were only temples and houses for the lords and the high priest, they ordered that other houses should be constructed outside, where each one of them could keep some servants, and to which the people from their towns could repair, when they came to the city on business."

In the Gaspar Antonio Chi *relación* of 1582 (Tozzer, 1941, p. 230) we read: "All the citizens and inhabitants who lived within (the enclosure of the city of Mayapan) were exempt from tribute, and in it dwelt (all the nobles of the) land whence at the present day (those who were considered) lords and nobles in the land remember the sites of their former homes."

Landa (p. 161) writes: "In either of the two months of Chen or Yax . . . they celebrated a festival, which they called *Oc Na*, which means the renovation of the temple in honor of the *Chacs* . . . and besides this, they renewed the idols of clay and their braziers. . . ." This renewal ritual, not on a certain month of the year but at the conclusion of a cycle of 52 years (4×13), entailed tremendous renovation, sometimes the building of a new temple or the covering of the previous structure with an entirely new facing, as at the Castillo or the Temple of the Warriors at Chichen (Tozzer, 1941, p. 151).

Question XXXI in the famous Questionnaire of 1577 asks about the native houses. In many of the *relaciones* (RY, 1: 125, 101, 184) we find practically the same statement: "Most of the houses face the east, the north and the south and none face the west unless they are *oratorios* or temples, some of which do face the west." In a cursory examination of the temples we find this statement amply verified; about 54 per cent faced west, the others about evenly divided among the three other cardinal points.

Temples

In describing the structures assigned to Chichen II and III which have been called temples, we shall proceed, so far as possible, from the simple building with a single room to those more complex in plan. There is no intention, however, in using this order, to suggest any evolution of type. The number in each class is approximate only.

Representation. On the bas-relief on the vault of the North Temple of the Big Ball Court, there is, beside a domestic building, an excellent picture of a Yucatan-Maya structure with the typical three-member cornice and medial molding (Marquina, 1951, photo. 441).

On the two main Temple of the Warriors frescoes of Maya villages, one (Morris, 1931, pl. 139) shows a temple with a single entrance and another with a double one, each of which seem to have a row of typical stones along the top.[18] The other painting (fig. 62) has a temple with two doors, less realistic, but associated with the feathered serpent.

Temple with one entrance. Most of the single-room structures with one doorway and no interior support have been placed in Chichen I. The Temple of the Initial Series (fig. 11) has a single room and at one time had three doorways. This is the last of a series of rebuildings here, an earlier building being shown in the section. The two atlantean figures at the entrance once belonged to a strucure having a portico with three doorways. It is not improbable that, as we see the ruin today, it could have been used as a shrine in Chichen IV.

There are two single-room structures which have columns in the center of the room to support the vaults. One, the Temple of the Little Heads (fig. 12), must at one time have been of some importance. In addition to two tall atlantean columns to support the vaults, it had a table altar, with short atlantean figures running along the back wall, a feature of several far more complicated buildings. Within the room were two excellent death's-heads and part of a bird carved in the round (Ruppert, 1952, fig. 145,*a*,*b*). The other single-room building with two round columns in the center was Str. 3E7 (fig. 13). As no vault stones were found in the debris, it is possible that there may have been a beam ceiling. A long nose from a mask was seen, and a "sacrificial stone" was encountered about 4 m. in front of the door.

There are at least four temples at Chichen with a single doorway and an inner room directly behind the outer one (fig. 14). One of these (Str. 6E4) has an altar in the inner chamber, one face of which has traces of a red and blue painted design.

There is an unusual and separate unit abutting the front of a structure with two rooms (fig. 15). This is a circular chamber with a diameter of 4.5 m. A re-used sculptured stone was found in the facing of a wall.

Pyramidal Temples

Chichen. Before proceeding to structures with more complicated plans, we should note the typical Toltec pyramidal temple with a serpent-column entrance. The two most striking examples are the later Castillo and the High Priest's Grave (fig. 27). Each has four monumental stairways and plans fairly similar to the structures above. The first is placed in Chichen II, the second in Chichen III.

In this second period is another type of striking pyramidal building with a single stairway leading from a colonnade. The best example of these numerous structures is the Temple of the Warriors (fig. 49). They will all be described later.

Mayapan. The pyramidal temple, similar in many respects to the Chichen Castillo, has already been mentioned.

Tula. The most important pyramidal temple so far found at this site is the structure variously named Edificio or Mound B, Temple of the Moon, Temple of Quetzalcoatl, Temple of

Tlauizcalpantecutli (fig. 51). This shows, with its colonnade (*vestibulo*), a striking similarity to the Temple of the Warriors, together with various features of the Temple of the Jaguars, as will be shown later. For convenience this will be called the main temple in spite of the fact that Mound C, to the southeast, will probably turn out to be larger.

Temple with Two Front Columns

The most common occurrence of triple-entrance or stoa type is in temples with a columnar vestibule.[19] There is a considerable variation in the plans of such edifices.

Chichen.[20] The single-room structure of this type will be taken up first. There are four with square columns (fig. 16), including the Lower Temple of the Jaguars. One has partially sculptured columns, suggesting that they may have been reset. There are three with round pillars, including the North Temple of the Big Ball Court. One (Str. 3E2) with square columns is at the southern end of a ball court behind the Temple of the Little Tables. Another (Str. 5C15) with round pillars is part of a larger complex, and has two atlanteans supporting the façade.

There is an interesting structure in this group with a lateral room entered from the main one (fig. 17). The latter has a door at the back, an unusual feature. Both rooms have a blocked doorway.

The same plan but with a shrinelike compartment is noted in three structures. One, The Temple of the Owls (fig. 18), has square columns. Both the main entrance and the one to the shrine have pilasters and jambs. One of the two buildings with round columns (Maudslay's No. 6, fig. 19) has two pillars with capitals. Each is enclosed within a square construction to strengthen it, and a third round column was built under a broken lintel.

The most common example of the stoa or columnar type of entrance is the one with a room behind the vestibule. There are about 10 of these with square columns, including two in the Chultun Group. One in the Northwest cluster (fig. 20) has a shrine and two columns, the drums of which have been reset in an unnatural order (Ruppert, 1952, fig. 117,*b*). It is worthy of note that the side walls do not make the usual turn at the front of the building, a plan seen sometimes at Mayapan.

Another building (fig. 21) contains the remains of a masonry altar which "has the appearance of having been built after the collapse of the building."

Structures of the same type but with plain round columns also number about 10. One, the Temple of the One Lintel (Str. 7B1), has incorporated an earlier hieroglyphic lintel over an inner doorway (Ruppert, 1952, fig. 149,*d*). The Temple of the Jaguars is of this type but with feathered-serpent columns. Str. 3E5 also has the same kind of pillar.[21]

A variation is seen where the inner room is divided into three chambers, with entrances to the side rooms from the back center apartment. The so-called Castillo of Old Chichen (fig. 22) is an example. It has columns and jambs decorated with a floral design and a panel in the facing of its pyramid, remains of which show part of an eagle, above which there is a molding with serpents (Ruppert, 1952, fig. 142,*c,d,e*). Str. 2C8 belongs in the same group.

In Str. 2C1 is a somewhat similar plan with columns sculptured in front with serpents (fig. 23). Each of the back rooms has its own entrance into the vestibule. Both of the side walls of the inner room enclose a pillar. In the debris about the building are roof ornaments in the form of serpent rattles, a standard bearer, three serpent heads from a molding, and remains of masks (Ruppert, 1952, fig. 117,*c,d*). This and Str. 2C3 have already been mentioned as forming two sides of a court.

There is one single-room pillared temple (fig. 24), with a line of four round columns running down the middle of the room. This device of widening a room has already been mentioned. It shows a kind of altar at the back and a circle of stones set in the floor which "suggest a firebox." Str. 3D6 originally may have shown the same plan.

The vestibule with serpent columns and a line of four sculptured pillars down the center of the inner room are seen in the Temple of the Big Tables (fig. 25). Here the jamb and the pilaster are at the side of the main entrance and at the doorway to the inner room. A continuous "table" of flat stones, supported by pairs of atlantean figures, runs along the back wall of the shrine.

The same general plan is seen in the Temple of the Sculptured Jambs (Str. 4B1) where the square entrance columns and the jambs, as well as the four interior ones, are carved. There is a "sacrificial stone" or altar between the entrance pillars and an altar in front of the building.

Str. 4B16 shows the same plan, with jambs and the two outer and the four square columns sculptured. In Str. 5B9, of similar plan, the two entrance columns and the four inner ones are round and, as in most cases, unsculptured.

In Str. 5D1, a pyramidal building, a second line of square pillars is added in the inner room. The entrance columns are also square but, here, unsculptured. Two serpent heads with tenons were found at the top of the stairway but not *in situ*.

In the pyramidal Temple of the Little Tables (fig. 26), there are serpent heads at the base of the balustrades, serpent columns, jambs and pilasters with a line of four square columns in each chamber, all of which carry bas-reliefs. Along the back of the inner room was a continuous table-altar. There was also a chac mool in front of the building. At either side of the stairway, on the ground level, is a porticoed structure, which will be described later.

Another type of pyramidal temple is the High Priest's Grave (fig. 27). This has a stairway on each of the four sides, one of which has balustrades sculptured with intertwined feathered serpents, both a head and tail at top and bottom. At the top, on the east side, are feathered-serpent columns which lead into a corridor with a single doorway on the other three sides. The shrine has four sculptured columns supporting the vaults. The southeast column has a perplexing hieroglyphic inscription, already mentioned. There are several miscellaneous sculptures associated with the structure (Ruppert, 1952, fig. 120; Thompson, 1938). In the shrine room is the opening of a shaft leading to a burial far below the base of the mound. This kind of grave is found at Mayapan.

The famous Castillo (Str. 2D5) has serpent columns with three entrances to a portico leading into an inner room with two sculptured square columns supporting three parallel vaults. There are sculptured pilasters, jambs, and lintels. There is a corridor on three sides of the shrine, not connecting with it but entered through a single doorway on three sides. The vault at the south corners of the corridor makes a turn which is an achievement of construction.

A single room with one door, surrounded on three sides by a corridor the ends of which open in doorways on the front wall, is seen in figure 28. Under the central chamber are the remains of a vault of a lower room.

One temple (fig. 29) shows an unusual entrance of three round columns, another row of three in the outer room, and two rows of three in the inner chamber.

There is an interesting structure (fig. 30) with an entrance on the south between two square pillars to a chamber leading to an inner room. There are two ranges of two rooms each on the east and west, entered at the ends of the buildings.

The structure shown in figure 31 has a somewhat similar plan to the one just given but with a difference in the entrances to the rooms and in columns in the center apartment. "At west side of the terrace are portions of two large Atlantean figures, including two torsos and one head; a collection of capitals and column drums" (Ruppert, 1952, p. 86).

A structure with eight rooms, one with a stoa entrance and another with two interior columns (Str. 5B6), is difficult to place. "Veneer-type vault stones," wall stones "not carefully worked," "many drums in late wall," and "not much weathered" make it probable that it belongs in Chichen III. Some jambs are sculptured.

Variation of the two-column entrance to an inner room with two lateral ones where there was an entrance to the first room of each pair from the side is unusual (fig. 30).

Another (fig. 31) has a center room with center columns, a room behind, two side rooms entered from the one with pillars, and two rooms in front each with its own door.

Mayapan. [There are at least two distinct types of temples at Mayapan with a two-column doorway, not including the principal temple, which has a plan similar to that of the Castillo at Chichen Itza. The first type is a pyramidal temple with a single stairway and serpent- or grotesque-figure columns. There are four of these in the main group: Strs. Q-58, -143, -159, and -218. Strs. Q-159 and -218 are one-room structures. Str. Q-143 has a narrow front vestibule in addition to its main room; Str. Q-58 has an interior shrine, and a burial shaft through its substructure. Of lesser importance are Strs. Q-82, -55, -88, -153, -158, and -202, which represent a type with two interior piers sometimes connected into a shrine. Strs. Q-141, -148, -155, and -201 are other small temples with two-column doorways. Str. Q-95 has a unique plan. Its triple entrance is formed by two square masonry columns. Originally a one-room building, it was later divided by a partition into two rooms.—T. P.]

East Coast. Three two-column temples are found at Tulum [22]; others occur at Playa del Carmen, San Miguel, El Meco, Nohku Point, Chacmool, Palmul, and other sites. In the first three, the kind of temple under discussion has a sanctuary. No columns are found at Tancah.

In this region there is a double-room structure slightly different from any found at Chichen. The wall separating the two rooms has three openings into the inner apartment. This is noted on a structure at Mugeres Island (Holmes). At Chacmool two temples of the same type are pictured by Lothrop, but each one has a double-column entrance.

Coba. Here are no buildings with columns except one doubtful case which may show a typical Toltec two-chambered, stoa-type temple, and a single-room structure of the same general type with a shrine at the back.

Guatemala highlands. In late sites at Zaculeu, Rabinal, and many others noted by A. L. Smith, the single-roomed temple with entrance formed by two square columns is commonly found. The double stairway is a feature of many of these temples erected on pyramidal mounds. There are few vaults found in this region. In one site, Chuitinamit, are two temples of the type just described on a single mound, with three stairways on the front and back and one at either end.

At Tepoxte, in the Peten, there is a temple with two columns, more properly piers, at the entrance, and another two behind the first and second room (Maler, 1908a, p. 59). At first sight these seem to be square columns similar to those just described at Chichen.

Mexican sites. The triple doorway formed by two columns is fairly common in central Mexico.

Teotihuacan. The earliest examples are probably those at this Classic site where there are four of these buildings centered on a court (Batres, 1906). At Atetelco, nearby, three columnar structures face a court in the center of which is an altar. These buildings have roof decorations (Villagra Caleti, 1951).

Valley of Mexico. The latest structures of this columnar type are, according to Marquina's restoration of Tenochtitlan, the two joined temples of Tezcatlipoca, and that of the Sun (see fig. 410).

The last three of the series of double temples at Tenayuca each had two rooms, the outer with an entrance made by two square columns. At Huexotla there is a structure with an entrance of round columns and an altar in the inner room (Batres, 1904).

Tula. The main temple has an entrance formed by two serpent columns (fig. 51). The parallel here with the Temple of the Warriors and many features of the Temple of the Jaguars has already been pointed out. It is possible that the great pyramid to the southeast (Mound C) has affinities with Mound B.

Calixtlahuaca. In the last period of the circular temple here, and also at the Tlaloc temple, there are two square columns before the few steps which lead up to the main stairway.

Malinalco. At one of the rock-cut temples there are two square pillars at the entrance to the outer room and two in the circular room behind.

Xochicalco. The main structure here probably had an entrance formed by columns. Edificio A shows a temple with pillars and shrine. In B, which is called "El Palacio," there is also a columnar entrance and a door in the back wall of the room (Marquina, 1951, pp. 139, 142).

Teopanzalco. In the latest period of the temple there are two structures, each with a *talud*, one with a single entrance and two rooms, the other with a single chamber. There are columns outside the wall at the four corners, evidently to support the thatch.

Tepoztlan. Here a temple has an entrance made by two square columns, which are sculptured. There is a firepit in the outer room; an idol on a pedestal is reported in the center of the inner bench.

Tizatlan. The "palace of Xicontencatl" here is in bad repair. Part of a stairway is noted and an altar at the back. Few walls remain but there are two half-columns toward the front, 1.40 m. in diameter, behind which are the two important low flat altars with fresco painting. Behind each of these are two other half-columns, 0.82 m. in diameter, all of which probably supported

a thatched roof. The designs on the altars will be considered later (Noguera, 1927).

Tajin. The Edificio of the Columns in the group called Tajin Chico has a stairway on the east flanked by three columns on either side. Building B has two lines of three oblong pillars each and an extra one to sustain the roof beams (Marquina, 1951, pp. 422–50).

Misantla. The Temple Mayor, the thatched roof of which was set on fire by the Spaniards as related by Bernal Diaz, shows four successive periods of occupation. In the latest structure, there are two square entrance columns in this pyramidal structure, an inner room or sanctuary and two lateral rooms. At either side of the stairway on the ground level is a small stairway leading to the low platform on which the main pyramid stands. At either side of the steps is a round column. As noted by Marquina (1951, p. 464), the basement story is unlike anything else found in central Mexico. The same would apply to the lower structure of Las Chimeneas.

Cempoala. There are several structures here which have an entrance formed by two square columns. One has pillars both in front and in back of the temple.

Portico or Gallery

When more than two columns in a single line form the entrance to a building, we have called the structure a portico or gallery.[22]

Possible function. In the early Spanish accounts there is no sharp distinction between the kind of house occupied by the priests and that by the lords. This residence, from Toltec-Maya times onward, is probably either the portico or gallery, with a wall on three sides and a row of columns along the front, or the colonnade, commented on in the next section.

Lords' house. After describing the domestic house and its center wall dividing it lengthwise and pierced by several doorways opening into the back of the dwelling, where they have their beds, Landa seems to be discussing the portico when he writes (1941, p. 86): "And the lords have their walls painted with great elegance; and this half [the front] is for the reception and lodging of their guests. And this room has no doors but it is open the whole length of the house. . . . The common people built at their own expense the houses of the lords; and as (the houses) had no doors, they considered it a great crime to do harm to the houses of others." [24]

Priests' house. In the discussion of the plans of buildings in the Classic period, we noted the association of the pyramidal temple with a structure containing a number of rooms. The latter building has, without much evidence, usually been considered a residence for clergy. We have seen buildings of this type (figs. 6, 7) in Chichen I, but not in relation to any structure which is likely to have been a temple.

In the Spanish literature there is ample evidence for the portico, *portales,* or gallery as the residence of the clergy and, during religious observances at least, presumably of the lords.

At the time of the celebration of the rites among the natives of Guatemala, Roman y Zamora (1, XVII) writes, "No one sleeps in his house in all this time [of sacrifice] but in certain porticoes (*portales*) and houses which are near the temple (and) made for the purpose."

In Tenochtitlan, the temple enclosure is surrounded by a wall, of which Cortés in his Second Letter writes, "Within and all around this are very handsome buildings in which there are large rooms and galleries where the religious who live there are lodgers."

Representation in Mexico. The portico alone or in connection with a pyramidal temple is shown in several postconquest manuscripts in connection with Tenochtitlan.

In the drawing of the Great Temple in the Ixtlilxochitl manuscript (fig. 32) a gallery with roof ornaments is shown, on either side, at the base of the pyramid. In figure 33, from the Histoire Mexicaine, the pillared structure stands next to a pyramidal temple. A simpler drawing of a portico (fig. 34) is from a Manuscrit Figuratif.

Chichen. The simplest type of portico at this site is a single apartment, one side of which is usually composed of round columns. The northwest building on the main platform of the Caracol with four round columns is an illustration (Ruppert, 1935, pl. 348). Two of these porticoes, one of four and one of five columns, form two sides of the Toltec court on the southeast corner of the Monjas (Maudslay, 1889–1902, pl. 3). Another, of four square columns with lateral rooms, lies before the Temple of the Jaguar Atlantean Columns (fig. 43). One with four columns (fig. 35) forms the entrance to an inner room with two interior pillars. A four-column portico with four pillars in the interior room is shown in figure 36. The door between the two rooms is vaulted; a jaguar was found in the inner room.

There is a complex of two connecting structures (fig. 37) south of the High Priest's Grave. The one on the south is the interesting Temple of the Interior Atlantean Columns (Str. 3C6), which has a portico of four round columns and the remains of a bench on the west end. The plan of the inner room will be commented on in connection with its arrangement of two atlanteans with two round columns behind. To the northwest is the House of the Grinding Stones (Str. $3C_5$), containing a central room with two supporting columns. Martin (1927) suggests that this once had a timbered roof because no vault stones were found. This chamber was enclosed on the back and on part of each side by two rooms and a portico or colonnade in front.

Another structure (fig. 38) has three rooms, one behind the other, with a portico of four round columns which have been reinforced by being encased in a square pillar. To the south is the opening of a *chultun* with some pavement stones.

The Sweat House (Str. $3E_3$), to be mentioned later, has a portico of four columns.

Of considerable importance in the complex of the Big Ball Court is the portico or gallery at the open end of the playing field to the south. There are six sculptured square pillars.

Another structure has two rooms in line (fig. 39) behind a portico of six round columns. Walls stretch between some of the columns, probably a strengthening device. There is a third structure (fig. 40), with six round columns, benches along the back wall of the portico, and a small shrine room behind. A fourth building (Str. $3C_{10}$), also with six round columns, is on top of the east wall of the Casa Colorada ball court. The three-room Temple of the Turtle has two galleries of six columns each, one on the north and one on the south side (fig. 41). This plan is unique. Three of the columns on the north side have been reinforced. Vase-shaped stones and the figure of a turtle were found in the debris (Ruppert, 1952, figs. 65, 141,*b*).

Finally, there are two examples of porticoes with eight pillars. One (Str. 5C6) has three rooms at one end of the portico; the other (fig. 42) has indications of five rooms behind, entered through the middle chamber. On three sides of the building ran a serpent band; a stone ring was found nearby.

In the complex south of the House of the Phalli (Ruppert, 1952, figs. 86, 148,*c*) there is a court with a gallery of four columns at either end, a single-room columnar temple on the east side, and the Temple of the Atlantean Columns on the southeast. In the southwest corner is a structure called the Temple of the Snails or the House of the Shells (Str. $5C_5$), which has columns around three sides of a court. To the north of this, part of a Maya structure may be indicated.

Maudslay (1889–1902, pl. 2) shows a portico with eight columns east of the House of the Deer (Str. $3C_7$).

Porticoes in front of the patio type of building will be considered presently.

Pyramidal temple and its portico. In the Temple of the Little Tables (fig. 26) the portico or gallery on the ground level had at least four pillars, sculptured like those in the structure above. The stairway to the temple ran up to an extension of the upper plaform on the west, probably built over the portico.

In the somewhat similar Temple of the Jaguar Atlantean Columns (fig. 43) there was a gallery of four square columns, sculptured with warriors, and one or two lateral rooms. From the back wall there was a stairway leading up to the temple, which had an entrance composed of two free-standing atlantean figures and two forming pilasters on the jambs. These figures wear jaguar masks (Ruppert, 1952, fig. 143,*b,d*). In the inner room there were probably two square columns. From this shrine a room opened on either side. (The pyramidal temple behind a colonnade is taken up later.)

Mayapan. [There is no clear distinction at Mayapan between buildings with a portico and colonnades. All buildings which have a single row of columns belong either to the colonnade type or to the domestic type of structure. The domestic type is distinguished by its rear room or rooms and by benches in the front room between doorways leading into the rear compartments. The better residences usually have four columns in the front entrance and, often, a transverse room at one end.—T. P.]

East Coast. At Tulum there is a gallery (Str. 25) with an entrance formed by six columns leading through three doors into an inner room with sanctuary. This has its own entrance at the back. As will be noted, the colonnade is the most common type of columnar structure here.

Guatemala highlands. In Zaculeu, Rabinal, and many of the highland sites the gallery or portico is present, with three, four, six, or eight columns.

Tenochtitlan. A portico at the foot on either side of the stairway of the main pyramidal temple (from the Ixtlilxochitl manuscript) is shown in figure 32.

Colonnade

Possible Function. It seems fairly obvious that when religious observances necessitated the presence of many people in addition to the priests, the rites must have been performed in some more or less public place, such as a court, for in the usual temple the space was constricted and, furthermore, the top of a pyramidal structure was not easily accessible. The public ceremonials may have included baptism, puberty rites, and various occupational rituals, all undertaken in presence of laymen. On the other hand, the rites for divination, rains, the general welfare of the community, and the katun and new-year ceremonies may have been celebrated by the priests within the seclusion of the temple. (See Tozzer, 1941, pp. 322–33, for outline of Maya rituals.)

In so far as Chichen is concerned the situation is somewhat difficult to understand. With almost no real courts here, it is distinctly possible that the colonnade associated with the pyramidal temple may have been the place for communal observance of certain rites. The portico as well as the colonnade may have served as a public place of worship. Both, as already noted, could also have been priestly residences.

The fact may be of no significance but the references given by Landa to driving away the evil spirit are, in most cases, in relation to rites that are occupational and often held in the court of the temple, in the house of the lord, or in the house of a hunter, places commonly given over to secular uses and needing to be consecrated when used for religious purposes.

Chichen. It is probably not possible, from the functional point of view, to make any great distinction between the portico or gallery (one row of columns across the front of the structure) and what is commonly called a colonnade (more than one row of pillars). The latter structure is usually enclosed by a wall on three sides, and in most cases the roof appears to have been vaulted. This was an element of weakness as the side thrust of the roof stones usually caused the whole top to fall. In some cases, attempts were made to strengthen the pillars to prevent a collapse, as we have already seen in the portico.

Distribution. The colonnade is much less widely scattered over the whole site than is either the temple or the portico. There are over 20 of these structures, more than half of them around, or in close proximity to, the so-called Court of the Thousand Columns. This might be interpreted to mean that colonnades were mainly secular in purpose, around the assumed business or market center of the site. They seem to belong generally in Chichen III and, as we shall see, are common both at Mayapan and on the East Coast.

One of these, on the northwest side of the Court, is the West Colonnade (fig. 44). This does not face east, as might be expected, but toward the plaza of the Castillo.[25] According to Morris (1931, p. 172), this assemblage of columns is older than the Castillo, possibly making an exception to the statement above and belonging in Chichen II. North of the Court is the North Colonnade joining that of the Temple of the Warriors. Along the east edge is a series of temple and pillared structures beginning with the Northeast Colonnade and ending with the Southeast.

Varieties. There is the greatest difference both in the number of rows of columns and in the number of pillars in each line. When there is a short wall at the front corners of the building made by an extension of the side walls, the number of pillars in the outer rank is usually two less than those in the inner lines.

It is difficult or impossible, if accuracy is maintained, to classify the colonnades. Without considering minor variations, in-

cluding the usual fact that there are fewer columns in the front row, we have the following rough count:

2 rows ×	4 columns:	Str. 5B5; 3 in Str. 3C15 (Caracol Annexes)
	6	Strs. 5C2, 3E4, 3D13 (Xtoloc Temple)
	10	Strs. 5A1, 3D7, 2B1 with shrine and two columns
	11	Str. 5B13
	14	Str. 5A2 (+ 2 × 3)
	18	Str. 3D5
3 rows ×	6 columns:	Str. 3C16 (Temple of Wall Panels)
	9	Str. 2D8 (Temple of the Chac Mool)
4 rows ×	8 columns:	Str. 3D9 (Thompson's Temple)
	16	Str. 2D8 (Temple of the Warriors)
	49	Str. 3D1 (+ 4 × 8)(West Colonnade)
5 rows ×	10 columns:	Str. 3E1 (Northeast Colonnade)
	10	Str. 3D7 (− 4 + 2)
	42	Str. 2D10 (+ 5)(North Colonnade)+?
9 rows ×	11 columns:	Str. 3D10 (+ 9 × 4)(Southeast Colonnade)

1. West Colonnade. The largest structure of this type has 228 columns, facing away from the great court on which it stands.

2. North Colonnade. The next (fig. 45), in number of columns, has about 210. Thirteen on the west end of the front row are square and sculptured; all the others are round and five are reinforced with square masonry. Various sculptured stones were found in the debris along with a painted capstone (fig. 616). There is one dais, and the break in the five lines of columns must, at one time, have been filled. The stones from the façade show that the structure must have had some connection with the Jaguar-Eagle cult.

3. Str. 3D7 (fig. 46) has round pillars distributed in three rear rooms, regular columns in front, and two at the entrance to a middle room. The last columns may originally have been part of a colonnade with six rows of pillars. The columns of the colonnade and of the entrance to the central chamber are sculptured.

4. Southeast Colonnade. This (fig. 47) is a good example of the same type where later walls connecting columns break up the space into rooms. Benches were added. Among the debris were a mask and a statuette, panels with seated figures, an astronomical band, and some eight atlantean figures (Ruppert, 1952, fig. 132,*b*,*c*).

5. Northeast Colonnade (Str. 3E1). This with 48 square pillars, has several walls connecting columns. On the façade there was a sculptured upper zone. Two cornices showed intertwined serpents with disks between the coils; serpent heads and tails were part of the design. Masks and shield panels alternated with grotesque figures on the façade. The two columns partially enclosed by the altar, and the two pillars directly in front, each had four sides sculptured with Maya figures (described later). There is a bench around three sides of the room (Ruppert, 1952, fig. 40).

6. Xtoloc Temple (fig. 48). This interesting structure has a colonnade behind which lies a temple with an entrance of two square columns to a shrine room, an altar, and a painted capstone. The four jambs on the doorways to the outer and inner rooms and the two columns at the entrance to the temple proper are sculptured (Ruppert, 1952, figs. 133–36). There are also benches in the colonnade. This is one of the structures where all except one of the figures are Maya.

7. Str. 3C12, south of the Casa Colorada, is a kind of colonnade of which there is very little standing (it has two stairways on the northern side). It is of primary interest in showing what seems to be a line of columns running in front of the building itself along the edge of the platform. This resembles in plan structures at Mayapan, especially one west of and another south of the Castillo at that site.

Pyramidal temple and its colonnade. The more common formal entrance in buildings of Chichen III is through a colonnade, thence by a stairway to the structure above. This combination was perhaps first seen in the Temple of the Chac Mool and its peristyle (Morris, 1931, pl. 3,*a*). Much of this was destroyed by the erection of the covering structure, the Temple of the Warriors, with its Northwest Colonnade of four lines of square columns (fig. 49). The stairway to the structure above starts, and occupies the space of four columns, in the back line of the peristyle. Both temples and the latter Colonnade are most important in establishing the relative chronology of many of the structures assigned to Chichen III.

The so-called Thompson's Temple (fig. 50), partially excavated by him in 1899–1900, consists of a colonnade of four lines of round columns with an altar at the north end. East of this dais is an unimportant stairway which leads to the temple above. This has an entrance of two round columns leading to a room with four columns of the same shape, beyond which lies a smaller room. There is no trace of a monumental stairway leading from the peristyle. A fresco with an indeterminate design was found during the clearing of the structure.

A fourth temple of this kind is the Temple of the Wall Panels (Str. 3C16), on a high substructure rather than a terraced pyramid (Ruppert, 1931). It shows many changes. The final plan has a colonnade of two lines of round columns entered by a portico of four. In front of this is a stairway which leads to the roof of the peristyle and thence to the temple on top. This structure has serpent columns, the back of the heads of the reptiles cut to fit the round pillars. The roof decoration, the two sculptured panels on the exterior side walls, and the carved stone tablet covering a cist are described elsewhere.

MAYAPAN. [The colonnade at Mayapan usually consists of two rows of columns which, in numbers, run from 4 to 16. There is a bench against the back and side walls interrupted in the center by an altar or shrine. Often there is a transverse room at one or both ends. Some colonnaded buildings face in two directions and have a medial wall with a doorway connecting the two rooms. In such cases one range usually has two rows of columns; the other only one. The columns are seldom aligned transversely, each row being independently spaced, apparently for carrying longitudinal beams. Roofs as a rule were of beam-and-mortar construction and in some cases of thatch.

The columns are uniformly round and have no capitals. Sometimes they were decorated with stucco figures in high relief. Occasionally masonry piers alternate with the columns. In Str. Q-153 these piers are elaborately decorated with stone masks in the Puuc style, apparently reassembled from stones of an earlier building.

There are 22 colonnaded buildings in the main group of Mayapan alone. Functionally they are probably similar to the colonnades at Chichen Itza, but stylistically they represent a separate though not altogether unrelated group.—T. P.]

EAST COAST. A map of several sites in this area duplicates, so far as colonnades are concerned, the collection of colonnades around the Court of the Thousand Columns at Chichen and the same sort of structure in the center of Mayapan. At Chichen most of the colonnades are vaulted, there are practically no vaults at Mayapan; most buildings of this type on the East Coast also have beamed ceilings.

Cancuen. On this island, south of Mugeres, is the greatest collection of colonnades on this coast. In Group I there is a colonnade with rows of 11 and 12 columns; another has a double row of four columns each on both sides of large central rooms. In Group II there are two colonnades, one of a double row of six and another of two lines of nine each.[26]

Tulum has a colonnade (Str. 21) with four entrances and eight central columns. The outer room leads into a long narrow inner chamber with sanctuary, a kind of inner cell unknown at Chichen in connection with a colonnade. The Castillo is a temple built over a colonnade which forms the second story of the structure, with cell-like rooms on the ground level at either side of the stairway.

Chacmool has a colonnade of four rows, two of which have 10 pillars. It is open on both sides.[27]

At *Culuba* in northeast Yucatan, east of Tizimin, there is a line of columns seemingly outside the structure itself, similar to what is found at Mayapan (Andrews, 1941).

SOUTHWEST CAMPECHE. At Isla Cilvituk A, there is a colonnade of two rows of four square pillars, open on both sides, a feature we have just seen on the East Coast. Most of the remains in this area are late, with neither stelae nor vaults. Yucatan slate ware is found, as well as an *incensario* of the Santa Rita type. The Diving God and the *brasero* link this region with the East Coast (Andrews, 1943).

TULA. The most important pyramidal temple now known here (fig. 51) presents many parallels with the Temple of the Warriors at Chichen. Both have colonnades, each with a bench at the back and sides and broken by a dais, two in the Warriors, one at Tula. From the back wall a stairway ascends to the temple, where there are two serpent columns and pillars in the inner and outer room. The type of decoration on outer and inner walls will be considered later. In the Tula structure there seems to be a dais east of the stairway. Marquina writes of two *tlecuiles* or firepits.

VALLEY OF MEXICO. Texcoco had a room around which there seem to be columns and, possibly, there was also a shrine. This appears on one of the Humboldt Fragments (VI) (Seler, 1893 [1904 ed.], pl. XI). At Coyotlatelco, Tozzer (1921, pl. 11) shows a room with the remains of pillars around two sides.

GALLERY-PATIO

There seems to be no literature on this structure.

CHICHEN. *Distribution and use.* There are 13 examples here of architecture which fall into this class. If their positions are plotted on the map, nine are found to occur either in a group of other buildings including at least one temple or near a temple structure. The association of the one in the Chultun Group is not known to me.

Thus it can be said that although every temple does not have its accompanying patio, practically every patio has its neighboring temple. This may perhaps be enough to suggest the use of the patio as a monastery. A use similar to that of the Calmecac of the Aztec, to be described later, comes to mind.[28]

The whole subject, however, of the use of any of the structures in Chichen III, other than the temple, seems still to be an open one.

Varieties. The complete complex of the so-called patio consists of a square courtlike structure with a sunken unroofed center surrounded, in most cases, by round columns which seem to have supported a wooden roof around the patio. Usually present and opening from the central space is a shrine or niche. The entrance to the interior is usually through a portico but sometimes through a colonnade. There is considerable variety in these structures.

One of the most typical (fig. 52) shows a portico and patio with a square sunken center surrounded by round pillars, and a cubicle or shrine opening off the patio on the east side.

The most elaborate example (fig. 53) is some distance southwest of the Castillo. There is an entrance colonnade of two rows of 20 round columns each, with an additional two rows of four pillars at one end, each with a rectangular capital. The doorway opens at the back into a patio with a depressed center, surrounded by 12 round columns. To the right is a colonnade of two rows of five sculptured square columns; opening on the left is a room with six round columns. There is no niche or shrine.

The one most fully described (fig. 54) has been mistakenly called "the Mercado."[29] It stands on a platform with a portico of 35 alternating square and round columns. The back wall of this spectacular entrance is frescoed, and has a bench running along the back and the two ends. There is a carved dais, with elaborate bas-relief, east of the entrance to the inner room. The doorway to the patio is marked by two pilasters, each showing three human figures with headdresses and ornaments but otherwise nude. There is a patio with sunken center surrounded by 25 round columns, unusually high (4.75 m.) and relatively small in diameter (ca. 51 cm.). There is no shrine here.

Another type is the patio and shrine with neither columnar entrance nor sunken center. The Temple of the Hieroglyphic Jambs has 32 round columns arranged around a square with a shrine on the east side (Ruppert, 1943). Another of much the same type (fig. 55) has eight square columns, two at each side with a round one at each corner. It also has a shrine on the east side.

Str. 2D6 has a colonnade of four rows of eight columns and a patio of five rows of four columns arranged around a sunken center. Str. 5B19 is somewhat similar. The portico has only five columns, the patio 20 pillars around the square sunken place (Ruppert, 1943).

Str. 5D3 shows a porch of eight round columns with a large room behind with no remains of columns or the depressed space.

There is another building which belongs here. From a probable colonnade there opens, through two square columns, a narrow room beyond which there is an open square space much like that in Str. 5D3. Farther on, on the east side, are two more square columns, another narrow space and a two-room temple or shrine (Ruppert, 1943).

Among others of the type are Strs. 3D3, 5C11, and one in the Chultun Group.

It is observed that wherever there is a shrine (with one exception) the building faces west and the shrine is on the east side of the patio, opposite the entrance. One of three structures (Str. 5D3) facing north has a shrine on the east side. Of the eight structures among the immediate ruins of Chichen, in addi-

tion to the three just mentioned, six face west, one east, and one south.

MAYAPAN AND EAST COAST. Whereas the pillared temple, the portico, and the colonnade are all abundantly represented both at Mayapan and on the East Coast, up to the present the patio type has not been found either at these two places or anywhere else in Yucatan or at Cotzumalhualpa.

TULA. Edificio 1 (fig. 51) to the east of the main temple had a central patio once surrounded by 12 square columns. "So far," writes Ruppert, "there does not seem to be sufficient evidence to suppose that this is the patio or gallery-patio type of structure." Edificio 3, Sala A, to the west has a center surrounded on all four sides by two rows of round pillars. There is a bench on the four sides and what seems to be a kind of altar on three sides. To the west another room has just been found (Sala B). This has a bench with painted bas-relief on its front similar to that seen in the "Vestibule" or Colonnade of the main temple.

VALLEY OF MEXICO. At the site of Tlamimilolpa, near and contemporaneous with Teotihuacan, Linné (1942, p. 105) found two rooms, each formerly with four square pillars which once supported a roof with an open center below. This was a sunken floor. One drained into the other and thence outside.

LA QUEMADA (II) has a large court with pyramid on the west. To the west is a structure with about 11 columns arranged around a kind of patio. Functionally this probably does not belong with the Chichen type.

SHRINE OR ORATORY

There is another type of independent religious structure which does not seem to fit into any category already discussed.

EARLY AUTHORITIES. Landa (1941, p. 171) speaks of "the temples, sanctuaries and the houses for their lords." Again he writes (p. 108). "And besides the community temples, the lords, priests and leading men had also oratories and idols in their houses, where they made their prayers and offerings in private."

This distinction between the temple and the oratory brings out the fact that, in later times at least, the rites seem to have been somewhat personal and private in character. We read in Landa (p. 159): "Those who wished to make some (idols)" and again (p. 166) "the man to whom the idols belonged." In a *relación* (RY, 1: 52), "The common people also had private idols to whom they sacrificed, each according to his calling or occupation which he had." It is only in a few places that Landa gives us any idea that the various rites were actually performed in temples. He speaks of "the abandoned temples" and the burning of copal in them. In other words, the temple cult in his time seems to have been, to a great extent, done away with, and the lord's house seems to have taken the place of the temple.

Bernal Diaz, while with Cortés (1519) in Cozumel, writes: "In an Idol house there were some altar ornaments made of old clothes and some little chests containing diadems, Idols, beads and pendants of gold of poor quality. . . ."

Cortés in his Second Letter, writing of Texcoco, just east of Tenochtitlan says the city "may have had about thirty thousand households. There are in it, Sire, very wonderful houses, and mosques (temples) and very large and well built oratories."

After the conquest services in the temple are mentioned less and less, and the oratory seems to have become a part of the lord's house. The Bishop (p. 131) writes, in describing the preservation of the heads of the old lords of Cocom: "They kept these together with the statues with the ashes, all of which they kept in the oratories of their houses with their idols. . . ."

In the list of religious edifices there should be added the temporary shelters of straw which were built to house the manufacture of the new idols (Landa, 1941, p. 160).

LACANDON. Finally, today, we find these Indians with their *oratorios*, a secret house exclusively given over to religion, with the idols or *braseros* taken from the shelf and deposited on the floor of the hut during the observance of a rite. See Sapper (1891, p. 893) and Tozzer (1907, p. 92) for the *hermita* of the idols. The Catholic in the towns and villages has his own little shrine for his saint under the thatch of the house.

CLASSIC STAGE. The sanctuary or cell-like room in the center of the back wall of a temple has often been mentioned and is best represented by the famous temples at Palenque. This shrine is a small low cell with its own roof in the middle of the center room of the inner range.

CHICHEN. The building with a sanctuary most nearly corresponding in plan to that just mentioned at Palenque is Str. 2C1 (fig. 23). Others are Strs. 2C3 (fig. 20), 3C11 (fig. 19), and 5C7 (fig. 18).

The niche or small room usually found here in connection with the gallery-patio type of structure has already been described.

The inner room of temples like the Castillo or the High Priest's Grave, surrounded on four sides by other compartments, might also, perhaps, be called an especially holy place.

The shrine proper is more likely to be a single-room structure standing by itself. The best example at Chichen is probably the so-called Temple of the Initial Series (fig. 11). It is a building of one room, originally with three doorways. Str. 6E5 can also be called a shrine, as well, possibly, as the small structure at the very edge of the Cenote.

MAYAPAN. The sanctuary is found in temples, colonnades, and in houses here. This true shrine is most common at Mayapan and on the East Coast.

In writing about the independent shrine at Mayapan, R. M. Adams (1953, p. 148) speaks of the same basic plan for all of them: a single-room structure on a platform with a single stairway. He then considers first those which face a colonnade across a court as probably being connected ritually with the latter. A second group are more numerous and are imperfectly centered and oriented. They seem "to postdate one or more plaza floors or earlier fill and the sherd collections associated with them do not seem to represent anything but a late Mayapan period." A third group of mounds here "are independent of any larger complex and seem to have been scattered more or less at random over the open areas left between earlier and larger structures."

None is even vaulted, and the burial cist is common with these shrines. There is the suggestion that some of these may have been built, filled, and sealed before the erection of the shrine itself. [A small shrine with a crude vault, Str. R-89, has been uncovered in one of the better residential groups immediately east of the ceremonial center of Mayapan.—T. P.]

At the base of one of the stairways leading to a small temple near Gateway H is a miniature shrine with narrow doorway. Its thin stone walls were constructed partly on the plaza floor (Shook, 1952, p. 249).

The introduction of idolatry, comparatively late, as has been shown, has a very direct connection with the appearance of the shrine. The large pottery *braseros*, so common in late Mayapan, all seem to show a relationship with the shrine.

There is thus a possibility that these sacred structures came in subsequently to Chichen III and hence are not common at Chichen. We know that some of the buildings on the East Coast are contemporaneous with Chichen IV.

EAST COAST. It is here that the small independent structure, usually with one, three, or four doors, occurs in any number. At *Tulum* it often stands on a low platform. Angel Fernandez (1941) shows an *adoratorio* here with an elaborate roof ornament.

At *Tancah* and *Xelha* it is on a relatively high pyramid. At *Cozumel* and Xelha it is usually vaulted and often built against the base of pyramidal structures on either side of the stairway.

Mugeres Island. Here the shrine has four doorways and rests on a circular platform with four stairways. At Cacakal there are four doorways to the shrine which has a second story. To support this the lower room is almost completely filled with a stone pier. The upper structure has a single doorway. This plan is by no means a common one.

COBA. This city, dating primarily from Classic times, has its own late period, corresponding to that on the coast. Here there are shrines; in some cases, at least, the stelae of the older period seem to have been relocated in the center of these small edifices or against the back wall. (See Macanxoc, Strs. IV, V, VIII, IX; Thompson, Pollock, and Charlot, 1932, p. 114.)

SOUTHWEST CAMPECHE. At Isla Cilvituk A, shrinelike structures seem to be as common as on the East Coast.

TRIBUNE OR PLATFORM

A low square stage placed usually in front of a temple or in the center of a plaza is a common feature. It is most often associated with structures dating from Mexican times. Approached by a stairway on one, two, or four sides, it may serve as an altar or place for sacrifice and offerings, as a stage, and as a dance platform. Excellent stepped tribunes are shown on the Bonampak frescoes.

PUUC. *Uxmal*. In front of the Governor's House a platform has been reported (Saenz, 1952). Beneath the floor lay a cache containing jade and coral beads, a jade pectoral, and remains of five alabaster vessels. The presence of marble vases seems to indicate a date in the relatively short Mexican period at this site and contemporaneous with the Toltec stela here (see Borbolla, 1953, fig. 93).

Kabah. On the platform of the structure known as the Codz Poop was a small *adoratorio*, decorated with bas-reliefs, including calendrical glyphs (Moedano, 1952). The tribune is of considerable interest as it recalls the one at Uxmal. Without the glyphs it would be placed in the Mexican period, agreeing with the jambs of the main structure which show Toltec figures.

CHICHEN. Mausolea I and III (Strs. 2D3 and 2D4) are excellent examples of this type of structure, often called a "theater." To be described later, they are among the few edifices mentioned by Bishop Landa (1941, p. 179): "At some distance in front of the staircase on the north [of the Castillo], there were two small stages of hewn stone, with four staircases, paved on the top, where they say that farces were represented, and comedies for the pleasure of the public" (Tozzer, 1941, note 943).

In front and east of the High Priest's Grave are two platforms. The first (Str. 3C2) is badly mutilated but it had a paved top. The second (Str. 3C3) shows a "stage" with battered sides and four stairways with serpent heads, probably at the top of each pair of balustrades (fig. 56). Serpent heads are often found with this type of structure.

Another tribune with four stairways (Str. 3C8) shows "a circular area in the center which . . . supports a cylindrical stone" about a meter in diameter. There are numerous worked stones on the platform and, starting at the northeast corner, there is a stone-paved way perhaps leading to the House of the Deer (Str. 3C7).

In the Northwest Group there is an altar-mound in the center of a court with four structures.

A platform (Str. 3C17, Maudslay's No. 2) west of the Temple of the Wall Panels seems to belong to the same type. Serpent heads lay at the base of the east stairway.

In the perspective view of the Big Ball Court and northward to include the Cenote of Sacrifice, Marquina (1951, p. 857) shows structures lining both sides of the Sacred Way, starting northeast of Mausoleum II. These may be tribunes. They are not noted on any maps of the site.

Court of the Thousand Columns (fig. 57). Scattered over this large area are numerous "constructions," of which Ruppert (1952, pp. 73–74) describes 58. They are raised slightly (about 60 cm.) above the level of the court and are generally outlined by stones from the cornice, the wall, and the vault of previous buildings. Sculptured pieces and drums of columns are also used. At one place five stone rings are set in the floor of the court. All this construction seems to belong in Chichen IV.

MAYAPAN. Few of the many small platforms have been investigated. On one, however, we have information (Adams, 1953). Str. Q-77, north of the Castillo, is a tribune with 11 or 12 superimposed floors. In its earliest phase it had a stairway with balustrades on each side. It has the "typical Mayapan masonry in the lower courses [which] gives way near the top to a narrow, projecting molding and better-finished stones resembling those used in the Puuc style of architecture." The author speaks of the vertical block of stone at the top of the balustrade, a feature already commented upon. Str. Q-77 immediately suggests Mausolea I and III and Strs. 3C3 and 3C8 at Chichen.

At Gate O, Shook (1952, p. 15) reports a platform which supported an unsculptured stela. A circular platform here is described below under Round Structures.

A crudely circular platform (Str. Q-84) with a circular cist at one side has been described by Adams (1953). Its original diameter was about 5 m. In the second enlargement, stairs were built on the east and west sides. There was a constant succession of changes. Several large stone monuments appear on the surface of a neighboring structure. The hypothesis that these originally stood on the platform could not be determined.

EAST COAST. The platform mound is common in this region. One type is relatively high and has two stairways. Lothrop suggests that it was probably used primarily for religious spectacles. The second variety has a single flight of steps and may have a small shrine at the top or masses of rectangular blocks of stones. We are told this type often contains vaulted tombs.

At Tulum the tribune occurs in the center of the two main courts. The first has a stairway at front and back, the second on one side only. It is also found in the center of the main plaza both at Xelha and at Tancah.

Guatemala highlands. The extensive survey made here by A. L. Smith in 1951 proves the platform mound to be very common. The stairways, as in many of the other structures in this area, are a very important feature. In this type of mound they occur in many forms: a double set of steps at the front, stairways at front and back, stairways on three and on four sides, a double set in front and a single flight on either side. In one case, at Pichec, there are two stairways on each of the long sides and one at each end. Sometimes the lowest steps are flush with the face of the mound.

Thompson (1943, p. 125) points out that the platforms "correspond in size and probably in function to the offertory shrines known in Mexico as *momoztli*."

At Chutixtiox, near Zacapulas, there is a platform with a sunken panel, a feature noted at Chichen.

Tula. The *adoratorio* in the Plaza Central, a platform with a stairway on four sides, seems to be a structure very similar in plan to that of the Chichen Mausolea I and III. Two other features are found in connection with these structures in both places, the usual *talud* and the presence of a chac mool. Also here was discovered a stone on which was sculptured the lower part of an elaborately caparisoned individual (Ruz, 1945a, fig. 52; Marquina, 1951, p. 159).

Central Mexico. *Calixtlahuaca.* In front of the Tlaloc temple, there is no tribune but a cruciform structure with a wall in a half-circle. The outside is decorated with red *tezontle* and crania.

Tepoztlan. A square tribune stands in front of the stairs of the temple, in the center of a court. It may have had a stairway on the four sides.

Tenochtitlan. Various platforms shown and described in the early accounts. The platform on which rested the *temalacatl* or "gladiatorial" stone is a good example. An Aztec warrior had a combat here with a prisoner of war who, although armed, was tied to the stone. Several other tribunes are shown in the attempts to reconstruct the sacred precinct of the city.

Veracruz. *Tajin.* In the plaza formed by the main pyramid is a tribune, of which the face is carved (E. Spinden, 1933, p. 233).

Misantla. There is a platform, longer than wide, with stairways on the four sides.

Cempoala. A small four-stairway structure stands in front of the circular temple of the Dios del Aire. There is a similar one in connection with the Temple of Las Chimeneas.

La Quemada. This hill site in Zacatecas has the remains of three great pyramids, in front of each of which is a rostrum. The ruins here are almost certainly pre-Toltec.

Monte Alban. In the center of the Northern Platform is a tribune with two stairways (Borbolla, 1953, p. 137). There are also others here.

Vapor Bath

In Chapter IV, in the part devoted to ceremonial purity, mention is made of the widespread idea, shared by many peoples in the New World, of the use of sweating as part of religious ritual, to rid oneself of evil.

Classic stage. In the Maya area the type of structure called the "sweat bath" was first reported at Piedras Negras, where six buildings of this character have been partially excavated (Cresson, 1938; Satterthwaite, 1952). Satterthwaite uses the terms drain, sink, sunken doorway, sunken passage, steam screen, fire chamber, fire box, fireplace, cold and hot air flues in his descriptions. In only a few other sites has this type of structure been definitely located.

Chichen. Two, possibly three, buildings used for vapor baths have been found here. One (fig. 58) is fully described with plans and illustrations by Ruppert (1952, pp. 82–83). This sweat house may have been resorted to by players who used the ball court just to the north.

The building has a portico; it also has a bench along the back wall (except for the doorway to the inner room) and around the ends of the apartment, although part of it was covered at one point by a later altar. A subsequent bench on the north end of the gallery was built over the earlier one. The second room is the "steam chamber"; a bench lines either side, with a ventilator above. Behind is the fire chamber with the fire box.

The second structure of this type (Str. 3C15) is part of the South Annex of the Caracol (Ruppert, 1935, pl. 349). Here, also, is a portico in front of the "steam room" with its benches at either side and the fire chamber behind.

The shrine on the edge of the Sacred Cenote may also be a sweat house for the purification of the victims who were subsequently thrown into the well as a sacrifice to the rain gods (fig. 59).

Codices. The Aztec word for a sweat house is *temazcalli.* The structure is perhaps best shown in the Magliabecchiano 77. It is also found in other manuscripts, such as Vaticanus B 12, Borgia 13, and Sahagun, bk. XI, cap. VII, § V (see also Krickeberg, 1935).

Modern examples. Many of the Mexican villages today have sweat houses in actual use for therapy and for cleanliness. They are found among the Tzeltal of Chiapas, in northern Guatemala, and in British Honduras (Cresson, 1938).

Round Structure

To the long list of features connecting Mexico with the Maya area we must add the round structure. It appears, along with most of the other characteristics common to both regions, in the Tula-Toltec period.[30]

Quetzalcoatl. The round building presents several problems. From accounts of early authorities and from representations of circular structures in various codices, it has been assumed by many that, wherever such a building is found, it should be ascribed to the worship of Quetzalcoatl. This thesis is no longer held; research in Middle American archæology has brought to light round buildings which show definitely no connection with this god of the Toltec. Malinalco in the state of Mexico, for example, has round chambers cut into the cliff, which are clearly connected with the cults of the Dead Warrior or the Jaguar-Eagle.

Chichen. The main building of the Caracol is one of the most outstanding of all round constructions (Ruppert, 1935). By reason of its hieroglyphic inscriptions, the character of its masonry and of several decorative features, it is usually placed in the Yucatan-Maya period or "very shortly after the close of the Initial Series period" (Thompson, 1945). It is surrounded on almost all sides by additions dating definitely from the Toltec-Chichen period.

A second annular building is the Casa Redonda, about 1 km. east of the center of Chichen (Pollock, 1936a). It was undoubtedly a thatched affair and is very late, possibly in Chichen IV, after about 1460.

Two other ruins at Chichen, Strs. 2B3 and 3B1, are noted by Pollock as circular; both may be placed chronologically with the building just described. Neither is mapped by Ruppert.

Just in front of the wall of Str. 1D2 (fig. 15) there is a separate unit consisting of a circular chamber, 4.5 m. in diameter. It has one re-used sculptured stone in the wall facing.

Mayapan. At least four circular constructions have been reported from this site. One of these was mentioned by Landa (1941, p. 25): ". . . and they built another building of a round form, with four doors, entirely different from all the others in that land. . . ."[31]

East Coast. Circular structures have been noted at Tulum, Paalmul, Xelha, the Isla Mugeres, Tancah, Muyil, and other sites. Poole (1940) has reported one at Coba.

Other Yucatan sites. On Pollock's list are Ake, Uxmal, and Saccacal. Landa (p. 176) mentions a "rather tall round building" at Tihoo or Merida. Thompson (1951) reports a mound with a circular wall at Caucel near the highway between Merida and Sisal.

Central America. Pollock notes round buildings in British Honduras, in Chiapas (Palenque), in Guatemala (Utatlan and Chocola); in Honduras, Salvador, Nicaragua, and Costa Rica he lists 12 more of the same type. Zaculeu has a round addition to a quadrangular structure similar to those at Cempoala.

Mexican sites. There is a round structure at Calixtlahuaca with four different epochs represented. Perhaps the most famous of all such structures are the rock-cut circular chambers (I, III, VI) at Malinalco. Four more are in the Tarascan area.

There are several noted at Cempoala in connection with a quadrangular building similar, as pointed out by Marquina, to the *yacatas* of Tzintzuntzan and of Ihuatzio of Michoacan. At Tamposoque, San Luis Potosi, there are other structures of the same type (Du Solier).

In the Huasteca several round structures are reported. Others are known in the Zapotec area, one at Monte Alban.

Astronomical Observatory

The accuracy of the astronomical knowledge of the Maya has been proved by certain aspects of their hieroglyphic writing. The Venus almanac in the Dresden Codex is discussed in another place. Certain structures or groups of structures have been classed as places for the study of celestial phenomena, such as "sun dial" at Copan (Spinden, 1930), Group E at Uaxactun, and the Caracol at Chichen (Ricketson, 1928). The data on these observatories have not been entirely verified.

In several of the Mixtec manuscripts a mode of observation is pictured. In the Bodleian 32, the head of a man, in the doorway of a temple, is making observations by sighting over two crossed sticks (see Nuttall, 1906).

Ball Court and Game

In Middle America courts are fairly well distributed spatially and chronologically. Here we are primarily interested in the game and its players in Toltec times. As shown in the numerous bas-reliefs, the ritual in connection with the game is religious and, seemingly, in many cases, closely connected with the Jaguar-Eagle cult. This will be considered later in Chapter III-10.

Domestic House

As far as can be made out, the thatched-roof house of the present Maya seems to be very similar to the ancient dwellings.

Early accounts. References have already made clear that the houses of the lower class were removed from the center of the town. Herrera (4, 10, III) tells us: "In the middle of the places they had the pueblos and near them the houses of the lords and priests and important people, and further away those of the common people."

Landa (1941, p. 171) writes of the building of the various structures:

> . . . wherever they settled they always built anew their temples, sanctuaries and houses for their lords, according to their custom, and they have always used for themselves wooden houses covered with thatch; or again, it may be that the great abundance of stone and lime and of a white earth, excellent for building, which there is in this country, has given them an opportunity of erecting so many buildings, that except to those who have seen them, it will seem to be jesting to tell about them.
>
> [The Bishop continues (pp. 85–87):] The way that they built their houses was to cover them with straw which they have of very good quality and in great abundance, or with palm leaves, which is very well fitted for this, and they have very steep slopes, so that the rain water may not penetrate. And then they build a wall in the middle dividing the house lengthwise, leaving several doors in the wall into the half which they call the back of the house, where they have their beds; and the other half they whitened very nicely with lime. And the lords have their walls painted with great elegance; and this half is for the reception and lodging of their guests. And this room has no doors but is open the whole length of the house; and the slope of the roof comes down very low in front "as a protection against sun and rain" [Gates translation]. And they say that this is also for another object, to control their enemies from within in time of need. The common people built at their own expense the houses of the lords; and as (the houses) had no doors, they considered it a grave crime to do harm to the houses of others. They had had a little door in the rear for the necessary service, and they have beds of small rods and on top a basket-work *sevillo* mat on which they sleep covering themselves with their *mantas* of cotton. In summer they usually sleep in the whitened part of the house, on one of those mats, especially the men.

Modern investigation of ancient house sites at Chichen (Wauchope, 1938, App. A) bears out several points made by Landa. In description of the remains of houses at Chichen, no mention seems ever to have been made of benches that may have served as beds. These do occur, as we shall see at Mayapan. The hammock is now the universal sleeping place in Yucatan.[32]

Chichen. In the fresco of the Temple of the Jaguars, especially in the battle over the Maya village, the thatched hut is clearly shown (fig. 60). In the same painting both the Maya house and the rounded-roof structure (fig. 61) presumably of the Toltec, appear.[33]

Thatched-roof structures also are shown in the village scenes (fig. 62) on the Temple of the Warriors fresco. The porch, corridor, or portico can also be detected here. The late fresco in the Monjas (fig. 685) should also be noted.

On the bas-relief of the North Temple of the Big Ball Court, the Maya dwelling appears three times, once beside a temple.[34]

Mayapan. [The typical houses at this site have already been described in Chapter II-8. In addition to the typical dwelling unit there are many small structures of various plans, usually

containing benches. A small round type of structure has been observed in connection with house groups.—T. P.]

MEXICO. The situation here in respect to the nonreligious structures is quite different from that in the Maya area. In many of the important sites complicated plans, each consisting of many rooms, are not uncommon. At Teotihuacan, Tetitla, Group Viking, Xolalpan, and others in the vicinity, seemingly domestic structures were found often with a court and central altar (Marquina, 1951, p. 94, after Linné).

At *Tula,* Edificio 2, and the palace at El Cielito, two houses near the Cerro del Tesoro and those reported by Charnay are probable examples of secular buildings (Marquina, 1951, p. 156; Ruz, 1945a, p. 57).

Calixtlahuaca, with its great court and complicated system of rooms, is a late example of a complex fundamentally domestic in nature. At *Xochicalco* "the palace" and other structures belong in the same class (Marquina, 1951, p. 142, after Noguera). At *Monte Alban* "the house of the priests" may also be placed in this category.

Most of these structures have been generally considered as a proof of urbanization in Mexico, in contrast to the lack of similar buildings yet discovered in the Maya area.

LORDS' AND PRIESTS' HOUSE

In the previous discussion of the function of the various buildings, several early references were given to the structures possibly used by the lord or the priest. In many cases these seem correlated with the temple.

"MEN'S HOUSE"

In the search for counterparts of secular structures usually present in primitive communities, none is clearer in the literature than the "men's house," the usual dwelling place of the youth from puberty to marriage.

EARLY ACCOUNTS. Landa (1941, p. 124) tells us that (1) the young people "did not associate with the old men except when it could not be avoided"; (2) "the boys of marriageable age did not associate except to a very slight extent with the married people"; (3) "they were accustomed to have in each town a large house . . . open on all sides, where the young men came together for their amusements"; (4) "almost always they all slept together here also until they married." [35]

There is no type of building at Chichen which can definitely be assigned as a residence for the boys. Landa's description of "a large house . . . open on all sides" would apply, perhaps, to an open colonnade. It has been suggested that the patio may possibly have been used for the same purpose as the *calmecac* of the Aztec.

The rooms already noted at Calixtlahuaca for domestic use have been said by Garcia Payon to belong to a *calmecac.*

MARKET

This name has been, as we have seen, incorrectly associated with the patio form of building.

There are in the Court of the Thousand Columns (fig. 57) remains of almost three-score small platforms and other crude constructions which are late in point of time, and may well have been the more or less permanent booths of a market.[36] As already shown, Chichen was at one time an important center of trade. The Maya market is considered in Chapter VII.[37]

CASA PRINCIPAL

This served as the "clan house" and is called a *tecpan* by the Aztec. It is difficult to identify this definitely with any of the structures either in Classical or in Toltec-Maya times. The patio structure, as already noted, in Chichen III is a possibility for the purely secular building, but in one of the most important examples the bas-reliefs seem to be religious in character.

HOUSING FOR PILGRIMS

It is probable that Chichen II was not the place of pilgrimage that it became in the succeeding periods. We have already suggested that the Cenote cult came in with or after the Itza in Chichen III. Even in this epoch it seems impossible to find remains of stone structures capable of accommodating large numbers of people. It is far more likely that wooden buildings were used as shelter.

MILITARY PROTECTION

In the general discussion of Maya archæology it was shown that there is very little reason to assume a series of wars as marking the end of the Late Classic and the coming in of the Mexican people. In the periods after 1200, there is more evidence of a desire to protect a few sites from attack either by a wall or, as in the south, by the selection of a location made relatively safe by nature.

CHICHEN. The idea once advanced of a protective wall around part of this site is no longer accepted. A fresco (fig. 685) dating from Mexican times in the Monjas seems to show a village protected by a wall.[38]

In the painting in the Temple of the Jaguars combats are shown in several places and possibly ramparts before two villages being attacked. In another part, what seem to be scaling devices or high platforms and a notched tree are shown in connection with a battle.

MAYAPAN. The reference by Landa to the famous wall, more than 9 km. long and enclosing an area of 4.2 sq. km., has already been given. The rampart consists of a parapet from 1.5 to 2 m. high. On the inner side is a bench or step. There are about seven major and five minor portals. "Careful search was made in a large area around the gates and within the passage ways for indication of ceremonial activities, guardhouses, arsenals, or warfare." No evidence of any of these features was found (Shook, 1952). These gateways are discussed in the next section.

CHACCHOB. In this site near Tekax, Pollock and Stromsvik (1953) report a wall, similar to that at Mayapan, surrounding a ruin. This feature must necessarily show a late occupation here as the remains of buildings indicate a settlement dating from the Yucatan-Maya period. Neither the wall here nor the one at Mayapan would seem to afford adequate protection in war unless built with a palisade.

EAST COAST. *Tulum.* The great wall, over 2300 feet long, which runs around three sides of the site (cliffs drop to the ocean on the fourth) was undoubtedly for purposes of defense. One reason for this opinion is its height, 10–15 feet. A second wall runs 1240 feet from the southwest corner of the Great Wall to the sea (Lothrop, 1924, p. 68).

Xelha. Here a wall crosses a narrow tongue of land which runs out between two arms of Xelha Bay. It is comparable to the Great Wall at Tulum.

GUATEMALA HIGHLANDS. There is clear evidence that in the later periods of Maya history warfare was not uncommon and that several sites here were clearly chosen as positions easily defensible. Among these are Zaculeu, capital of the Mam; Utatlan, a center of the Quiche; and Iximche, the city of the Cakchiquel.

MEXICO. Xochicalco, Monte Alban, and La Quemada are famous as hill fortresses.

PORTALS

CLASSIC STAGE. The ceremonial entrance, usually to a court, is found in some of the Yucatan-Maya sites. The most elaborate one is at Labna. There is a free-standing vault of architectural importance with a room to right and left of the entrance. Others are at Xculoc and Oxkintok. A portal vault at Uxmal forms the entrance to the court of the Monjas. There are also two similar vaults, blocked up, in the Governor's House. It seems as if at one time this structure was planned as the first of four to form a court, as at the Monjas. Ruppert and A. L. Smith report a free-standing arch about 3 km. south of the Adivino.

CHICHEN. Here the portal vault seems to date from Mexican times. One (Str. 3C15) is in the South Annex of the Caracol; another is in Str. 5C16 "with a stone veneer." Ruz reports a covered entrance at the western edge of the terrace just south of the Great Ball Court. It consists of two arches with a room whose lintel is supported by a single column.

MAYAPAN. There are 12 gateways through the famous wall here, seven major and five minor ones, including one in each class which was found blocked up. Those of the larger type open up on the inner side into a kind of "portico," set within the wall. One or two stone or masonry columns were erected in the center of the space.

The main west entrance to the great enclosure and the most elaborate one faced, but at a considerable distance, the Temple of Kukulcan described by Landa.

On each of the inner sides of this gateway was a wide stairway leading to the top of the wall. At the portal itself there were benches; presumably the wooden roof was supported by two stone columns, in front of which stood a plain stela. Before this, but slightly out of line, was a second one resting on a platform (Shook, 1952).

Another portal, this time a vaulted one of uncut stone slabs but similar in plan to those just described, was at the west edge of a small ceremonial assemblage distinct from the Main Group. In the wider part there was a masonry pier which carried the soffits of the vaults and two round columns supporting the east façade.

Directly at the northeast corner of the gateway, on a platform with a stairway on the east, was a single-chambered temple with a flat roof and an entrance of two round columns. This was built of re-used stones from the period of the Puuc. "At each side of the stairs is a smooth balustrade . . . with a vertical block at the height of the two top steps" (Stromsvik, 1953).

A free-standing vault in an assemblage of structures distinct from the Main Group seems to be unique. "It somewhat resembles the major gates of the Great Wall, but the vaulted roofing here is quite different. . . ." The stones of the structure are unshaped and were laid dry. The west end is composed of two round columns with a square shaft behind. Adjoining it on the northeast is a temple of a single room and an entrance of two round pillars (Stromsvik, 1953).

CACHES

Foundation offerings under buildings or stelae are not uncommon in all stages of Maya history. These may or may not contain human bones and cremated remains. Some of the best examples of both were found at Copan and at Holmul, Guatemala.

CHICHEN. From the fact that practically every structure extensively explored at this site contained some sort of cache, the custom of a foundation offering seems to have been common. This statement certainly applies to the Mexican periods, as most of the structures which have been carefully investigated date from these later times.

The first cache to be found here was uncovered in 1875 by Le Plongeon (Salisbury, 1877) when taking the first chac mool from Mausoleum I. The collection, consisting of two flat dishes, a jar, and some jade and flints said to have been found in a stone urn, is now in the Peabody Museum (Salisbury, 1877; Seler, vol. 5, pl. 40).

In 1896 Edward H. Thompson found in the High Priest's Grave the top of a stone-lined shaft leading down to a cave in which there were several graves. The most important objects he found were jade and crystal beads, copper bells, red tripod bowls, the remains of a "marble" vase, and an incense burner (J. E. S. Thompson, 1938). These objects are now in the Natural History Museum, Chicago.

In the Temple of the Warriors, offerings, probably dedicatory, were beneath the northeast and northwest corners. A sandstone disk lay in each cache, which contained also one jade and two shell beads, and some quartz crystals. A cache of eight cylindrical red jars was near a column in the outer room of this building at a height of 1.68 to 2.14 m. above the floor. "Undoubtedly," writes Morris (1931, pp. 101–03), "these were hidden in a cavity existent after the temple had fallen into an advanced state of ruin."

Under the sculptured dais of the Northwest Colonnade was a cache whose contents had been removed in prehistoric times except for parts of a clay vessel. The altar in the North Colonnade also covered an offering consisting of two sandstone disks, 11 small pieces of jade, and some shell beads. Under the dais of the Northeast Colonnade lay a masonry crypt, which contained two jade beads and some shell disks. A crude secondary dais had no offering connected with it.

In the Temple of the Chac Mool a limestone jar stood under the spot once occupied by the altar. After the removal of beads and a carved jade pendant with many shell beads and disks with the bones of a small bird, the famous mosaic plaque was found at the bottom. Vestiges of a textile were noted (Morris, 1931, pp. 181–88).[39]

At the Caracol, in the center of the first circular platform, was a round cist containing a large olla. Among its contents were pieces of a sandstone disk, several fragments of pyrite mosaic, and skeletons of 41 short-tailed shrews. Below the sill of the southeast doorway of the tower was a pottery figure of a turtle containing, among other things, calcite, jade, and shell beads (Ruppert, 1935, pp. 84, 219).

In the Mercado, beneath the floor in the sunken area of the

patio, a stone box (2.10 by 2.15 m.) contained five pieces of worked jade and 113 shell beads (Ruppert, 1943, p. 256, fig. 35).

The Temple of the Wall Panels had, in the center of the inner room in front of an early altar, a square carved stone which formerly covered a cist. The contents had been removed, possibly when the altar was razed (Ruppert, 1931, p. 127).[40]

The Castillo *sub* had a famous jade-encrusted jaguar on the back of which rested a mosaic disk. This cannot be considered a foundation sacrifice, but the stone box under the stairway of the Castillo certainly can. It contained two mosaic plaques, several carved pectorals, a jade head, jade beads and disks, and two large stone knives (Marquina, 1951, pp. 853–54). Other than the offerings thrown into the Cenote, this is the largest collection of precious objects ever found up to the present time at Chichen.

In the floor of Mausoleum II a deposit consisted of a human skull facing east, associated with jade ear ornaments, two jade plaques, and a collar of 175 large and small shell beads and numerous pieces of pyrite, possibly forming a mosaic. Another interment held a skull over a mosaic of pyrite. Both disks were of stone.

Uxmal. Only one cache in Yucatan, outside of those at Chichen, will be mentioned. It was under the floor of a platform or tribune or *adoratorio* at Uxmal and contained, among other things, 867 beads of jade, shell, coral and a black stone, a jade pectoral very similar to some from the Sacred Cenote, and five vases of alabaster. The last seem to date the deposit in the Mexican period at this site (Saenz, 1952).

Burials

Early accounts. The Maya idea of death, the ways it is portrayed, and the rites of mourning are considered later. Here we are concerned with the disposal of the body. Landa (1941, pp. 129–30) writes:

> Once dead, they put them in a shroud, filling their mouths with ground maize . . . and with it they placed some of the stones which they use for money, so that they should not be without something to eat in the other life. They buried them inside or in the rear of their houses, casting into the grave with them some of their idols, and if he was a priest, some of his books. . . . Usually they abandoned the house and left it deserted after the burials, except when there were a great many persons in it. . . . As for the nobles and persons of high esteem, they burned their bodies and placed their ashes in great urns, and they built temples above them, as those which are found at Izamal show was done in old times.[41]

Chichen. Our knowledge of the usual method of disposing of the dead here is singularly meager. Over 50 years ago, E. H. Thompson (1938) discovered the so-called High Priest's Grave (Str. 3C1) in a natural cavern reached by a perpendicular shaft starting from the floor of a temple and descending through the artificial substructure. About the same time he also reported three vaulted tombs (Str. 3C4) which were built after the space between two rows of columns had been filled in. Two skeletons with pottery, jade beads, a rock crystal bead, a copper bell, and pieces of shell possibly from a mask, were found in two of the burials (Ruppert, 1952, App. II).

Between the Casa Redonda and the hacienda was a temple of the stoa type. In the talus of its terrace was a vaulted tomb (from which a painted capstone probably came).

In the doorway of a sweat house (Str. 3E3) were fragments of a human skull; nearby, a jaw and ribs (Ruppert, 1952, pp. 82, 149, fig. 111,*b*).

In the Caracol a cremation or inhumation was found (Ruppert, 1935, p. 119).

In Str. 3C5 two human femurs and an arm bone lay on the floor.

J. E. S. Thompson, in clearing out a *chultun* northwest of Str. 5C1, discovered therein a burial of an adult male "without funerary furniture, resting on a mass of scrapings and dumpage like potsherds and animal bones, in which was buried the cover of the cistern" (Vaillant in Ruppert, 1952, p. 159).

The human bones recovered from the Cenote will be described later.

Mayapan. Following the statement of Landa, excavations were made by Carnegie Institution below the floors and benches of the house mounds here. From 22 pits sunk, masonry-lined cists were found under five benches and two platforms. "These varied greatly in construction, from a nicely plastered rectangular chamber with corbelled vault to rough, unplastered compartments filled with rubble. . . . Only in three of them, however, were human remains present. Little grave furniture was recovered." Pottery figurines, one male and one female, were found in one tomb. Most of the ceramics were late and of Mayapan types (Ruppert and Smith, 1952, p. 244).

One of the caves in Cenote X-Coton at this site was filled to the depth of 2 m. with sherds and the remains of 12 bodies. The majority of the 1293 sherds from this cave were earlier than the main period at Mayapan (R. E. Smith, 1953).

Other sites. Wauchope (1934) describes inhumation in the floor of a house mound at Uaxactun and calls attention to reports of burials under floors in British Honduras. Within historic times the Maya in British Honduras and the Alta Verapaz, and the northern Tzeltal, buried their dead under house floors (Tozzer, 1941, note 607).

Roads

The excellent means of communication from one part of the country to the other, including the system of roads at Coba, will be considered in Chapter VII.

Chichen. Probably the most famous of the paved roads (*sacbes*) here is the one which runs from the court of the Castillo north to the Cenote of Sacrifice (fig. 704). This will be described later.

Of the other roadways at Chichen, the most important are No. 2, from the north corner of the Great Ball Court to the Northwest Group; No. 3, west of the latter group running west toward Piste; No. 4, from the Castillo southwest to the Casa Colorada; No. 5, parallel to No. 4 to the Caracol and to the Temple of the Wall Panels; No. 6, from the corner of the Court of the Thousand Columns toward the east; No. 7, from west of the Monjas south to the Southwest Group; No. 8, from Str. 5D4 to the Temple of the Hieroglyphic Jambs (Str. 6E3). Of these Nos. 7 and 8 seem clearly, from the situation of their beginnings and ends, to belong to Chichen I. There is no question but what new roads will be discovered after more intensive investigation (see fig. 1 here and Ruppert, 1952, fig. 151).

The arrangement of structures along anything that can be called a street is very rare. The same is true at Mayapan with its multiplicity of house mounds.

Mayapan. [There are three sacbes noted on the plan of the ruins (Jones, 1952). The largest, southeast of the ceremonial center, runs between two groups of what appear to be unusually imposing residences. Pollock (1954) writes, "The sacbe apparently was constructed not only during the Mayapan period but probably late in that era."—T. P.]

East Coast. "A peculiar feature of this town [Tulum]," writes Lothrop (1924), "is the presence of well-developed streets, one of which runs absolutely straight for a quarter of a mile through the center of the city, with edifices on either side."

"Way Signs"

The so-called "way signs," appearing in the Temple of the Jaguars paintings (fig. 396) and also in the Temple of the Warriors are covered by Morris (1931, p. 479). It is here suggested that these are the flags and insignia, made mostly of paper, which were attached to poles held upright by standard bearers.

These flaglike objects appear on the fresco at Chacmultun. Paper standards form a very important feature in Mexico in connection with mummies and their decoration (see fig. 402 and Magliabecchiano 67, 69, 70, 72).

References to banners placed on top of temples in the rite honoring Kukulcan have been made (see also Tozzer, 1941, p. 291, who gives other references to flags).

It is suggested that the so-called "canopies" seen in several frescoes may be associated with human sacrifice (Chapter III-8).

4. ARCHITECTURAL SUBSIDIARIES

We now take up the permanent features usually found as part of the structures. Table 10 shows the distribution of some of them at Chichen, Tula, and Tenochtitlan. It is interesting to note their presence or absence in relation to Chichen I, II, and III.

Bench

This and the altar or dais are sometimes confused. The elongated narrow seat running around the back and often the sides of a room is here called a bench. In some cases this is broken by a wider construction, usually referred to as a dais or an altar. If this table-like form occurs in the center of the back wall of a temple, it is termed altar.

The bench is not uncommon in the Classic period in the south. It seldom shows any decoration (see Tozzer, 1911, p. 19; 1913, p. 159).

Chichen. In the structures of the Yucatan-Maya period the bench is practically never found. It is rare in Chichen II but most common in Chichen III.

Running the length of both sides of several of the ball courts is a bench. Sometimes the face of this step contains panels of bas-relief (Strs. 3C10, 3E2). The only one which is fully known at the present time is that at the bottom of each wall of the Great Ball Court. On the front of each of these two benches are three panels with essentially the same design (fig. 474). The subject of this bas-relief will be considered later.

There is a type of bench in structures of Chichen III with a sloping back or batter, running along the rear and short side walls. This seat is often interrupted by a dais or altar. In the Mercado this is east of the doorway to the Patio. The sloping back and the dais are shown in figure 63. A very similar bench in the colonnade before the main temple at Tula (fig. 64) is described later. Practically the same form of the bench is found with one altar in the North Colonnade and with two along the back wall of the Northwest Colonnade.

Both in the Temple of the Chac Mool and in the Temple of the Warriors, in the inner or shrine room on either side of an altar, there is a bench running along the back wall and the ends of the room. On the front of both of those in the former structure is a fresco of some importance, showing seated figures.

In the Temple of the Wall Panels a bench extends across the back wall. In the colonnade before the building is a similar construction along the back and sides, broken to the south of the stairway by a dais. Elsewhere, a bench is reported in the outer room of Strs. 3C6, 3D1, 3D10, and 3D19.

On the long wall of the southern portico of the Toltec court of the Monjas are two benches. The one in the southeast corner of the room has sculptures on the front and on the west end.

Among others is one in the north room of a structure on the east wall of the ball court near the Mercado. This also has bas-relief on its front.

Mayapan. [Benches are characteristically found in colonnades and dwelling houses though a number of structures regarded as temples, particularly those with interior piers, also contain them. The benches of colonnades are as a rule broken only in the center, where there is an altar or shrine. Those of the houses are interrupted by the doors leading into the rear compartments. No sloping elements at the back have been observed, but a small molding along the face may be present.—T. P.]

East Coast. There are few references to the bench in the ruins in this region. In the top structure of the Castillo at Tulum there is one running around three sides of the inner room and along both ends of the outer one.

Tula. Around the three sides and part of the fourth of the Colonnade or "vestibule" in front of the Main Temple (fig. 51) there is a bench (fig. 64) with sloping back, similar to that in the Mercado and in the Northwest Colonnade at Chichen. East of the stairway to the upper structure is an altar. The cornice of the bench is decorated with a series of undulating serpents and, below, a line of Toltec warriors. It is also here that some sculptured stones were found, each with a warrior lying full length.

West of the Main Temple is the Palacio Quemado (Edificio 3). In this is Sala 1, which has been thoroughly explored. Its most important feature is a bench around the room, with a projecting altar in the center of three sides. In this room, in the *talud* behind, are the impressions made by the former wooden posts which reinforced the walls of adobe. The remains of a carbonized wooden column have been found on the west side of the Main Temple (Temporada VIII).

Just to the west is Sala 2, which was partially uncovered in 1953 (Temporada IX). The bench here with its serpents and procession of Toltec is almost an exact duplication of the one in the colonnade to the southeast.

Other Mexican sites. *Malinalco.* The bench is a common feature here. It occurs in two of the three round chambers and in the outer room of the third (III). It is also found on the three sides of the large quadrangular structure (IV).

Teopanzalco. Each of the single rooms in this double temple has a bench along the back wall.

Tepoztlan. Here is a bench on either side of the outer room

and another on three sides of the inner chamber. On the face of the latter is a famous bas-relief (considered later).

Huasteca. At Tamuin there are two benches, each in connection with an altar.

Altar or Dais [42]

Classic stage. The term "altar" has been given to large and complicated sculptured forms often found in front of stelae. In many cases they carry dated inscriptions. Those at Copan and Quirigua are most famous. There is a well-known round one supported on three legs at Tikal. The table, throne, or seat is excellently shown on Lintel 2 at Piedras Negras, at Palenque, and on the fresco at Bonampak.

As with other features, the discussion here is generally limited to Mexican times, especially to those periods at Chichen and sites used for comparison.

Chichen. The dais or altar, found almost exclusively in structures of Chichen III, is of considerable importance on account of its bas-relief. Various benches when found in the corners of rooms are included here. All of this type usually have an overhanging cornice on which is carved a line of undulating serpents. Below on the sloping face of the platform there are one or two lines of Toltec warriors with or without Maya prisoners. The most typical altars or benches are in the following structures: (1) Northwest Colonnade, south side (Morris, 1931, pls. 124–29); (2) North Colonnade (Morris, fig. 257); (3) Northeast Colonnade, two rows (Carnegie Institution of Washington); (4) Mercado (Ruppert, 1943, pp. 22–25); (5) Mercado Ball Court (Ruppert, 1952, fig. 129,*c,d*); (6) Toltec Annex, Monjas, southwest bench (Carnegie Institution of Washington); (7) Temple of the Chac Mool, benches (Morris, 1931, pls. 133–38). These find parallels, including the serpent cornice and the processional grouping below, on two benches at Tula, on several stone monuments at Tenochtitlan, and in other places.

Among other altars at Chichen are one in the West Annex of the Caracol, which has a painted floral design, and another in the Toltec court south of the House of the Phalli. Two stones with a design of eagles were used in the facing of this platform.

Salazar (1952, p. 41) considers that a stone ring, similar to those of a ball court and found near Mausoleum II, may have served as an altar on top of this tribune, because of stucco adhering to it. The carving on the edge of the ring shows a seated figure in front of an altar.

On the late third story of the Monjas is a monolithic altar, sculptured, but badly weathered, on top and four sides. This has sometimes been called a sacrificial stone. On each end is a single figure which looks like a Maya, on front and back are two personages who may belong to the same ethnological group.

Mayapan. This type of construction is very common at this site. The smaller of two temples in the southeast corner of the city had a beam-and-mortar roof. The building showed at least five consecutive alterations, each marked by the addition of a new concrete floor. Against the back wall was an altar which had been remade; it had successive layers of white lime. Below, on the level of the plaza, there were also three masonry altars. At the edge of one of them was a crudely cut stela (Shook, 1952, p. 249).

Inside Gate EE were two small square constructions faced with plaster; they may have served as altars. In one a vessel of porous gray ware was found.

[Most colonnades have a central altar, somewhat higher than the bench and set back from its face. The altar in Str. Q-97 was decorated on its face with a lattice motif of stucco and two high-relief stucco figures.

Two types of monolithic altars also occur at Mayapan: one, sometimes called a "sacrificial stone," is rectangular at the base and tapers toward the top; the other is cylindrical at the base, has a projecting molding near the top, and ends in a round, bulbous element. These monolithic altars are usually set up outside.–T. P.]

East Coast. At Tulum and other sites solid tables or altars are common in the center of the inner apartment.

At Tamul on Cancuen Island, in a single-room structure with two columns, there is an altar of some interest. On the top is a bowl-like depression, 2 feet 2 inches in diameter and 1 foot 4 inches deep. Near the back wall on the top are two vertical holes about 3 inches in diameter. There is a concrete coping, 7 inches wide, with a projection of 2 inches (Yde, 1932).

Guatemala highlands. At Zaculeu and other ruins there are altars in the shrine rooms.

Tula. In the colonnade before the Main Temple, an altar east of the stairway interrupts the bench along the back wall, exactly as at Chichen. In Edificio 3 (Palacio Quemado), Sala 1 has an altar projecting from the bench on the north, west, and south sides.

The so-called "altar central" in the center of the large court west of the largest pyramid has been described under Tribunes.

Huasteca. At Tamuin, in San Luis Potosi, was a small *adoratorio*, with a bench and an altar in the form of a truncated cone. There seems also to have been a later bench and an altar in the form of a *brasero*. These all were "profusely decorated with scenes, with monochrome and polychrome *grecas*."

On the first altar, there is a line of 12 figures which have been interpreted as representing Quetzalcoatl and other gods, including Xolotl in the guise of Venus. These paintings are considered to belong to the same ideology as that found at Tula, Chichen, and on the stone of Tepezintla Tuxpan. Further reference will be made to this altar (Du Solier, 1946).

Valley of Mexico. In the centers dating from Aztec times, the altar is almost always present. At Tenayuca there is an Altar de Calaveras described here in connection with the *tzompantli*. Also here are two altars each in the shape of a coiled Xiucoatl.

The very close connection, seen in the dais at Chichen, of the dais with its frieze of serpents and its procession of warriors, the two at Tula and various carved stones at Tenochtitlan, already mentioned, will be considered later.

In a few cases, an altar or figure is placed a few steps up in the middle of a temple stairway. This is found at Malinalco, Calixtlahuaca, and other places.

Atlantean Forms

The male caryatid figure is an acceptable addition from Mexico to the art of the late Maya world.[43] It is carved in the round and in bas-relief, and painted in fresco. One type is tall enough to support vaults, flat ceilings, and door lintels; another is small enough to hold up the flat stones of altar-tables. Although some of these forms cannot strictly be considered architectural subsidiaries, they are discussed here. The figure in the same attitude but in bas-relief will be discussed later.

Tula and Chichen seem to be the two main centers of this architectural device. In Yucatan it is limited to Toltec times. A suggestion has already been made that at Chichen the atlantean support seems to be generally found in structures dating from Chichen III. In Mexico, its appearance first at Tula could well be called "proto-Aztec" as it continues "down into Aztec times" as part of an over-all cultural configuration. Thus we seem here to have a parallel with the situation in Yucatan where we have comparisons running down to colonial times (Chichen II, III, IV).

Chichen. There are several excellent examples here of the caryatid-like support where a lintel, a corbeled vault, or a flat ceiling beam is actually supported by the figure. The arms are raised at the sides of the head. In most cases a round object, coming out in front, is clasped in each hand. This seems to be part of a cushion or round object at the back of the head, which may indeed show at the front as well. The weight of the lintel or vault comes directly on this.

The simplest of the buildings, so far as plan is concerned, which had atlantean supports of interior vaults is the Temple of the Little Heads (fig. 12), a single-chambered structure with two columns each consisting of a human figure with his breechcloth pushed aside (Ruppert, 1952, fig. 145,*a*).

A second example is the Temple of the Interior Atlantean Columns (fig. 37). A single-chambered building opens from a portico each with four columns. The two in front are atlanteans (Ruppert, 1952, fig. 122,*a*); the two behind are plain round columns before an undecorated altar with a re-used sculptured stone in the north face. The plans of the columns here are of particular interest, as they follow the same pattern as those in the Main Temple at Tula.

Another type of tall atlantean figure at this site is that used in pairs to support the lintels forming the doorway to a temple. The Temple of the Atlantean Columns (Str. 5C15) belongs here, and also the two columns now used to support the Initial Series lintel (fig. 11). As has been pointed out, these atlanteans are much later than the dated stone which was placed upon them in very modern times. They probably once formed the entrance to a structure of the portico type of building.

Portions of tall pillars of the same type were found in the mounds of Strs. 5B5 and 3E6 and in other places.

The Temple of the Jaguar Atlantean Columns (fig. 43) has a "triple entrance formed by two free-standing Atlantean columns and two Atlantean pilasters attached to jambs, all wearing jaguar masks" (Ruppert, 1952, p. 113, fig. 143,*b*).

Tula. The most striking examples of the large interior atlantean supports are found at Tula, the drums scattered far and near. The four sides of one of these is shown in figure 562. According to Marquina's reconstruction of the Quetzalcoatl temple, there were four of them, each made up of four drums with a total height of 4.6 m., in the outer room of the structure; four square and decorated pillars were in the inner apartment. It should be pointed out that the roof beams must have rested directly on the heads of the figures, the arms and hands being at the side of the body in true caryatid style.

The combination of the atlantean form of column with the round type is noted at Chichen in Str. 3C6 (fig. 37).

Table-Altar

Chichen. A pair, a line, or a cluster of small atlantean figures supporting one or more flat stone tops is a most common feature at this center. These figures fall into two types. The more common definitely belong to the Toltec group, based on the conventionalized bird as a breast ornament, a so-called back-shield, and nose buttons. The other type, far more plainly dressed, are likely to wear a nose bead and a round breast ornament, plain or decorated with what may be two bosses or two holes. Some wear the turquoise headband, a Toltec characteristic.

The best example of an altar of the first type is that formerly standing in the portico of the Temple of the Jaguars. The stone top, carved on the upper surface and on the edges, was supported by 15 atlanteans. Breton copied the parts of the broken top which were recovered, and painted the photographs of each figure which, at the time they were found, still had many of the original colors (Seler, 5:272, pls. 16–20). Two are shown in figure 65. The first has a nose bead and the typical Toltec mosaic breast ornament with an unusual feature, a cord tied about the waist. The second has the bead, the pendant in the nose, an elaborate breast decoration, and carved ear spools. The tying of the garters and ankle bands is uncommon.

These figures are not all of the same height or weight. It has been suggested that originally they did not belong together as a group. It may be that they were brought from other structures and were a late addition to the portico here, probably in Chichen III. Table atlanteans, other than these, all seem to be found in this later Mexican stage.

In the description of the god Tlaloc, other examples of these atlanteans will be mentioned.

In the inner room of the Temple of the Big Tables (fig. 25) there was a long stone table running the length of the back wall. There were 24 Toltec atlanteans arranged in pairs, one behind the other (Seler, vol. 5, pls. 21, 22).

In the shrine room of the Temple of the Warriors there was an altar supported by 19 figures and nine stone posts (Morris, 1931, pl. 6). This had evidently been brought up from the lower Chac Mool when this temple was abandoned and the rooms filled. These statues belong to the second type of figures.

In the Temple of the Little Tables, along the back wall were 14 atlanteans of the same kind. A line of stone posts ran behind the two rows of figures, as in the Temple of the Warriors. These stone images differed in height but were equalized by sinking the taller ones slightly beneath the floor level (Maler, 1895, pp. 15, 16).

In the Southeast Colonnade and in the Temple of the Little Heads a few atlanteans have been found. One in the latter was nude. Others, with no provenience, are reported in storage at Chichen. Among them are a nude and two kneeling ones.

A figure of this sort and a stone post were reported in Str. 2B5.[44]

At the Southeast Colonnade a kneeling atlantean (fig. 66) of an unusual type was found. From his belt hangs what seems to be a trophy head.

Near the High Priest's Grave was a single atlantean (fig. 587), of particular interest because the lower part of the human face is covered by the beak of a bird and the feet are claws. This same sort of figure is both on the columns at the Temple of the Warriors and at Tula.

Near the Casa Colorada was a curious square column at the top of which were carved a head and upraised arms and hands (Seler, 5: 386).

Xculoc. At this site in the Puuc area, on a building showing the characteristic architecture of this region, there are in niches

atlantean figures in stone. Proskouriakoff (1950, p. 168, figs. 95,*i*, 96,*g*) discusses this "potbellied individual with a puffy infantile face," pointing him out also on a column at Oxkintok, "where he holds a star-shaped club also carried by atlantean figures at Chichen Itza." The style is neither Classic nor Mexican.

TULA. In connection with the Main Temple, two small painted atlantean figures (fig. 67) were found. They do not seem to belong to the same altar. Marquina (1951), who illustrates them, indicates in his plan of this structure an altar standing in the middle of the back wall similar to that in the Temple of the Warriors.

VALLEY OF MEXICO. This type of stone carving persisted into Aztec times. At Tlaxcala (Seler, vol. 5, pl. XVIa) two of the caryatids were found. Two views of one of them are shown in figure 68. There is a back-shield *(tezcacuitlapilli)*, so common in all Toltec figures. Others representing Eecatl or Quetzalcoatl are reported at Tenochtitlan, from the Escalerillas (Seler, vol. 5, pl. 16; Batres, 1902).

VERACRUZ. At San Lorenzo Tenochtitlan there is a table-altar supported by "Atlases of the New World," as it is captioned by Stirling (1947, pl. 20). The figures perform the same function as those described here, but they are heavy-bodied short creatures quite unlike the Toltec types. Borbolla (1953, p. 202) calls it "an altar with Olmec dwarfs."

ATLANTEAN BAS-RELIEF

CHICHEN. There is a type of supporting figure apparently limited to this site. As noted elsewhere, most of the designs on the columns, jambs, and pilasters of Mexican structures are divided into three zones: a minor decoration at the top and bottom with the main design of some individual between. In a few cases, as in the Castillo, there is a capital above the upper figure. The atlantean is one of four different designs appearing as the upper figure (fig. 261); sometimes also as the lower one or on the capital of the column. They seem to represent Maya bacabs, who are found in connection with a turtle shell, shell, spider web, or bee, and will be taken up in connection with the sky gods (Chapter III-7G).

As part of the design on the projecting tail on some of the serpent columns here is a line of similar small atlanteans (fig. 262), seen especially well on the Temple of the Chac Mool (Morris, 1931, pl. 28).

Nearly life-size atlanteans (fig. 175) appear as the main figures on jambs and pilasters on the Temple of the Warriors and the Northwest Colonnade. All these bas-reliefs of male caryatids wear the typical dress and decorations of the Maya.

On the four sides of the two columns of the Lower Temple of the Jaguars, the eight main figures, four of them with skirts, are each supporting the "mask with three figures." These undoubtedly are Maya (fig. 345).

In the North Colonnade are two types of drums of columns on the terrace. One has four atlanteans around the circle occupying the entire height of the columns. There are also two columns, each with the feet of three Toltec, below which is a narrow border of supporting figures (one of which clearly shows a beard and is associated with the lotus). This suggests the border in the Lower Temple of the Jaguars.

At the base of the north and south sides of the two columns of Str. 4B1 is a seated, half-reclining figure (fig. 69) with one arm at the top and the other resting on the ground, as if supporting something. This recalls the figures (fig. 164) on the lower border of the Temple of the Jaguars fresco. On the east and west sides of the above columns, the lower design is the Jaguar-Serpent-Bird monster. The same reclining figure is noted on a drum of a column from Str. 5C18.

In the Toltec Annex of the Monjas several large square capitals have come from the porticoes. On each is a Toltec at full length (fig. 575), not, however, in the position of an atlantean. They recall the stones with Toltec (fig. 571) lately discovered in Sala 1 of the Palacio Quemado at Tula.

ATLANTEANS WITH FOLIAGE, FLOWERS, FISH

CHICHEN. On the lower border of the Temple of the Jaguars fresco there is a succession of six figures, just described, who seem to support the ceiling over the design of flowers and leaves (fig. 164). In much the same way, on the lower border in the bas-relief on the west wall of the Lower Temple of the Jaguars, there are small human figures (fig. 161) grasping a running design of lotus vine and blossoms with fish. They are also found on the north wall of the North Temple of the Big Ball Court. All seem to represent Maya.

On a lower border, shown on two drums of columns in the North Colonnade, is a line of small atlantean figures and a lotus, all suggestive of the border design on the North Temple.

On Str. 6E1 several drums of columns were found. On one, four atlanteans appear with three examples of the "celestial eye." It is on the drums of this structure that two panels of hieroglyphics appear with some Maya figures.

FIGURE WITH SPOTTED SKIRT

CHICHEN. There is a kind of atlantean figure wearing a spotted garment and lying on his back, appearing usually at the bottom of the design (fig. 678). The figure sometimes seems to be supporting serpents: twice on the Temple of the Jaguars fresco and in the North Temple of the Great Ball Court at the base of the north wall (fig. 679), two with heads together (Seler, 5: 307) at the base of the west column and two with the feet together (Breton, 1917, p. 188) on the east one. The one on the north wall has a bearded and an unbearded human figure coming out of a shell, not unlike the atlantean bacab of the same type. The north column of the Lower Temple of the Jaguars has four standing figures, each with a spotted skirt. These are all Maya and will be discussed later.

STANDARD BEARERS

At least in Aztec times, the use of bark paper for the feather-decorated insignia was a common decoration of temples, mummy bundles, shields, and dress. It may well be, as has been suggested, that some of the so-called "way signs" on Chichen frescoes (Morris, 1931, p. 179) were flags for one purpose or another.

From the archæological side, objects of stone of various types appear; these may have served to hold a pole to which a banner or a flag was attached.

CHICHEN. At each corner of the Temple of the Warriors, stones of truncated conical form lay in the debris. They clearly were to hold some kind of pole and flag. Another was found in front of the Northwest Colonnade.

A more interesting form of these standards was a standing or sitting figure with hands meeting in front of the body, behind

which was a vertical opening to hold an upright staff. At the Temple of the Warriors, on each side of the stairway, one of these figures was placed above and back of each serpent head of the balustrades (fig. 70). Two sitting figures, their heads missing, appeared in the excavation of the Temple of the Wall Panels. Another of the same type, evidently a Toltec from his breastplate, was found in the Northwest Group, Str. 2C1 (Seler, 5: 304). One, lacking a head, is reported from Str. 3B4. All seem to belong to Chichen III. A curious club-footed individual in the Merida Museum, said to have come from Chichen, is called a seated *"abanderado."* His head is turned to one side. A seated jaguar, used as a standard bearer, was found near the Monjas.

The various standards supported by the stone figures are somewhat difficult to determine. In the two lines of figures at the bottom of the frescoes in the Temple of the Jaguars appear several canopy-like constructions (fig. 398), each supported on a pole.[45] In the Temple of the Warriors fresco other and similar figures were found.[46] There seems little doubt but what these were a form of banner or standard, mainly of paper, sometimes of feathers. In connection with the "canopies" in both frescoes, comment is made later in regard to their possible connection with human sacrifice.

Tall thin flags are often found beside the "canopies." On Column 2W in the Temple of the Chac Mool, a Toltec carries a kind of flag.

One of the figures (fig. 654) on a jamb of the south portico in the Toltec Annex of the Monjas seems to carry a similar long narrow banner on a staff. This person seems to be a Maya.

A passage from Landa (1941, p. 157), describing a ritual in honor of Kukulcan, tells of "four or five magnificent banners of feathers" placed on top of the temple. This and another reference to a banner (Tozzer, 1941, note 803) at Zaci which was placed on a pyramidal temple, seem to explain the "canopy" and the flag.[47]

MAYAPAN. Banner holders in the form of human and animal figures with head turned to one side have been found here.

TULA. Several of these stones of the same general form have appeared at this site. One (fig. 71), called by Acosta a *"porta-estandarte,"* was found over the stairway of the main pyramid. This was probably one justification for Marquina (1951, pl. 46) placing them at each side at the top of the balustrade in his drawing.

MALINALCO. In the Jaguar-Eagle Lodge (Str. I) a standard bearer was noted near the foot of the stairway.

VALLEY OF MEXICO. The type specimen, a seated figure (fig. 72) called "El Indio Triste," is from Tenochtitlan. Batres (1902) shows two others from this location. Others in Vienna (one of which came from Puebla) and one in Berlin are called Macuilxochitl, "the god of music, the dance and gaming," by Seler (2: 885–88). A standing figure from Calixtlahuaca, already mentioned, may hold a pole.

There is another type of standing human figure that has at least one arm outstretched, with a vertical opening in the clenched fist. This may also be a standard bearer. There is the so-called "ball player" from Tenochtitlan which may belong here (Seler, 2: 890). A statue of Eecatl may be of this type (Pijoan, 1946, pp. 27, 152).

TAJIN. In the restoration of the main pyramid, after plans by A. Garcia, there are seated figures at the top of each balustrade.

CEMPOALA. At the Templo Mayor, two seated jaguars are at the top of each balustrade (Marquina, 1951, p. 466).

CHAC MOOL

CHICHEN. This is the name given to a widespread and well-known type of half-reclining figure (*"dios recostado"*) with feet drawn in, knees raised, and head always turned to one side. The god holds in his lap, supported by his two hands, a bowl or flat dish. The name, meaning "red jaguar," was given to the first statue of the kind discovered at Chichen in 1875 by Le Plongeon, whose vagaries and fanciful theories are discussed later. His account of finding this figure illustrates the working of his mind. This famous "idol" was found "in consequence of interpretation of certain mural tablets and hieroglyphics, which the discoverer and his able coadjutor, Mrs. Le Plongeon, found in the building (of the Jaguars) which Dr. Le Plongeon says was erected by the Queen of Itza to the memory of Chac-Mool, her husband" (Salisbury, 1877).

This figure, now in the National Museum, Mexico, was found inside the platform of Mausoleum I, now called the Platform of the Eagles, under the figure of a red jaguar.[48] Another chac mool was buried inside Mausoleum II. A third was on the east side of this platform; a fourth, under the top of the platform of Mausoleum III.

Near the Big Ball Court was one now in the Merida Museum.

In the Castillo *sub*, one was encountered in the outer chamber, with the elaborate jade-incrusted jaguar, painted red, in connection with a structure not assigned to Chichen III. It might have been introduced into this structure some time after it was built.

This same figure, found in the Temple of the Chac Mool, wore an elaborate crested helmet upon which crouched a composite figure with froglike body and reptilian head. An inverted human head, trophy-like, hung from each thigh (Morris, 1931, p. 78, pl. 15). A less elaborate chac mool was found in the Temple of the Warriors between the two serpent columns. Another appeared in front of the dais of the North Colonnade (Proskouriakoff, 1946, p. 25). The Temple of the Little Tables also had one. Still another in the vicinity was found near the entrance to the Sacred Way to the Cenote.

In the southern part of the site there is one near the cenote west of the Monjas, a second at the base of the Temple of the Initial Series, and a third on the west edge of the Initial Series group (Str. 5C12).[49]

Just as the conventionalized Toltec bird appears on the breast of many of the atlantean table supports, the same design occurs on some of the chac mools. The Le Plongeon figure also wears a nose button through each side of the nose; the one at the Temple of the Chac Mool has a nose bead.

MAYAPAN. No figure of this type has, as yet, been reported here.

EAST COAST. At Ascencion Bay a headless chac mool was noted in a group of ruins which were named after the statue found there (Lothrop, 1924, p. 162). The site seems clearly to belong in Chichen III.

GENERAL DISTRIBUTION IN THE SOUTH. Tozzer (1926 [1929 ed.]) shows on a map most of the places where this type of image is reported. There seems little doubt that it is associated with the Mexican periods. Saville writes of one from Quirigua, now in the Heye Museum, but not associated with the ruins there.

Others have been found at Chalahuapa in El Salvador with the bird design as a pectoral (Weber, 1922, p. 643), in Nicaragua, and in Mercedes, Costa Rica.

Tula. At least two mutilated statues of the same type (fig. 73) have been found here.[50] One of these was associated with the tribune in the middle of the plaza to the west of Monticulo C.

Tarascan area. An angular type of figure comes from Ihuatzio. Two others and a table in the form of a coyote from the same region are in the National Museum (Marquina, 1951, p. 260).

Other Mexican sites. Cempoala, Tlaxcala (fig. 74), Puebla, Michoacan, are all places where chac mools have been located.

Valley of Mexico. At Tenochtitlan (fig. 75), in the Zocalo, on the site of the Palacio Municipal (Noguera, 1946c, pl. 70), at Tacubaya (fig. 76), and at San Bartolo, others have been found. There are at least 12 examples, including some of the above-mentioned in the National Museum (Thompson, 1941). There is also an unusual chac mool in the British Museum (Joyce, 1914, pl. 8; Burland, 1948, p. 84).

Like the atlantean table supports, the chac mools are chronologically distributed from the time of Tula down to that of the Aztec.

Purpose. There is, perhaps, no good reason to believe that all these statues played a part in the religious life. They have been explained as a place to offer and burn copal to Xiutecutli, god of fire, although few remains of heat have been found in the bowls. Tlaloc and Centeotl, the maize god, are two other deities who have been invoked to account for these figures.

Garcia Payon considers them to be associated with the gods of intoxication. Seler also relates the figures to the god of pulque. Palacios (1940), who has made an excellent study of the whole question, agrees in general with this theory and points out that Leon y Gama, more than a century ago, described the figure as Tezcatzoncatl, god of intoxication. "Gama," writes Palacios, "ought to be given *la palma* for this identification." The figure from Tlaxcala and the one from Tacubaya (figs. 74, 76) are both published by Seler as pulque gods.

In connection with the chac mool from Tzintzuntzan, Corona Nuñez (1952, p. 57) quotes from a *relación* of Michoacan which tells of human sacrifice and a god called Curitacaheri, messenger of the gods. He identifies the chac mool as a figure of this god seated before the temple. He calls attention to the chac mool of the Zocalo. Caso was the first to identify the bowl held in the lap of this idol as a *quauhxicalli* (blood bowl), a receptacle to receive the hearts of those sacrificed, which became food for the gods. The author goes on to point out the association of the chac mool with a jaguar or other animal. At Chichen both are found in the Castillo *sub* and in Mausoleum I. In Michoacan there is the chac mool and a coyote in Ihuatzio (Caso, 1941, fig. 4) and at least in two other places. At Tenochtitlan, the jaguar in the form of a *quauhxicalli* and the chac mool occur.

Thus it can probably be said that the chac mool and the accompanying jaguar are, in some cases at least, both factors in the Jaguar-Eagle cult.

5. FAÇADE DECORATION

We next consider the embellishment of the outside of the buildings. On the structures of the Yucatan-Maya period there are often examples of the entire façade covered with a mosaic of carved elements. The lower zone, however, is more often plain, the decoration being placed above the medial molding and, sometimes, also on an upper extension of the façade.

Chichen. In the Mexican periods here, the façade ornamentation consists of bas-relief, sculpture in the round, designs painted on layers of limestone covering the stone, and color applied to the carved elements.

The usual three-member cornice and medial and basal moldings (with or without carvings) so highly developed in the Yucatan-Maya structures, are far less important here. A single string course, usually with a line of roof ornaments, takes the place of the former cornice.

In the Castillo *sub* the carved cornice and the medial molding are retained; in the later Castillo the plain three-member cornice and medial molding appear in addition to the new element of the silhouette stones along the edge of the roof.

In practically every structure of Mexican Chichen, the place of the lowest molding or line of decoration is taken by the plain batter, the Castillo *sub* again being an exception.

The façade of the Temple of the Jaguars (fig. 85) shows in its upper zone a continuous band on four sides and a large number of repeating designs, both geometric and realistic, worked together into a successful whole.

As will be noted later, several of the elements of decoration seen on façades in this period have been carried over from the art of Chichen I and from other sites in this horizon.

Roof Ornaments

Designs in stone rising from the outer edge of the roof have been called, correctly or incorrectly, parapet stones, roof silhouette stones, antefixes, merlons, crenelations, battlements, *remate*, frets, *almenas*, and *adornos*. They are a very common feature only in the later periods in the Maya area,[51] but in Mexico they are found from Classic Teotihuacan to Aztec times.

Chichen. They are very seldom found in the Yucatan-Maya period at this site.[52] There are at least 12 types of roof decoration used in Chichen II and III.

The most usual design is a Greek or G fret with an excrescence at the top (fig. 77). This will be considered shortly in some detail. Other forms of roof decoration here are a T-shaped ornament (fig. 78) on the Temple of the Owls, and a variation of this (fig. 79) on Str. 2D6. An arrowpoint decoration (fig. 80) is noted on the Caracol, a kind of terraced type (fig. 81) on the Temple of the Wall Panels. In the Northwest Group there are two kinds: one resembles a flower or bud, the other is somewhat like the terrace variety.

The most elaborate roof ornament runs around the roof of the Temple of the Jaguars (one variety is shown in fig. 82); it represents three crossed spears in front of a shield. There are variations in this design. Several forms are also found on the Temple of the Big Tables (Seler, 5:378).[53]

East Coast. Lothrop writes of "small statues" along the edge of the roof, many of which have been broken off. Most of the façade decoration here is of stucco.

Teotihuacan, Tula, Xochicalco, Tenochtitlan. The rounded Greek fret (fig. 84) noted in these centers will be taken up in Chapter III-6. In the reconstruction of the Temple Enclosure at Tenochtitlan (Marquina, 1951, pl. 55), a structure shows the shell as a roof ornament.

Other Mexican sites. *Tenayuca*. On the main temple of Epocas 6 and 7, a roof ornament is indicated. *Cempoala*. In Epoca 4, along the top of the Templo Mayor, there seem to be lines of *adornos*. They are also seen on Las Chimeneas and on a tribune (Marquina, 1951, pp. 465, 466).

Codices and place names. In many of the Mexican manuscripts, especially those of the Mixtec type, roof ornaments are common (see especially the Nuttall Codex). In the post-Columbian Codex of Yanhuitlan there is a temple (fig. 88) resting on an undulating step design. This is considered later.

The place name of Tenanco, "fortified place," shows the roof decoration. Temples in the Historia Tolteca-Chichimeca and in other post-Columbian manuscripts have roof ornaments (fig. 33).

Chichen Façades

Those of only a few structures at this site will be discussed in detail here.

Temple of the Jaguars (fig. 85).[54] This is a most elaborate porticoed temple erected on the south end of the east wall of the Big Ball Court. With its lower structure at the back and on the ground level, these two temples present a remarkable array of stone bas-relief and carving in the round, wood carving, and fresco painting.

Much of the decoration on the façade seems to be duplicated on the sides and back of the building. Below the roof ornaments and a plain outwardly inclined cornice, there is the first of three serpent guilloches with rosettes in the openings of the interlacing. At either corner these intertwined bodies seem to have a head and a tail. This is a common design, seen also on the stone rings of the ball court and on the cornice of certain altars. It is described later.

Below the upper guilloche are two plumed serpents, the tail of each meeting in the center of the façade and the head at each corner. The bodies undulate in half-rectangles. Four "spools" are in each of the upper spaces; three disks in the lower ones made by the serpent body. Between the two lower guilloches is the procession of jaguars, described elsewhere, broken by three shields with feather hangings.

On the back and each side of the building in the lower zone, beneath the scheme of design just described, are two depressed panels which Seler calls *cassettes* (Barrera y Alvarez, 1950, pl. 25). A batter surrounds the building on three sides and at either side of the entrance. Attention should be called to the serpent heads projecting at the top of the balustrade at either side of the five steps at the front of the building, with the corresponding serpent bodies running horizontally along the top of the batter. The tail, belonging to the head opposite, falls across the sloping wall. The Jaguar-Serpent-Bird monster is below the serpent head.

The typical feathered-serpent columns support the wooden lintels which form the front of the vault of the portico. Behind is the altar, the three front atlanteans of which are shown. The west face of the pilasters of the vestibule and those at the door to the inner chamber of the frescoes, together with the outer side of the carved wooden lintel (fig. 270), also appear.

Castillo sub (fig. 86). This structure, only part of which has been uncovered, has more features like those of the Temple of the Jaguars than like those of the Castillo, which covers it. Various similarities are given on Table 12. The weight of evidence seems to show that this earlier temple stands nearer to the Yucatan-Maya type than does any other assigned to the Mexican periods here.

The roof ornament on this edifice is unreported. Directly below, there seems to be a molding broken by rosettes, followed by the "saw-tooth zigzag" band. The upper zone seems to have four shields similar to the three in the Temple of the Jaguars. On the medial molding, composed of a serpent guilloche above, is another "zigzag" band. A procession of jaguars, possibly four on either side of the design of two intertwined serpents, wends its way horizontally above a rosette.

Castillo. This pyramidal structure is the greatest and most dignified temple at this site. The interesting plan has already been described. Apart from its serpent columns, its only exterior decoration consists of roof stones and a mask panel over each of the three doorways, and serpent heads at the base of the north stairway. There is a line of sunken panels on the face of each of the nine terraces of the foundation mound.

Temple of the Warriors. Perhaps the most successful façade decoration at Chichen is seen here. Two elements were used: a mask not unlike those seen on the Castillo and the Monjas; and a feathered-serpent panel in low relief with the jaws in the round, out of which hangs a bifurcated tongue with a human head within the open jaws. A vertical group of three masks occurs at the corners of the building, in the center of three sides, and as a frame for the entrance. Between each of the panels masks (A) is the feathered-serpent design (B) (Morris, 1931, pl. 8). This decoration occurs in the lower zone of the façade, just above the *talud*. There are serpent columns, and at the back of the building on the sloping wall is a fresco of dead warriors and eagles, illustrative of the Jaguar-Eagle cult.

On the pyramid itself are three sculptured bands of god-warriors, eagles, and animals with short and with long tails. These and a similar design on the North Colonnade are considered under the cult just mentioned. Each balustrade on the stairway has an incised body of a rattlesnake decorated with feathers, with head in the round at the top.

Northwest Colonnade (Morris, 1931, pl. 27). Here, to the two elements of design (A, B) on the Temple of the Warriors, are added the bird-mask panel (C) and the statuette panel (D). There are only two masks arranged vertically. The bird-mask panel varies from the typical mask in that the snout of one of them in each panel is replaced by a human head, with the mouth represented by the hooked bill of a bird. The statuette panel has a central element of a seated human figure in the round. This probably had, encircling it, feathers in low relief, as around the serpent jaws already described. Morris (1931, pl. 11) shows two examples. This figure in the round does not seem to have been seated in a niche, as is the case with sculpture at the Caracol, on the east façade of the Monjas, or in the Puuc. The symmetrical arrangement of these elements along the façade, in a broken band above the columns, starting at the corner was C, A, A, D, B, D, C, C, C, D, B, D, A, A, C.

North Colonnade. On the wall on the southwest corner are two shields and a mask. On the façade above the round and square columns are repeating groups of a jaguar, each with speech-scroll, with a long- or short-tailed animal flanked by eagles. In general, this is not unlike the sculptured bands on the pyramid of the Warriors. The main stairway has a plumed-serpent balustrade with the head at the top, again similar to the stairs at the Warriors (Roberts, 1927).

Tula Façade

The present main temple or Monticulo B affords, with its accompanying buildings and the restoration drawn by Marquina (1951, pl. 46), much information. The group shows close affinities both with the Temple of the Jaguars and with the Temple of the Warriors group at Chichen. The Northwest Colonnade, from the back of which the stairway of the Warriors begins, is very similar in plan to the "vestibule" or colonnade and the temple behind at Tula.

Table 10 shows the most important features which appear mostly on the main temple (B) at Tula, at Tenochtitlan, and at Chichen, more commonly on the Temple of the Jaguars and the Warriors, with its colonnade, with two examples on Mausoleum II and one in Str. 3C6.

The god Tlalchitonatiuh, the Jaguar-Serpent-Bird monster, and the Toltec Warrior are considered in detail later. The mosaic undulating-step design seen on the Coatepantli at Tula will also be described presently. It should be pointed out that the features listed in the stub of Table 10 are by no means always limited to Chichen and to the structures given here.

6. GEOMETRIC DESIGNS [55]

Derivation and Distribution

There is an interesting series, mainly of angular designs, which occur as decoration on buildings, on pottery including stamps and spindle weights, in codices, and on textiles. In modern times some are found on textiles, painted gourds, and wooden objects. Whereas roof decoration is almost exclusively found on structures dating from Mexican times, the same cannot be said regarding many other elements of design appearing on the façades of buildings probably erected in Chichen II and III.

Other features, not appearing on façades but widely distributed in time and place—such as representations of Tlaloc, the lotus and fish design, and the year sign—will be compared later. At the moment we are primarily interested in designs which can be derived not from the Toltec intrusion but from earlier periods of Maya history.

Table 12 lists designs mainly appearing as part of façade decoration and shows their distribution. Whereas many, if not most, of the naturalistic designs, found in Chichen II and III, are derived from the earlier periods of the Puuc and southward, comparatively few geometric designs, noted in the Maya eras including Chichen I, pass into the later ones. To be mentioned, also, is the general absence of geometric designs in the southern sites.

Maya features are more common in the Castillo *sub* than in any other structure at Chichen. This bears on the question of the earlier Castillo as "a transition form."

It is interesting to note that the distinction between Chichen II and III is not great so far as the features here represented are concerned. The differences come out when the types of personages, especially the Maya in contrast to the Toltec, are shown.

Greek or G Fret

The large design of this type, covering much of the façade and seen at its best at Uxmal, will not be considered. For our purposes we are interested in this figure as it appears in a continuous or a broken line along the edge of the roof, and also as it is seen in a few other places.

Chichen. As already noted, the fret is the most common of decorations here (fig. 77). It is on the Castillo, the Mercado, the Temple of the Warriors and its Northwest Colonnade, and on the Temple of the Three Lintels. All except the Castillo belong to Chichen III.

The cursive type of fret is also seen on Cenote Disk H (Lothrop, 1952, fig. 1), running along the body of the serpent coming from the sky, and as part of a panache of feathers on a Temple of the Warriors fresco (Morris, 1931, pl. 154,*b*).

Tula. In a rounded form (fig. 84), sometimes called a *"caracol cortado,"* it occurs on Temple B and on the Coatepantli. The design also appears on a serpent column (fig. 121) running around the stone just above a ring of feathers.

Xochicalco. The same design (fig. 128) runs along the cornice of the platform of the main structure and also along the bodies of the undulating serpents.

Los Sacrificios. A late polychrome pear-shaped vase from this site has a line of "cloud symbols" or frets running below a band of warriors (Du Solier, 1943, p. 78,*o*).

Guerrero. A flat Toltec gold ring, from Texmilincan, shows two intertwined serpents with this "cloud ball' design running along the back of the reptiles, and an inner ring of the same decoration. This dates from Toltec times (Lothrop, 1952, p. 10).

Teotihuacan. Here the design appears on the frescoes, both with and without the projection at the top. The combination and interlocking of frets on the painting in Los Subterraneos and on an altar of the Edificios Superpuestos recall the typical "Totonac" design (Mena in Gamio, 1922, vol. 1, pl. 30; Marquina, 1951, p. 98). A line of simple frets, in fresco, runs over the doorway of Portico 2 at Atetelco (Villagra Caleti, 1951).

In the molded features which go to make up the so-called "assembled *brasero,*" dated from the last period at Teotihuacan, is both a plain fret and one with a point or projection at the top, both of which have just been described as roof decorations.

Meander or Fret and Steps

The stepped meander is probably the most common of all these designs (fig. 87,*a*). It is called in Aztec *xicalcoliuhqui,* "greca de jicara," as it is commonly found incised on gourds in Aztec times.[56]

Classic stage. Among its many early appearances is one at Yaxchilan, Str. 23, Lintel 24. The design is noted at Bonampak on the belt of a warrior. From Teotihuacan, there is a stone or pottery object illustrated by Mena (in Gamio, 1922, 1: 290) which seems to show the stepped fret. In Atetelco (Teotihuacan V) there is a fresco, "Mano de Tlalco," with this design (Borbolla, 1953, fig. 216).

Puuc area. In this district the fret is very common at Kabah, Labna, Xpuhil, on the Chacmultun fresco, at several Campeche sites, and in Rio Bec. At Uxmal the same figure is noted on the façade of the Governors, on a graffito in the same structure, and on a kind of celestial band in the Adivino.

Chichen. This stepped fret is noted on the Casa Colorada, the Monjas, the Iglesia, and the Temple of the Initial Series. It seems a common design on the foundation of a panache worn on the back (usually) of Maya figures. Among other places the design is seen on two of the seated individuals (VI, VII) on the south bench of the Temple of the Chac Mool (fig. 671), on the south column of Str. 2C3 (fig. 631), and on Cenote Disk M (fig. 619). One also appears on one of the spindle weights from here (fig. 501); another is painted in yellow, red, and blue on one of the wooden darts from the well.

Tula. The fret occurs here on the design of formalized weapons, appearing twice on each side of the square columns (fig. 561).

Tajin. It appears on the Great Pyramid and in Tajin Chico.

Pottery. One of the most widely distributed designs on the ceramics of Middle America is this stepped meander. Among the places where it is found are: Costa Rica—Nicoya Polychrome; Honduras—Ulua; Guatemala—Motagua Valley, Quiche, Atitlan, Uaxac Canal, Zaculeu, Lake Peten; Mexico—near Palenque, Yoxiha, Acanceh, Campeche, Mitla, Monte Alban II and III, Mixteca, Ranchito de las Animas, Tenochtitlan, Tenayuca, San Miguel Amantla, Huexotla, Tlaxcala, Cholula, Tepoztlan, Puebla, and the Chalchihuites.

Codices. The stepped meander is seen on a temple in Nuttall 15 and also in Vienna 4, Mendoza 33, and Bodleian 17, 23. Many times this design appears in Sahagun, on Aztec shields, especially the feathered one at Stuttgart, and over 20 times on shields demanded as tribute (Peñafiel, 1890, vol. 2, pls. 230–59). The beautiful jeweled shield depicted in the Codex Kingsborough (pl. 223) has this fret; one also notes it in the Lienzo de Tlaxcala.

Double Meander and Steps

Classic stage. This design is shown in figure 87,*b*. At Piedras Negras, Stela 14, there are steps joining two frets. At Palenque, Palace House B, are two connected steps, diagonally arranged, with a fret at either end. This is also seen at Xlabpak, Yucatan. It appears seven times on the band on the west front of the Adivino at Uxmal. It is on the Nicoya Polychrome of Costa Rica and on the Ulua pottery. In Magliabecchiano 6 the figure, called a *jicara tuerta,* is on a *manta.*

Curved Meander and Steps

This is a common design (fig. 87,*c*), second in frequency to the meander and steps. It is noted on the façades at Mitla and at Tamuin in the Huasteca. It appears on the Nicoya Polychrome of Costa Rica; on the pottery from Ulua and Yojoa, Honduras; from Nebaj, Guatemala. In Mexico it occurs at Cholula, Puebla, in several Aztec sites, in the Chalchihuites, in Cerro de las Mesas, Cerro Montoso, Cempoala, and the Huasteca, Oaxaca, and in the Mixtec horizon. In a post-Columbian Mixtec codex, the design appears on a "rosary."

Undulating Steps

This design (fig. 87,*d*) is on buildings at Uxmal (Adivino), Labna, Tula (Coatepantli), and Mitla. On pottery it is seen in El Salvador; Ulua in Honduras; Motagua Valley, Utatlan, and Santa Cruz in Guatemala; Cerro de las Mesas in Veracruz; and in the Chalchihuites.

At Tamuin and at Mitla (fig. 87,*e*) the figure appears with the curved meander. The double of this is also seen at Mitla.

At Teotihuacan the undulating motif is found along the façade of a temple shown on a fresco (Bliss, 1947, no. 124).

This device is the place name of Tilantongo, Oaxaca, "the hill of the black places" (fig. 88). It is very common in the Vienna and the Bodleian (fig. 144), especially as this site is one which figures in the Mixtec lineages. The same form is noted in Nuttall 45, shown in varied colors in connection with a ball court, and in Borbonicus 64.

In the post-Columbian Mixtec Codex Yanhuitlan, these steps are at the bottom of many place-name glyphs. Jimenez Moreno and Mateos Higuera (1940) consider the sign to mean "earth." It is also used in this manuscript as a seat for a god and as a design at the waist of a small stone figure (Berlin, 1947).

"Saw-tooth Zigzag Band"

This is the term used by Seler for a very common form of cornice or medial molding design (fig. 87,*f*). It is seen at Uxmal, Labna, Kabah, and other places in the Puuc. It is the pattern called in Mexican pictures, Itzcouatl, obsidian serpent, and Xiucoatl (the latter god is discussed later).

Chichen. It appears on the Iglesia, the Monjas, Temple of the Three Lintels, and the Castillo *sub.*

Double Saw-tooth with Alternating Panels

Seler calls this design (fig. 87,*g*) a "diagonal saw-tooth band." Again, this is common on the Monjas and on the Adivino at Uxmal.

Chichen. The two end walls of the second story of the Monjas are covered by this device. Both here and at Uxmal, a rosette-like form may occupy the center or the crossing of the squares. It has already been noted that the designs just enumerated are, in general, lacking from structures in Chichen II and III. The only exception is the Castillo *sub.*

Guilloche

This twisted band, usually consisting of interlocking serpents, which we have seen on the Castillo *sub* and the Temple of the Jaguars, is considered under serpents. The simple design occurs on one of the gilded copper disks (fig. 276) from the Cenote.

Rosette

This is a rather widely distributed feature and takes many forms. It will be mentioned here in connection with only a few places.

Puuc. This design seems clearly to have been common, especially at Uxmal. In some places, it takes the form of a feather-decorated shield. At intervals it runs along the upper cornice of some of the buildings of the Monjas. The simpler design forms a band above a few of the masks of the northern structure of this group. In some of the examples of the double form of the "saw-tooth band" (fig. 87,*g*) the center is occupied by a flower-like design. On the Adivino the rosette is also found.

Chichen. This ornament occurs in Chichen I, II, and III. In the Castillo *sub* it appears at intervals above each of the two saw-tooth bands. It is also on a cornice stone on the Akabtzib (Ruppert, 1952, fig. 140,*e*).

In the second story of the north and south façades of the Monjas, the rosette is seen 11 times as part of the center of the design, with two large frets at either side (Totten, 1926, pl. 30). As at Uxmal, there is a line of rosettes at the top of some of the masks of the Monjas, and it also appears here at the crossing of some of the saw-tooth squares (Seler, 5: 226). Seler (5: 245) shows a human torso holding a bone and wearing a rosette at either shoulder. This, in his time, was leaning against the wall of the Iglesia.

A stone with this ornament was worked into the stairway of the lower platform of the Caracol (Ruppert, 1935, fig. 72). In the Temple of the Jaguars it is found in the spaces between the interlocking serpent bodies on the outer walls. Seler (5: 260) shows a corner block of the upper medial cornice. On the two rings of the Ball Court is the same arrangement.

This is also seen in the serpent guilloche (fig. 89) on the cornice of the dais of the Northeast Colonnade. From the Cenote there came many jade ear ornaments, often in pairs, with various types of rosettes.

Tula. Here is a design on a stone (fig. 90) similar to that just described from Chichen. It is also seen on Toltec back-shields.

Mexico. The *adornos* on the assembled *braseros* in late Classic times often take the form of flowers and conventionalized designs such as rosettes, as well as of shells and birds. Among the many places where the rosette occurs is at Tenochtitlan in the Escalerillas along with the Tlalocs. Here it often appears as a kind of shield with feathers at the bottom (Batres, 1902, p. 35).

Codices. In Magliabecchiano 8, there is a rosette among the ornamental clothing designs, called the *"manta del sol."* The sun disk, discussed in another place, often takes the form of a rosette; the back-shield of the Toltec sometimes has the same design, a circle divided into quarters.

Shields

The façade design of shields at Chichen on the Temple of the Jaguars and the Castillo *sub* is considered under the defensive weapons of the Toltec. Those on the façade on the Monjas have just been mentioned under rosettes.

On each of the two corners of the North Colonnade are two shields with a design divided into quarters. These and others are also mentioned under the sun disk. In the Chultun Group two columns on the south building are sculptured (on the front only), each with two shields of the rosette type (Ruppert, 1952, fig. 150,*c*).

Interwoven Cross

This fylfot design joins the list of those features which are found, spatially and chronologically, over Middle America and extending into both South and North America.

Classic stage. It is especially common at Piedras Negras on the elaborate bags carried by the figures on Stelae 2, 6, 7, and 9. Below it there is often a human head upside down, possibly representing a trophy.

Among other places, the figure is found in the Nicoya Polychrome of Costa Rica, which is placed chronologically with Plumbate; in the Ulua Valley; Nebaj, the Alta Verapaz, and other sites in Guatemala.

Chichen. On the wall above the bench in the inner room of the Temple of the Warriors the interwoven cross appears as a graffito (fig. 91) scratched through the painted body of one of the serpents. A sherd from the Cenote is incised with this cross. One of the gold masks (fig. 92), also from the Cenote, has it below each eye. Here it is usually described as the sign of gold. This fylfot appears, however, in many other places in periods when gold had not put in an appearance. There is no certain interpretation of the symbol appearing on a Cenote mask as meaning gold.

Uxmal. The same cross is seen twice on a band of geometric figures in the lowest structure of the Adivino (Seler, 1917, fig. 78,*a,c*).

Aztec sign for gold. Bowls of gold dust from the Tribute Rolls and a figure which shows the reducing of the metal in a crude furnace are shown in figure 93,*a,b,c*. The cross design is noted on the disk in the midst of the flames. Figure 93,*d,e* represents gold as shown in the Aztec codices.

From each cheek of the great stone head of the goddess Coyolxauhqui, "the one whose face is painted with bells," hangs a bell and above each the sign for gold (Seler, 2: 8C4).

The breast of a seated figure of the sun god, "the god of the precious metal," in the Basel Museum shows this design (Dietschy, 1941).

From Huexotla an Aztec sherd shows the same thing; Waldeck drew a vessel "from a Mexican Museum" with a slightly different design (Brasseur de Bourbourg, 1866, pl. 55).

In the seventh section of the *tonalpohualli* in the Bologna (fig. 94) and in Vaticanus B, a somewhat similar design represents crossed bones and death or Mictlan. The same design (fig. 429), along with skulls, occurs on a jar from Cholula.

Cross with Flames or Frets

This is a design (fig. 95), difficult to describe, which appears widely distributed in time and space. It is highly probable that there is no historical relationship among the examples of it. The first (*a*) is on Stela 7, Piedras Negras; as we shall see, it has the fylfot and the year sign feature, the latter also of wide dispersal. This monument has the date 9.12.10.0.0 (A.D. 682). The second example (*b*) is on a fresco in the Palace at Palenque. Another (*c*) is on the Adivino, Uxmal. The last (*d*) is on Pilaster H2 in the Temple of the Jaguars at Chichen, where it is above the main figure and below the mask. It is probably not a place name.

Plaited Tape

This flat matlike figure, either isolated or in a band, is another design with a wide distribution in time and space.

Classic stage. This knot is one of the most common in the Great period. The first record of its appearance seems to have been on Stela 1 at Tikal (fig. 96,*a*), which has a very early date in Cycle 9. Here, from the breechcloth, hangs a rope at the end of which is a realistic knot or, as called here, a plaited or woven tape. "As elaboration progresses," Proskouriakoff (1950, p. 97, fig. 35) writes regarding the realistic knot, "and outlining elements become a feature of the design, this form is often outlined in neglect of its logical structure" as a knot. Other examples are in figure 96,*b-e*.

This appears in rather definite places, in relation to various personages. Its most common position is at or near the bottom of the elaborate apron as at Tikal. It is also seen in the same place at Copan, Quirigua, Naranjo, Seibal, Yaxchilan, Piedras Negras, Palenque, and other sites. In figure 97 are examples of some of these types.

It is found at either end of the ceremonial bar; at Tikal on Stela 1, where it also appears realistically; and at Copan, Quirigua, Seibal, and other places. As a simple braided ornament, hanging from a necklace, it appears at Yaxchilan, Stela 4; Tikal, Stela 9; and three times at Palenque (Proskouriakoff, 1951, fig. 22). Peabody Museum has two examples of this design in stucco from Yaxchilan.

At Copan, Quirigua, and Yaxchilan it occurs at the side of the headdress; at Piedras Negras on the skirt; and at Yaxchilan as a leg ornament. On the famous polychrome vase from Uaxactun the plait is visible on the back of the figure. At Tikal it occurs twice as graffiti.

The month sign, Pop, as used in the inscriptions, shows this knot.

From this list it seems fairly certain that the conventionalized knot has no special meaning other than as an ornament derived from a knot.

Some unique obsidian flakes were found both at Uaxactun with vessels of the Tepeu 2 phase and at Tikal under Stelae 16 and A-21. There seem to have been one set of nine at Uaxactun and two sets of nine each at Tikal. In these incised figures, five show the plaited tape design (Kidder, 1947, figs. 69–72).[57]

Los Chenes. In stone architecture the design occurs both at Hochob and at Tabasqueño (Seler, 1916, pp. 34, 36), as part of the vertical element in the "pillars" at either side of the center unit of the structure.

Puuc. On the façade of the Labna palace, the figure also occurs in panels. At Keuic a modification of it appears between the split columns.

Chichen. At the Temple of the Owls, on the columns and the jambs, this knot is the most important element of the design. On the side of one of the jambs eight knots, one above the other, appear. On the columns, it often occurs in pairs above and below the owl (fig. 98), with the knots below the owl, as on the west side of the west column.

At the Casa Colorada, the knot is noted above the nose of a mask (Seler, 5: 250). An excellent example (fig. 99) is found at the back of the wooden figure with gold mask from the Cenote. It also appears on the famous bas-relief in the Lower Temple of the Jaguars, hanging from a bead pectoral (fig. 628) and in front of the nose of another personage, A14. Both are Maya.

In the Temple of the Atlantean Columns, two braided mats appear as a pectoral. Proskouriakoff (1950, p. 65) speaks of this design as coming into use in Early Classic, remaining in use in Late Classic, and "coming again into use in the Toltec Period at Chichen Itza."

In Mausoleum III, balancing the star symbol and the binding-up of the eight solar years (fig. 313), is the plaited tape. It may, perhaps, be interpreted here as another symbol for the "year bundle."

In the Northwest Colonnade the design has possibly recovered its functional purpose. On a column (fig. 100) a skirted donor seemingly has the ends of his *maxtlatl* hanging outside the garment; and the design in question is seen in these woven ropelike terminals of the breechcloth. On another column (fig. 521) of the same structure, the knot hangs from the neck ornament down to the knee. This figure is an "anomalous" Toltec, whereas the other figure is regarded as a Maya. The *maxtlatl*, as we shall see, is usually worn only by persons of this nationality.

A Maya on the Northeast Colonnade (fig. 670) wears the knot as an end of a breechcloth. It is also noted on a figure on a Cenote jade.

Tulum and East Coast. In the Temple of the Frescoes at Tulum are painted figures who wear the knotted design as part of a headdress. The device is noted at intervals on the wandering serpents on the frescoes in the West Passage, as well as on the north wall of the Temple of the Diving God. Here the figure of the god himself shows a knot above each foot.

On late *braseros*, many of which have been found on the East Coast, the woven "mats" occur in stucco on heads and as breast ornaments (Lothrop, 1924; Fernandez, 1945, 1945b).

Los Sacrificios. A small jade with "the matting design" was discovered here by Du Solier (1943, p. 80,*j*).

Pottery. The woven-tape motive is a very common one on ceramics. It is especially prominent in the Ulua Valley, both as a band and as an over-all design (fig. 101) suggesting a basket. This occurs on Nicoya Polychrome. An excellent example (Ricketson, 1929) of the all-over decoration is shown from Baking Pot, British Honduras.

Two vases of fine slate found in Yucatan, one from Maxcanu and the other from Ichmul, have the rope design (Vaillant, 1927, figs. 301, 393). Sherds from a calcite vessel taken from the Cenote show the woven figure incised.

Mexico. Among many places in Mexico, Matlatzinco I is mentioned.

Oaxaca urns. A figure of the goddess 13 Serpent is represented in these vessels. She wears a woven band across the forehead. The element of this crown is not a braided tape but a ropelike textile (Caso and Bernal, fig. 285).

Codices. In the Maya manuscripts, the knot is noted in several connections. In Madrid 90c three gods each carry a rope arranged in a circle with the knot at one side; in 101c Gods D and C may be preparing a mat, indicated by the plaited design; in 79a and 80a a black god holds up an offering of maize (kan), on top of which is the knot. In the Mixtec manuscripts, plaited mats are also present.

Bar and Dot

In addition to designating numbers from 1 to 19 in the Maya system of hieroglyphic writing, bars and dots also occur on Zapotec stelae, in other places in the vicinity, and in some manuscripts where they also signify numbers, as will be pointed out presently.

In addition, the bar and dot, together or singly, occur occasionally with what looks very much like glyphs. They seem, however, in our present state of knowledge, not to denote enumeration. Some of the examples will be reviewed here.

Chichen. There are three instances at this site of designs of this type which seem to serve as place names, a subject considered in Chapter IV-1. In the Lower Temple of the Jaguars there is a sign above the second of two Maya who bear gifts to the central figure. It appears (fig. 627) to represent a bar and two dots. In the North Temple, above one of the Maya on the east column, is a glyph and a bar below. In the Temple of the Warriors, on Column 17W, there is, seemingly, the sign 10 Rabbit (fig. 639), the name which goes with an "anomalous" Toltec. This animal is the name of the Aztec day *tochtli*.

Tula. A stone encrusted in the wall of a house seems to represent the bar of the number 5 (fig. 102). The glyph itself may represent a jaguar. The bar has cross lines which link it with other bars to be described.

Xochicalco. Here, on the famous bas-relief, are numerous figures (fig. 103), possibly representing flaming incense-burners, and other signs below which are represented by various bars and dots, showing the numbers from 2 to 6 and from 8 to 10, 8 being the most common (Seler, 2: 139–50).

State of Mexico. From Chalco (fig. 104) there is a stone box

on one side of which is a glyph with a bar and, above, the "flames" as seen at Xochicalco (Seler, 2: 161,*a*). On a monolith from Tenango appears a glyph with the year sign above and the number 13 below.

Oaxaca. As noted above, various stelae at Monte Alban show bars and dots. Caso (1928, 1937) has made a special study of these and the glyphs on the Zapotec stelae. In his Glyph A, he shows a certain similarity between two glyphs from Stela 9 (west), a design at Xochicalco, one (already mentioned) from Chalco, and the one noted in the Lower Temple of the Jaguars at Chichen.

Thompson (1941a), who has made a study of these "Zapotecoid glyphs," also mentions the rock engraving at Maltrata and a stone from Cuilapan, Oaxaca, of Mixtec origin (Caso, 1928, p. 95).

It should be mentioned that the Laud, the Fejervary-Mayer and the Bologna codices all have glyphs with bars and dots.

Teotihuacan. At one time Beyer and, later, Caso (1937) regarded various bars and dots appearing here on frescoes, pottery, and shells as a series of dates. Caso shows a design with a bar and two dots on a vase. Linné (1934, p. 18) has one which is somewhat similar. There are others on shell trumpets from Teotihuacan which have the year sign with numerals below. The center design in the fresco of Teopancaxco (Casa de Barrios, Gamio, 1922, pl. 34) rests on a very questionable number 8.

7. REPRESENTATIVE ART

We now turn to the subject matter of art: the representations of animals, plants, human beings, gods, and so forth. As with other sections, the basis of comparison is Chichen in its Mexican periods. No great distinctions are made between Chichen II and III.

7A. Sources of Information at Chichen

Bas-relief. Probably the greatest amount of information—documentary material on the religious, military, and to some extent the secular life, together with ethnological data of Chichen II and III—is derived from the extensive stone bas-reliefs found here. No other archæological site in Middle America, nay in the New World, furnishes such a multiplicity of detail as that found at Chichen. Bas-relief appears on façades and other exterior walls, on the back and sides of interior walls of temples, on door jambs and pilasters, lintels, capstones, square and round columns, panels, altars, and benches.

Carving in the round. Examples may be seen on several more or less permanent objects in an architectural setting, as well as the figures in the round in niches on the façades of buildings.

Stucco modeling. There is comparatively little at Chichen but it is especially common at such Classic sites as Palenque and, in a much later period, at Mayapan and on the East Coast.

Wood carving. There are excellent examples, especially on the lintels of the Temple of the Jaguars and the Castillo at Chichen.

Frescoes. Most of the paintings seem, in general, to be secular. They appear on interior walls, a few on exterior surfaces and three on capstones of the vault. All these wall paintings at Chichen seem to come in the periods under consideration. Toscano (1946) discusses Middle American frescoes.

Cenote disks. With the bas-reliefs and frescoes should be included the gold and copper plaques and other metal objects recovered from the Sacred Cenote. Here we have almost a literature in itself in the repoussé figures of Toltec and Maya. These will be used as fertile sources of information on ethnic, religious, and secular matters. In no place are the encounters of Maya and Toltec better shown.

7B. In Time and Place

There are a few features, already pointed out, that can be found, spatially and temporally, from the southern part of the Maya area in the Classic period to central Mexico in Aztec times: the serpent, the jaguar, the death god and his associations with the underworld through the lotus and in other ways, the rain gods, and Tlaloc. The sun gods and Venus, outside the hieroglyphic writing, seem less universal so far as their depiction goes.

In this section the elements of the iconography will be separated, to a great extent, from their context. Later, for example, the jaguar and the eagle will be taken up together as important figures in the cult bearing their names.

7C. Animals

7C1. Serpent.[58] The most common figure is the serpent. It will be considered under its various representations.

The fifth Aztec day is *Couatl*, "snake," and the sign is that of this reptile. The corresponding day in Maya is Chicchan, which might also mean snake. But the glyph for this day, either in the Maya codices or in the inscriptions, in no way represents the serpent.

Spinden (1913, p. 33) has most adequately covered the appearance of this reptile; its origin in art, in design, idealization, the processes of "simplification, elaboration, elimination and substitution"; its appearance in geometric art, and its religious aspects. He traces it as far south as Peru, north to the Maya region and Mexico, and beyond to the Southwest and southeastern part of the United States.

"The serpent is seldom represented realistically," writes Spinden, "but we may safely infer that the rattlesnake was the prevailing model. The common rattlesnake of Central America and southward is the *Crotalus durissus*." [59]

The plumes usually shown in connection with the serpent are those of the quetzal bird, *Pharomacrus mocinno*. Elaborate ear and nose ornaments or noseplugs are also often part of his picture.

Classic stage. We have already stated that the serpent was one of those features in Middle America most widely distributed in time and in place. Some of the most intricately carved serpents belong in this early era.

Feathered serpent. The association of the symbol of the earth and the feathers of a bird is a very common one. The name of that problematical figure, Quetzalcoatl in Nahuatl and Kukulcan in Maya, means "feathered serpent." The intimate part played by this personage in Toltec history has been covered, and it is natural to expect his appearance to be especially prominent at Chichen in this period of its history.

It is quite certain that feathered serpents are not exclusively found in Toltec sites. Some of the finest reptiles of this type occur on the west range of the Monjas at Uxmal, a site which dates primarily from the latter part of the Classic period. There are many others in the Yucatan-Maya sites.

Chichen. Feathered serpents belonging to the Toltec period are especially well shown in the Temple of the Jaguars. On the frescoes some of the leaders of the Toltec warriors, in their attack on Maya villages associated with feathered snakes, are recognized. Two are shown in figures 105 and 106. The reptile with the second figure resembles the one in the doorway of the Castillo (fig. 107) and also the one in the Lower Temple of the Jaguars (fig. 108).[60] These all represent Toltec personages.

Two figures in the same bas-relief (figs. 194, 634) have their faces in curious jaws, each of which seems to go with the body of a rattlesnake. In the first one, its vertebrae appear and its "name" above shows two bones. The two human figures are clearly Maya, indicated by the harpoon, the shield, and the leggings. It is unusual to find one of this nationality associated with a serpent.

The center of this whole bas-relief is a feathered serpent (fig. 109) behind an altar, with a curious form at one side which has a Tlaloc face and possibly represents a ball-player, as will be pointed out later.

The painted stone bas-relief on top of the stone table (fig. 574) supported by 15 atlantean statues, formerly standing in the atrium of the Temple of the Jaguars, shows two Toltec warriors, one of whom has a winding feathered serpent behind him. The association of a figure in front of a feathered serpent with a sun disk is not uncommon at Chichen. The best examples are on the three faces of the carved wooden lintel at the Temple of the Jaguars (fig. 270). On the North Temple of the Big Ball Court on the north wall is another good example of a figure within a sort of solar circle (fig. 272) in connection with three standing Toltec warriors, one of whom is in front of a feathered serpent.

There is a striking parallel to this scene (fig. 273) as part of the design on a cylindrical carved vase in the Vienna Museum. Published with this is a jar of similar technique in the same museum, with two panels each showing two Toltec. There is good reason for thinking both vases were from Tula, but they may have been trade pieces.

On some of the structures belonging to Chichen III this serpent also appears. In most of these designs the rendering is far inferior to that on buildings assigned to the previous period, for example, in the Temple of the Wall Panels, the cover of a stone cist (fig. 110) and part of the north panel (fig. 111). In the same class of execution belong two figures from the cornice of the altar of the Northeast Colonnade (figs. 112, 113), the latter with a dish, possibly of blazing copal. On the three sides of the dais of both the Northwest and the North Colonnades there is a continuous line of 31 or 32 figures in each composition. All but four on each altar, two on each side, show a Toltec warrior, each with an undulating serpent. Part of the front of the dais of the Northwest Colonnade (fig. 114) shows four warriors meeting before a bowl of some offering. Above is the typical frieze with serpents, miniature human figures, and a vessel between.

As the center of the design on the dais of the Mercado (fig. 115) is a group of three. This may well show the sacrifice of two victims with the executioner above, in connection with a feathered serpent.

Cotzumalhuapa region. Here the feathered serpent representing Quetzalcoatl does not seem to be used to any great extent (Thompson, 1948).

Tula. A stone near here was found with Quetzalcoatl shown in much the same way as at Chichen. Above the figure of the warrior (fig. 116) and the feathered serpent is the Aztec sign, *ce acatl* (1 reed), the day when the god was supposed to disappear and was changed into Venus, the Morning Star. Another stone carving, now in the Cleveland Museum, evidently one of several similar ones (fig. 117) and said to have come from Tula, shows the identical serpent of the previous design. A feathered serpent (fig. 118) is shown on the heel of the sandal of one of the large atlanteans. The rounded fret, here possibly a cloud symbol, has already been discussed.

Balustrade with intertwined serpents.[61] *Chichen.* The motive of a serpent or, more commonly, two interlaced reptiles beside the stairway of a pyramidal temple is common here. At the Castillo, there is a single head at the bottom on each side of the north stairway. Other heads occur, one at the top on each side on the balustrades of the four stairways of a platform mound, Str. 3C3 (fig. 56). At the High Priest's Grave there are a head and a tail at the top of the ramp, with corresponding tail and head at the bottom.

At the Caracol the stairways on both the upper and the lower platforms had balustrades of intertwined serpents (fig. 120) practically similar to those just described. The balustrade on the West Annex here should also be mentioned. Str. 5D1 probably had the same serpent arrangement. Serpent heads were found at the bottom of the stairway on Str. 3C17. On the platform of the Temple of the Jaguars (fig. 85), on either side of the short stairway, there is a projecting head at the top of the balustrades, a body with tail and feathers appearing on the side.

At the North Colonnade a plumed-serpent balustrade is reported with the head in the round at the top. On Mausoleum I there are projecting heads at the top of each of the eight balustrades; running down, in each case, is the body of a serpent (Proskouriakoff, 1946, pl. 24).

At the Temple of the Warriors a serpent head projects at the top of the stairway ramps. On each side an undulating serpent's body is incised, with rattles and feathers at the lower end (fig. 119).

Mayapan. [Stucco remains of what probably were serpent heads have been found at the base of the stairway of the main temple, as well as stone heads at the base of the stairway of Str. Q-218. One stone tenoned head may have fallen from the top of a balustrade of Str. Q-82.—T. P.] The tails of reptiles are also reported.

East Coast. El Meco and Cancuen have serpent heads in connection with a stairway.

Tula. No serpent balustrades have yet been observed here.

Xochicalco. There are on the balustrades of the main temple what seem to have been the belly markings of serpents. Above these seem to be feathers and a serpent head at the top (Marquina, 1951, p. 139).

Tenochtitlan. There was evidently a balustrade on the Templo Mayor, ending in a serpent head. Other serpent heads have been found here.

Stairways connected with horizontally placed serpents. *Chichen.* At the top of each balustrade of the short stairway at the Temple of the Jaguars a serpent head projects, the body and tail of the reptile coming out, probably, at another place. The head of the animal is also found at the back corners of the structure.

At Mausolea II and III serpent heads project from each of the corners, and the undulating bodies form the top element of the design.

At the end of each of the Ball Court benches there is a projecting serpent head. The body runs along the top of the design on each of the four end panels, with the tail in bas-relief running down to the bottom of the main design. There seems to be no serpent over the center panel on each side.

"Serpent bands" are recorded on Strs. 4C3 and 5B21.

Tenochtitlan. In Duran's drawing of the Great Temple is a line of serpent heads in front of the stairway.

Teotihuacan. Here six serpent heads project on each side from the balustrade of the Quetzalcoatl temple; the corresponding bodies and tails are represented horizontally along the terraces, with other heads, bodies, and rattles on the face of the various levels.

FEATHERED SERPENT COLUMNS. *Chichen.* In place of the two round or square columns supporting the entablature of the temple, there are the striking and well-known serpent columns, the projecting capital of the pillar forming the feather-decorated tail; the shaft—often carved with bands of feathers representing the body, and the head with a projecting tongue—is in front of the base of the column.

There are round serpent columns at the Castillo, the Temple of the Jaguars, the Temple of the Big Tables, the Temple of the Chac Mool, the Temple of the Wall Panels, and Str. 3E5. The same type with square pillars is seen at the Temple of the Warriors, the Temple of the Little Tables, and the High Priest's Grave. The atlantean figures in bas-relief on part of the capital of some of the columns have been discussed. In the Chultun Group were discovered two tails of serpent columns.

Mayapan. Feathered serpent columns occur here. [There are two pairs of columns with stone heads, each head separate from the shaft. Elsewhere the heads are executed in stucco and sometimes have grotesque forms.—T. P.]

East Coast. At Tulum the serpent column occurs on the Castillo and at Nisucte.

Tula. One of the first carved pieces found here and taken to the National Museum was part of one or more serpent columns (fig. 121).[62]

Marquina (1951, p. 153), in his restoration of the Main Temple, shows a portico supported by two round pillars of this type, exactly similar to those at Chichen.

In the "Song of Quetzalcoatl" we read "In Tollan, alas, stood the wooden temple. The serpent pillars (the erect serpents) still stand (there)" (Lehmann, 1922).

UNDULATING SERPENT. *Chichen.* Several have already been shown. The most common representation of the feathered reptile is sinuous. Two excellent examples are found on Strs. 2C1 (fig. 122) and 2C4. Each temple has incised on its two columns a twisting serpent with a head at the bottom and rattles at the top. On the Temple of the Jaguars, just below the first line of intertwined serpents on the outer front wall, there is an excellent example of two sinuous serpents in connection with the panels of "spools" and rosettes.

The more common type of arrangement of serpents is where one animal is following another.[63] This is found on the projecting cornice of seven altars or benches here at Chichen and duplicated at Tula and at Tenochtitlan. In some cases, between the two heads of the serpents which meet in the center of the front or sides of the platform, there is a bowl with an offering. This is sometimes reminiscent of the Aztec *zatacapayolli,* which is described in another place.

On the dais of the Northwest Colonnade (fig. 123) there are two serpents facing each other on the front and also on both sides. A human head and shoulders emerge from each jaw; between them is a bowl containing an offering.

The altar of the North Colonnade has a bas-relief very similar to that just described, the arrangement of serpents being slightly different (Charlot in Morris, 1931, p. 336).

In the gallery of the Mercado, east of the door to the patio, there is a dais with two undulating serpents on the front cornice and one each (fig. 126) on the sides. In the curves of the reptile is a half-star design. On the cornice of the Northeast Colonnade there is a serpent guilloche with a rosette in each interstice. The meandering serpent also appears along the top of the bench in the north room on top of the east range of the ball court near the Mercado (Ruppert, 1952, fig. 129,*c,d*).

There is evidence of a similar cornice on the fresco of the south bench in the Temple of the Chac Mool (Morris, 1931, pl. 138,*d*).

It is probable that at one time there was a cornice on the sculptured bench in the southern portico of the Toltec addition to the Monjas. The procession of Toltec warriors below the serpents on these monuments, with or without Maya prisoners, is considered later.

On three sides of the main structure of Mausoleum II, both at the top and bottom of the main design, run a line of serpents, numbering over 50 in all.

Meandering serpents occur on the Temple of the Warriors, on the edge of the atlantean altar, on the altar panel in the fresco, and also painted on the back wall of the Northwest Colonnade (Morris, 1931, pp. 415, 438).

On the Cenote gold disks, the sinuous serpent often appears as part of the picture of the figures coming from the sky. On Disk H (Lothrop, 1952, fig. 1) there is a design running along part of the reptile's back which is not unlike that presently to be seen on the serpents at Xochicalco. This running fret figure has been described as a common roof ornament at Chichen and at Tula. Much the same reptile encircles the eyes of the gold mask of Tlaloc, as well as in other representations of this god.

A design (fig. 87,*g*), possibly representing quite a different type of undulating serpent, has been designated "a saw-tooth zigzag band." It is seen on Yucatan-Maya buildings and on the Castillo *sub.* This was described in Chapter III-6.

In the Temple of the Chac Mool, on the wall of both chambers, there were at one time eight great meandering serpents (fig. 245). Along the entire length of each body were "teeth," and "serpentine characteristics are (sometimes) supplanted by bird claws . . . and plumes are supplanted by floral appendages." This is undoubtedly a representation of the god Xiucoatl and will be considered later.

The sorcerer, on the columns of the Northwest Colonnade and in other places, carries a staff of a sinuous serpent (fig. 659). The same type of reptile is shown as a breast ornament on Column 15W in this colonnade.[64]

The two columns supporting the façade of the Lower Temple of the Jaguars have on the four sides of each a vertical undulating serpent (fig. 615) as a background to the figure. Each tail extends down a short way into the mask below. The human figures are each supporting a mask at the top. All seem to be Maya.

The upright undulating serpent is in many cases associated with an altar and often with human sacrifice. The best examples are noted in the Temple of the Jaguars and the Temple of the Warriors fresco. Usually the end of the reptile's body flows over the top of the altar. It will be suggested later that a circular form noted twice at the bottom of the west wall of the Temple of the Jaguars and in the vault of the upper fresco may represent a sacrificial stone. A figure with a feathered serpent is nearby, together with a canopy of feathers which Seler suggests may represent a temple.

In three of the beautifully carved jade beads from the Cenote is an undulating serpent. In the first example (fig. 124) one follows another in much the same way as on the cornices just described. On another (fig. 125) two reptiles meet; one emerges from a shell and the other holds a bearded Toltec in its jaw. A third is shown in figure 564.

Tula. In the restoration of the façade of the Main Temple we have seen Marquina's drawing of the meandering serpent in connection with "spools" and rosettes, almost identical with the same type of serpent on the Temple of the Jaguars at Chichen.

There is an identical portrayal of reptiles on the frieze of the benches both in the colonnade of the Main Temple (fig. 127) and on that in Sala 2 of Edificio 3 (fig. 600). The similarity to the same reptiles on the dais or bench of seven structures at Chichen is very striking.

Xochicalco. The well-known sloping wall of the foundation mound here shows (fig. 128) excellent examples of the same wandering design. There are two of these serpents on each of three sides. On either side of the stairway, the single serpent forms a ⋃-design.

Tenochtitlan. In the Centro Mercantil a stone (fig. 602) was found showing, above a procession of warriors, a frieze with two reptiles on each side. Surrounding the Tenayuca temple on three sides is a line of sinuous serpents of varying sizes.

A stone showing a warrior and part of another, together with bas-reliefs of a meandering serpent probably similar to the design just described, is reported, probably from Escalerillas, Tenochtitlan (Seler, 2: 891). The Mesa de las Serpientes, also from the same site, with tortuous serpents on the three of the four sides may well be the top member of a design showing a procession (Peñafiel, 1910, pp. 8, 32).

Codices. This type of serpent is very common in the manuscripts. Excellent examples are found in Dresden 35 and, in connection with the long series of numbers, in 62 and 69. In the Madrid the reptile is seen in 14–16, 18 and 30.

In the Laud 2 a god holds an undulating serpent in his hand.

SERPENT GUILLOCHE. *Puuc.* This type of decoration is particularly associated with Chenes-like structures in the Puuc, such as the Adivino at Uxmal and the Kabah buildings. The west building of the Monjas at Uxmal is an excellent example of the use of the guilloche in dividing the façade into panels. As the topmost part of masks in this group is a twisted element; another suggests the rattles of a serpent (Seler, 1917, p. 62). There are also entwined reptiles' tails at the ball court here.

The "twisted rope" is noted at Oxkintok, around the edge of Stelae 9, 10, and 21. On Stela 2 at Yaxcopoil this design separates two panels. Here the heads of the serpents definitely appear (Proskouriakoff, 1950, figs. 87, 88).

Chichen. The interwoven serpent bodies on the stair ramps have already been mentioned.

On the stone rings of the Great Ball Court are interlocked reptiles, carrying rosettes. The same design is on another ring found in pieces near Mausoleum II; the tortuous type is on one of the rings of the Monjas Court.

On the Temple of the Jaguars façade the three courses of entwined serpents with rosettes in the interlacing have been noted. The design at the end of one of the lines with the serpent head and the round design is shown in figure 129. Exactly the same design is on the frieze of the altar in the Northeast Colonnade (fig. 89). In the Lower Temple of the Jaguars interlocked serpents divide each of the seven lines of figures on the west and end walls and on the west and east faces of the vault. A head and a tail come at each end.

The medial molding of the Castillo *sub* has the same interlocking serpents, broken by shields; in the center is a vertical guilloche.

Across the playing field of the ball courts near the Casa Colorada (Str. 3C10) and the Monjas, at the end of the benches in each case, a serpent guilloche is flush with the floor.

In a small piece of wall from Str. 3D6 there are two three-member moldings at the top and between the upper and lower zone of the façade. The element in the middle of each is that of interlocking serpents, the head projecting and carved in the round. Rosettes occur in the curving bodies.

Portions of a guilloche occur on stones found near the Temple of the Atlantean Columns.

Tulum. On the outside of the Temple of the Frescoes (Str. 5) there are serpent guilloches running vertically, broken by shields. On the inside are three lines of similar interlocking serpent bodies and shields connected with others running horizontally (Fernandez, 1941, 1945). This arrangement is similar to that on the west building of the Monjas at Uxmal, except that on the latter there are no shields or rosettes.

Tula. A stone showing two tails of entwined serpents was found in the debris of the Ball Court (Acosta, 1945, fig. 5). Garcia Cubas (1875) shows a stone with the same design.

Aztec. Sometimes a serpent is entwined with a human figure. A good example of this is on a carved *atlatl* from Mexico (Saville, 1925, pl. 23).

Guerrero. A flat gold ring from Texmilincan shows a guilloche of serpents decorated with "cloud balls" (Lothrop, 1952, fig. 4).

Codices. Serpents occur in various places in the manuscripts. The Fejervary-Mayer 27–28 shows two excellent examples of intertwined serpents. In one of these the reptiles rise from an altar as a figure offers them incense.

SERPENT HEADS. *Chichen.* These are scattered about in many places; some undoubtedly were once parts of columns, façades, or balustrades.

Many have been found around Mausoleum III. They were probably once part of the façade (Seler, vol. 5, pls. 42, 43). Others are reported at the Caracol and from the molding of Str. 2C1. Serpent heads occur in the fresco of the Temple of the Warriors (Morris, 1931, pl. 169). One was found in the center of the playing field of a ball court, Str. 3E2.

Three carved jade beads from the Cenote have already been mentioned in connection with the undulating serpents. These, along with two other pieces, form a minority group which seems to be Mexican in origin. Most of the jades, especially the

amulets, are definitely Maya and date from the Late Classic. Of the two additional jades, the first (fig. 130) shows a serpent head decorated with feathers; the second (fig. 131) has a Toltec warrior with his *atlatl* in the coil of a serpent. The Toltec jade beads were badly broken, but these specimens happen to be complete.

Cotzumalhuapa. At sites on the Pacific coastal plain in Guatemala eight large serpent heads were found along with many smaller ones (Thompson, 1948, p. 21, fig. 14).

Tula. Recovered from a house in the town is a serpent's head holding in its open jaw a human head. The design on the second jade pendant just noted (fig. 131) from the Cenote is very similar to one on a carved stone lately discovered in the Palacio Quemado (fig. 132). Two other stones, one from El Coral (fig. 132A) and another from Edificio 3 (fig. 132B), each show a figure in connection with an undulating serpent.

Valley of Mexico. The two Aztec sites of Tenayuca and Tenochtitlan show the greatest array of serpent heads. In the former site, the girdle of serpents and the two serpent altars are notable (Herrera, IX; Palacios, 1935).

Various gods associated with the serpent and serpent masks and monsters will be discussed later.

Serpent fauces. There are a few widely distributed examples of a serpent with two eyes of a monster and an open mouth with the markings on the inside of the upper jaw clearly indicated.

Chichen. In the northwest corner there is one of the few assemblages. In figure 133 is the design at the bottom of a column of a building in the Northwest Group, where the body of the serpent seems to run up the pillar. The open jaw of the reptile is similar to that of serpents on the remains of a fresco discovered by Howard D. Winters at Mayapan.

In the Sweat House ball court (Str. 3E2) a serpent, said to have been found near the center of the playing field, shows the inner mouth markings (Ruppert, 1952, fig. 137,*a*).

An excellent figurine of a warrior, said to have come from Yucatan and now in the University Museum, Philadelphia, shows the face in the usual open jaw. The figure carries an oblong shield decorated with frets (Dieseldorff, 1926–33, 3: 99; see also his fig. 154).

Cotzumalhuapa. Here is a monster on Monument 7 with open jaws (fig. 134) in which are the head and torso of a person with crossed arms. From the same site, on Monument 3, the sky figure seems to be coming from the throat of a similar beast.

Zapotec. Associated with this culture is a very common small bulbous vase (fig. 135) with a human head at the top. The headdress of this sometimes shows the two eyes and the open jaw noted above.[65]

Aztec. Figure 136 shows the same design on the handle-end of a wooden *atlatl.*

Serpent in profile. *Chichen.* There are a few serpent heads outside the categories mentioned. At either end of the main design on the inside of the lintel of the Temple of the Jaguars (fig. 270) there is a grotesque example. A somewhat similar one is at the head and feet of the recumbent figure (fig. 141) on the north wall of the North Temple of the Ball Court.[66]

Serpent heads with noseplugs are found as speech-scrolls (figs. 539, 650) as in the Lower Temple of the Jaguars. Two of much the same type (fig. 614) are on an end wall of this building.

In another type of reptile, considered under earth monsters (fig. 385), a person or a god seems about to be swallowed by the creature below him.

Other serpents. *Chichen.* Serpents interwoven with the turban headdress (fig. 541), all but one of which seem to be worn by a Toltec, are discussed under dress.

In the Northwest Colonnade the snake is worn as a belt on Column 33W; it is shown above the figure on Column 33S. Both examples are on Maya prisoners. In the Lower Temple of the Jaguars, it is found around the ankles of the leader of the Toltec contingent on the bas-relief (fig. 539). The same thing is found on a Toltec on a terrace drum of the North Colonnade.

The second in command on the Toltec side (fig. 538) in the Lower Temple of the Jaguars has a short skirt of reptiles reminiscent of that worn by the Aztec Coatlicue. The figure behind carries an olla, around the neck of which a snake is entwined. Another Toltec warrior (fig. 537) has numerous serpent rattles seemingly in connection with his protected left arm.

On Mausoleum II serpents (fig. 460) are around the figures of dead warriors. In the same structure an articulate skeleton (fig. 461) has reptiles wound around his ankles and coming from his elbows and knees. He is standing on what seem to be spear-points.

Serpents come from the mouths of at least three Maya (fig. 671) on the fresco of the south bench of the Temple of the Chac Mool. A head with a similar reptile (fig. 137) is on a drum of the North Colonnade.

Reptilian features, as shown on masks and monsters, will be considered later. The Jaguar-Serpent-Bird beast, appearing as a mask, will also be discussed.

There is an interesting and unusual figure (fig. 138) on a jamb of the South Portico in the Toltec Annex of the Monjas. He carries darts and has a partially protected left arm, so that he can probably be classed as a Toltec. His lower right arm and leg each are part of the body of a serpent ending with its head.[67]

Oaxaca. Urns with a serpent mask are shown in considerable numbers by Caso and Bernal (1952, pp. 145–62), where they are associated with Quetzalcoatl.

Codices. The serpent as part of the headdress of various female figures, especially in the Dresden (22b, etc.) is not uncommon.

In Dresden 33b, God B (fig. 382) with his axe is sitting on the open jaws of a coiled snake; in 35b he is emerging from the jaws of an undulating serpent.

In the Vienna Codex there are several places (2, etc.) where two male figures, often facing each other, are represented with jaguar faces issuing from the jaws of a bird. Two serpents are the headdress of each personage. As in the Maya codices, women are shown in the Vienna Codex (3, 4, etc.), each with a serpent as part of the headdress.

7C2. Jaguar. Next in frequency to the serpent are the representations of the jaguar (*Felis hernandezi*) or puma. In Maya it is known as *balam* and in Nahuatl as *ocelotl* or simply *tequani,* "beast of prey." The word *balam* is also the term used for the native Maya priest and town official.[68]

The fourteenth Aztec day is *Ocelotl,* the sign for which is usually the spotted head of the jaguar. The corresponding day in the Maya calendar is *Ix,* usually represented by a glyph with spots.

This animal, together with the eagle, plays a very important part in the religion of the Toltec, the Toltec-Maya, and the

Aztec. The Jaguar-Eagle cult will be considered in Chapter III-9. Here the jaguar is considered *per se;* so far as possible, he will be described when appearing unassociated with the eagle, his co-partner, in the Warrior cult.

Classic stage. This animal, like the serpent, has had a place in Maya art from the Great period onward. There is the celebrated Jaguar Stairway,[69] jaguar altars, and a famous jaguar vase (fig. 139), all at Copan. The most realistic and beautiful jaguar was found at La Amelia, on the high Usumacinta (Proskouriakoff, 1950, pl. 66,*c*). The part recovered of Stela 10 at Piedras Negras shows, presumably, the legs of a colossal human figure ending in jaguar claws. Beneath this are two bands of celestial bodies including the sun, the moon, and Venus.

In the British Museum there is an amazing jaguar on part of a wooden lintel from Temple IV at Tikal (Morley, 1946, p. 31).

The shirt composed of the entire skin of a jaguar is beautifully shown at Bonampak, Room 1. Just below is a line of figures preparing the skins. In the Lower Temple of the Jaguars a figure (fig. 628) wears the entire skin as a garment, as seen in Room 2, Bonampak.

Although belonging to a later period, the jaguar and the man with the jaguar are important motives in the Nicoya Polychrome pottery of Costa Rica (Lothrop, 1926, pp. 137–45).

Jaguar seats. *Classic stage.* Perhaps the most famous of these are the two double-headed benches, dating from Late Classic times, at Palenque. The first, modeled in stucco, has completely disappeared; the second (fig. 140), in stone bas-relief, is still in position on a wall of the Palace. Another is shown on Stela 5 at Piedras Negras.

Two jaguars, back to back (but probably not used as seats), were found at Uxmal (Seler, 1917, pp. 74–75; the latter is from Stephens).[70]

Chichen. Here we are concerned, primarily, with this animal in its representations in Toltec Chichen, together with contemporaneous and later appearances in the Maya region and in Mexico. The jaguar altar is a common feature at this site.[71] The finest example was found in the inner chamber in the Castillo *sub.* The animal is painted red, has teeth and fangs of white stone, and his legs and body are encrusted with 73 disks of jade, used also as eyes. He bore on his back a mirror of turquoise and other stones (Palacios, 1945, p. 502). Another animal rests between the two columns in the Lower Temple of the Jaguars. A third came from a small mound west of the Ball Court (Morris, 1931, p. 378). Ruppert reports one in the inner room of Str. 2C6.

One was found at the foot of the Monjas stairway. This may once have been in the third story. Still another, covered with spots, was discovered in the bush.

On the three sides of the carved wooden lintel in the Temple of the Jaguars a Toltec warrior is resting on a jaguar seat within a sun disk (fig. 270). In the painted chamber within, the same combination appears on the fresco; in the temple below, a figure (fig. 271) who may be a Maya is also seated on a jaguar. In the North Temple of the Ball Court, such an altar or seat (fig. 141) appears between two Toltecs. And above (fig. 272), within a circular design, a warrior is resting on a jaguar seat with other Toltec about, as we have already noted.

In the south vault of the Temple of the Jaguars there is a jaguar surrounded by flames (fig. 392), seemingly in connection with the sacrifices there. This may be a seat or an altar.

In the Temple of the Chac Mool on the fresco of the north bench, which is devoted to the Toltec, are several warriors resting on jaguar seats (fig. 142).[72] The method here of rendering the warriors on their seats differs widely from that shown in the previous jaguar seats in the Ball Court complex of Chichen II. This, as we have seen, was one of the reasons why the Temple of the Chac Mool and the Temple of the Warriors have been placed in Chichen III.

Michoacan. A jaguar or coyote seat from Ihuatzio is shown by Caso (1941, fig. 4), who points out that this was found associated with a chac mool figure. A direct parallel is at Chichen in the Castillo, where a red jaguar, already described, was in close proximity with a chac mool. This relationship has been discussed.

Codices. Seats covered with jaguar skins are not uncommon in the manuscripts. In the Aubin Tonalamatl (fig. 143), Xiutecutli is shown on a jaguar-skin cushion. In the Bodleian (fig. 144) the famous figure of the Mixtec codices, 8 Deer, is sitting on a seat over which an entire jaguar skin is thrown. In the Nuttall Codex women are frequently seated on jaguar cushions.

Procession of jaguars. Files of both men and animals occur, the latter principally on the façade of buildings.

Chichen. The most extensive line of animals is that on the Temple of the Jaguars (fig. 85), where on each of the four exterior walls there is a continuous band of eight jaguars, each pair separated by a shield. Two are shown in figure 145; Seler (5:263) shows those on the side and back walls of the building.

On the Castillo *sub,* at the top of the moldings above the door, at either side of the middle element of vertically interlocked serpents and facing it on each side, is a line of jaguars (fig. 86).

On the facing of the mound of the Temple of the Warriors are bands of figures arranged in groups composed of jaguars, "a stubby tailed, fuzzy creature resembling a bear," eagles, and the god Tlalchitonatiuh. This combination is described under the Jaguar-Eagle cult (Morris, 1931, pp. 40–41).

In the North Colonnade there is somewhat the same assemblage of "jaguars, eagles and both short- and long-tailed animals, arranged in repeating pairs" (Roberts, 1927).

There are parts of four jaguars on various drums of columns around the Temple of the Big Tables. They may indicate a former procession. One of them is shown in figure 146.

Campeche. In 1944 Stirling visited the site of Atasta, west of the Laguna de Terminos. Berlin (1953) quotes from Stirling's notebook: In a small mound, "there is a cement-covered platform with a frieze of marching jaguars (à la Tula-Chichen) in modelled relief along the curving upper edge of the platform. Each tiger is about three feet long." His picture of this (Berlin, 1953, fig. 4,*c*) shows the feet of one animal. Later, when Berlin visited the site, "the jaguars could no longer be seen." In excavating in a nearby mound, he saw presumably a jaguar (Berlin, 1953, fig. 5,*e*) standing over a frame enclosing something undeterminable.

Cotzumalhuapa region. Here is a kind of procession. From Esquintla, Shook informs me, a flat stone was ploughed up near the ruins of Coyol. On one edge (fig. 147) a jaguar's head, in full round with incised forelegs and claws, forms the center of a design which also has, on either side, an incised jaguar, facing away from the central animal.

Tula. On the restoration of the façade of the Temple of

Quetzalcoatl by Marquina (1951, pl. 46) three pairs of jaguars appear on the topmost zone of the buildings, just below the roof ornaments. On the basal mound of the structure are at least two lines, usually composed of jaguars. Most of these animals (fig. 148) wear a rope around the neck. In a few cases a puma or perhaps a wolf is substituted for the jaguar.[73] One, seen in figure 150, is described as a stone covered with stucco.

Teayo. Seler shows two jaguars from this site, each associated with the number 1. The first is in the round; the second (fig. 149) is similar to those at Tula.

Teotihuacan. On a fresco at Atetelco two curious stylized jaguars are noted with speech-scrolls.

JAGUAR COUCHE. *Chichen.* In Mausoleum I, Le Plongeon claimed to have found, above his famous chac mool, a spotted jaguar in stone, wearing a hat (Seler, vol. 5, pl. 36). Another, carved in bas-relief on a ledge not far from the southwest corner of the Castillo, I found in 1901.

Tenochtitlan. The Le Plongeon figure, just noted, is not greatly unlike a jaguar in the round, about 40 cm. in length, probably in the National Museum.[74]

Another stone jaguar in the same museum clearly shows its spots, with forepaws directly under its head (Pijoan, 1946, fig. 242). This and another similar one, both Aztec, were exhibited in 1952 in the Musée National d'Art Moderne in Paris.

SEATED JAGUAR. *Chichen,* etc. There is a crude animal here with head turned (fig. 151). One, used as a standard bearer, was in the debris near the Monjas.

On the North Temple, north wall, are two figures which may represent this creature (Marquina, 1951, photo. 440).

A crouching jaguar is shown on a fresco in the Temple of the Warriors at the top of the stairs of a terraced pyramid (Marquina, 1951, pl. 151).

On an engraved jar from Peto, Yucatan, now in the Peabody Museum, is a seated jaguar in a kind of wreath with two lotus flowers (fig. 168).[75] Later it will be noted that the jaguar is often associated with this flower, both symbols of the underworld.

Santa Rita. In northern British Honduras a jaguar head appears on the fresco; a stone jaguar head in the round comes from Mound 8 (Gann, 1900, pls. 31, 39).

Tula. In the small ball court a seated jaguar (fig. 152) was found, wearing around his neck the same rope noted on those in a procession. This animal as a name sign is found on one of the square columns (Acosta, 1941, fig. C).

Tenochtitlan. Among the many jaguars from the Valley of Mexico is one in bas-relief from the Escalerillas; another in the round (which is famous) forms the great stone *quauhxicalli* (Seler, 2: 892, 901). A "caballero tigre" was recently found, holding in the open jaws a human face. The animal wears a necklace and a pectoral (Moedano, 1951).

Monte Alban. A jaguar in stucco is on the South Platform; the Bazan stone shows a jaguar in human form (Caso, 1938, p. 18). Zapotec figure urns in the form of this animal, together with vases of a jaguar foot, are common (Linné, 1938; Caso and Bernal, 1952).

JAGUAR COLUMNS. *Chichen.* One temple has two atlantean columns and two pilasters, all 10 figures of which wear a jaguar mask (Ruppert, 1952, fig. 143,*b*).

OTHER JAGUARS. *Chichen.* In the Lower Temple of the Jaguars one of the Maya warriors has his head in the jaws of a jaguar, whose legs and claws hang down on either side (fig. 628). On this relief there is also an excellent jaguar above the figure (G9).[76]

On the North Colonnade are at least two jaguars in full round. The bodies are in low relief; there is evidence of a human face in each jaw (Roberts, 1927).

A jaguar-like animal is probably a name sign on Column 13N in the Northwest Colonnade; the west figure on this column wears a jaguar as a breast ornament. The same animal is worn in the same place on one of the atlanteans in the Temple of the Warriors (Marquina, 1951, photo. 450). It is possible that when it is desirable to express a name on a caryatid, it must necessarily be placed somewhere on the body.

Other places. A jaguar head has been discovered at Mayapan, [as well as a large sitting jaguar executed in stucco—T. P.].

At Cancuen on the East Coast two jaguar heads are at the base of a balustrade.

There is a painted jamb at Tohcok, Yucatan, dating from the Puuc or Chenes period, showing a human figure with a jaguar-skin skirt, a jaguar tail, and jaguar feet (Shook and Proskouriakoff, 1951).

A jaguar is reported at Tajumulco, Guatemala (Dutton and Hobbs, 1943).

Codices. The jaguar is a common figure in most of the manuscripts. He is again associated with the lotus in the Dresden, where the flower comes out of his head (fig. 167). In the Nuttall are excellent pictures of personages arrayed in a jaguar headdress. Here 8 Deer (fig. 607) is shown as a bearded warrior, wearing such a head-covering and carrying an *atlatl,* round shield, and darts. He also wears a back-shield. The same warrior chief appears (Nuttall 51) with jaguar headdress and jaguar legs and claws, from which his own feet protrude in the same way as human feet come out of bird claws. On page 68 he carries a spear and round shield; one hand and both feet project from a claw of the animal, whose tail also appears.

7C3. BIRDS AND FEATHERS.[77] The brilliant plumage of tropical birds seems in some instances to be the reason for their presence in the representative art of the people. "The ceremonial and artistic importance of birds and feathers in Maya art," writes Spinden (1913, p. 77), "can hardly be over-estimated. Representations of the former occur in the glyphs and codices and upon the sculptured monuments in connection with some of the more recondite and peculiar features of religion and design." In figure 153 are shown his examples of feathers in sculpture from the Classic era.

Among the birds recognized in the Maya codices are heron, frigate bird, ocellated turkey, king vulture, black vulture, eagle, two kinds of owls, blue macaw, and the trogon or quetzal, whose feathers are those usually associated with the serpent.

Classic stage. Feathers in relation to the serpent and the bird, mainly in the early period, have already been mentioned. It is especially in relation to the headdress that feathers are most prominent.

Birds occur in connection with some of the day and the month (Kayab) signs, death (the screech-owl or Moan bird), the four directions, the *tonalpohualli,* place names, and the Jaguar-Eagle cult.

EAGLES. These will be taken up in connection with the Jaguar-Eagle cult in Chapter III-9.

SERPENT BIRD. This was first shown and named by Maudslay (1889–1902, vol. 1, pl. 99). The general characteristics are noted in the combination of the jaws of a serpent with the wings of a bird. Many of the representations show ear- and noseplugs. This type of creature is common, especially in the Classic period. The feathers of the bird linger into later times as seen, for example, in the Serpent-Jaguar-Bird mask.

THE BIRD AND THE TOLTEC. In the later ethnological discussion we will consider the realistic and the conventionalized bird as a head and a breast ornament, one of the most consistent signs of a Toltec. There are also the Toltec bird-warrior, seen on several columns of the Temple of the Warriors, and figures whose heads are enclosed in a bird's jaw.

Chichen. In addition to the birds mentioned above, this site, unlike most in the Maya area, has on its bas-reliefs and frescoes several examples of birds perching in trees.

On a circular sculptured stone at the Caracol (fig. 686), probably dating from Toltec times, are two birds. They are also on the two trees on the balustrades of the main stairway of the North Temple of the Great Ball Court (fig. 184); a few are in the trees in the bas-relief on the inner back wall of this structure (Marquina, 1951, pp. 865, 867).

In part of the Temple of the Jaguars fresco shown by Maudslay, a bird perches in the topmost tree. There is a place name in the Lower Temple of the Jaguars (fig. 612), consisting of the heads of three birds.

On the Temple of the Wall Panels are owls, eagles, and parrots, some of which are in trees, in addition to animals on the two bas-reliefs.

In the fill above the Temple of the Chac Mool is a bas-relief of flowers and birds (fig. 165). On the Temple of the Warriors fresco are birds; a crane is flying among the trees in the village scene (Morris, 1931, pls. 158–59).

The Temple of the Bird Cornice (Str. 5A1) is shown by Ruppert (1952, figs. 61, 141,*a*). A portion of a bird in the round was found in Str. 5C3.

On Lintel 1 in the Temple of the Four Lintels and on Lintel 2 at Yula there is a pelican-like bird with a human head in its beak (Beyer, 1937).

NECKLACED VULTURE. *Chichen.* Closely allied with fish and the lotus, to be considered later, is the vulture, all seemingly symbols of the underworld and death. On the lower border of the Lower Temple of the Jaguars bas-relief, probably a significant position, twice in the undulations of the lotus vine appears a vulture wearing a long jade necklace (fig. 154).

Other examples. The vulture at Chichen reminds one of a panel on the lintel of the south building of the Glyphic Group at Xcalumkin, where there is a bird figure with a long necklace (fig. 155). This is given a date about 9.15.0.0.0. (A.D. 731).

Part of the design of a polychrome vase from Yaloch, British Honduras (fig. 156) shows a vulture, decorated in the same way as the one just mentioned, above what may be a lotus plant.

Birds with necklaces are in the top of a tree in the famous Palenque bas-reliefs in the Temples of the Cross and the Foliated Cross and on the cover of the new tomb.

Mexican codices. There is a "jewel fowl," called Chalchiuhtotolin, shown as the ruler of the 18th day, Tecpatl, and also—in the guise of Tezcatlipoca—as the ruler of the 17th week of the *tonalpohualli.* The association with water is clear and hence it is natural to find the bird, as at Chichen, in connection with the lotus and fish.

OWL. *Chichen.* The temple named after this bird (Str. 5C7) shows unusual decorations. It is a single-room structure with a shrine in the center of the back wall. The two square entrance columns each have a floral decoration on the front; at their base is a semicircular orifice, into which was tenoned a human head and torso with folded arms. On the other three sides of each column and on the neighboring jambs the drums were decorated with owls (fig. 98) and the plaited knots, already described.

7C4. WATER PLANTS AND FISH.[78] In his *Study of Maya Art,* which has never been superseded, Spinden (1913) writes of the homogeneity of the art and cites three examples: the head with the curved nose-ornament, the astronomical band, and the fish-and-plant motif. The first two are practically limited to the Classic period and are absent from the later Mexican epochs which are being considered here. The last, together with representations of the god Tlaloc, the star symbol, the jaguar and the serpent have already been noted as present in all periods of Maya history.

Maudslay (1889–1902, 4:37–38, pl. 93) was the first to point out the water-plant motif and its wide distribution. Spinden broadens the investigation by including the fish and finds in the combination a "much stronger proof of culture affinity among the cities where they occur," adding, "the association of fish and flower is very unusual."[79]

Symbolic significance. This water plant, usually considered to be a lotus, is part of a complex which seems to have great spatial and temporal distribution, especially in the Maya area. The most consistent accompaniment of the lotus is a fish.

It is perhaps of some significance that most of the examples of the lotus are associated with the Classic Maya and with figures designated as Maya mainly in Chichen II and Chichen III.

With the lotus and the fish are often associated the turtle, the pelican, the vulture, and shells, together with the death god. They are all part of a complex which is clearly related to the underworld and the earth monster (the latter is considered in Chapter III-7).[80] Lothrop (1926a, pp. 160–62) discusses and pictures this complex, the various members of which will appear in many of the illustrations which follow.

Classic stage. Spinden gives examples of the plant-and-fish motif from this period (fig. 158). Each of the three bacabs in the center of the lowest row on the Bonampak frescoes in Room 1 wears a headdress part of which shows a fish nibbling a lotus. The same flower also appears in connection with the orchestra to the left in the same room.

Thompson (1950, fig. 12) adds to the collection of the lily-fish complex, as seen in the Maya Classic period, examples from Yaxchilan and other sites.

The water lily, appearing without the fish but with the head of the death god and a face with the so-called "maggot" eye (fig. 157,*b*), also a symbol of death, is in the Palace at Palenque; a lily (*c*) alone is on a beautiful bas-relief in Madrid, also from this site.

A vase, "probably from Honduras" (fig. 159), in the American Museum of Natural History shows a lotus in connection with the Long Nosed god and a pelican. The design on a stone trough at Paraiso, Honduras (fig. 160), shows the combination of three of the symbols of the underworld—death, lotus, and a fish.

The Yaloch vase, already mentioned (fig. 156), would probably come in here.

Chichen. The combination of fish and water plant is of special interest as there are no better examples than at this site.

In the Lower Temple of the Jaguars, at the bottom of the bas-relief, is a border on three sides of the chamber. On each

of the end walls is a mask, flanked on both sides by the vine with buds and blossoms and at either end a fish nibbling a flower (fig. 161). On the back wall is a continuous vine with lotus; seven miniature figures, seemingly Maya, support the stalk, the center one sitting on an unimportant mask. In addition are four vultures, two of them wearing bead necklaces. The whole complex and the actual position of the figures at the bottom of the design show the same connection with death and the other world (fig. 162). A similar pattern (fig. 163) appears as a lower border on the North Temple. Some sort of a vine appears above the lintel on the inside at the bottom of the vault of the Lower Temple of the Jaguars.

The speech-scroll before one of the main Maya figures in the Lower Temple of the Jaguars may represent a lotus (fig. 626). On the end of the south wall of this temple is a Maya figure with a turtle shell on his back (fig. 614). He wears an elaborate headdress, on each side of which is a lotus; at one of these a fish is nibbling. On both columns at the bottom on each of the four sides is a bearded mask, from the eyes of which issues a lotus vine. Four fish are eating the blossoms; below are a pelican and a turtle, more symbols of water (fig. 345).

The same mask with the lotus vine coming from the eyes (fig. 270) is on two of the three faces of the wooden lintel of the Temple of the Jaguars. There are no fish here.

On the lower border of the fresco in the upper chamber of this temple, buds and blossoms are associated with atlantean figures (fig. 164). There are at least six of these figures.

On the border of Cenote Disk H, which depicts human sacrifice, there is a kind of vine on which a possible lotus appears.

Some of the examples of this flower on structures in Group B follow. No fish are shown. The lotus or other flower appears among the atlanteans on a capital of a serpent column of the Temple of the Chac Mool. Two Maya figures (III, V) on the south bench of this temple each have a lotus at the top and in the front of an elaborate headdress (fig. 660).

On the bas-relief on the panels of the bench of the Great Ball Court a twisting vine with flowers which may represent the lotus emerges from the neck of the decapitated player (fig. 474). Death would seem to belong here.

In the North Colonnade numerous drums of columns are strewn about. Below six pairs of the feet of Toltec are some curious atlanteans among whom the lotus appears several times.

A questionable lotus appears above the figures on Columns 8E and 9E in the Temple of the Warriors. Somewhat the same design occurs in the same place in the Northwest Colonnade, Column 51S. On the south side of the dais of this structure, a vine seems to come out of the headdress. These figures are Toltec.

There is a painted bas-relief on sculptured panels found in the fill above the Temple of the Chac Mool (fig. 165) and possibly a single blossom on the fresco of the Temple of the Warriors (Morris, 1931, pl. 148,*b*). Here a bird or birds are eating the flower.

On a sculptured vault panel in the shrine room of the Xtoloc Temple (Str. 3D13) a lotus is shown (Ruppert, 1952, fig. 133,*d*). This structure would appear to show on its columns, as does the Chac Mool, exclusively Maya figures. The lotus may also be on columns of Str. 5B18 (Ruppert, 1952, fig. 142,*d*).

Other Yucatan sites. The same association is noted in the carved vase from Peto where a jaguar sits within a frame of a lotus vine and two flowers (fig. 168).

A vase from Calcetok with a human figure in a frame (fig. 169) is along similar lines.[81]

Codices. God B, the Long Nosed god, comes into the picture. He is shown with a lotus (fig. 166) in Dresden (67b), fishing (44c), and in a boat with a fish in the water (65b). He is often associated with water, rain, and the rain god. The association of the jaguar with this complex is seen in Dresden 8a (fig. 167).

7c5. Fish.[82] *Classic stage.* As with lotus, fish alone appear throughout Maya history from early times onward. For example, they are found at either side of the tun sign Introducing Glyph of an Initial Series, an arrangement especially common at Copan (Seler, 4:710).

A pelican holds a fish in his beak as part of the headdress of the figure on Stela 10 at Seibal, and in similar places on a pier of the Temple of the Cross at Palenque and in the Dresden 36b.

There is a famous dish from Ocosingo which has a fish, modeled in the round, on the cover (Seler, 4: 711). From Alta Verapaz there is a polychrome vase with fish (Butler, 1940, pl. 8).

Chichen. They are seen in connection with undulating serpents on the top cornice of Mausoleum III (Seler, 5: 368). In several of the water scenes on the Temple of the Warriors fresco they appear in addition to turtles, snails, and Crustacea (Morris, 1931, pls. 139, 146, 148, 159).

On one side of a ring of a ball court found near Mausoleum II, inside a circle made by two intertwined serpents, is a circle of 10 small fish.

In the Lower Temple of the Jaguars a large fish appears behind a Maya figure (fig. 625). The fish with lotus at this site have been described.

British Honduras. At Santa Rita are several painted figurines of fish, in the jaws of some of which are human faces. On a flat plaque is an incised figure of a bird carrying a fish (Gann, 1900, pls. 33–35; 1918). These are all very late.

Codices. Fish are not uncommon in the Maya codices. Gods B and K appear in Dresden 44c as if fishing. In 33a is another fishing scene; in 65b God B is in a boat in the water with a fish. One of the offerings shown so frequently in the manuscripts is a fish. One appears in Dresden 27c in a dish, above two Kan signs, representing maize. Fish are also common in the Mexican manuscripts as part of place names in representations of caves and with the gods.

7c6. Turtle.[83] Along with the lotus and the fish belongs the turtle. In the Aztec list of days, the 19th is *quiauitl*, rain. Seler (3:418) publishes a list of Nahuatl day names in a Nahuatl dialect spoken in Guatemala. *Ayutl*, turtle, is given as the day corresponding to *quiauitl*. This, in turn, corresponds to Cauac in the Maya names. We find the turtle and the frog in a shower of rain in Madrid 17.[84]

As with the other animals, we are not so much concerned with their symbolism as with their representations and occurrence.

Classic stage. This reptile, along with the jaguar, goes back to late Classic times. Altar C at Copan is a tortoise or turtle; it stands before a stela, dated about 782. The so-called "Great Turtle Altar" at Quirigua is incorrectly named, as Spinden points out. It is a composite animal, a "two-headed dragon."

Uxmal. The House of the Turtles is apparently one of the older buildings. Forming part of the cornice are 15 small figures of turtles along the main façade. Pijoan (1946, p. 503) shows two turtles from this site. One may have come from the cornice just described but the other is very different–the shell forms the body of a "turtle man" with feet added below, and head and arms are missing.

Chichen. In the façade of the Iglesia are two niches (fig. 266), each with two figures in high relief. The pair on the right consists of a figure with a turtle body and a figure wearing a necklace with the shell pendant. There is little doubt but what these figures, together with a "shell man" in the other niche, were added in the Mexican period and are bacabs, as pointed out elsewhere.

The turtle as one of these rain gods appears as an atlantean figure, one of the minor designs on the columns of the Castillo and other temples at this site.

In the Lower Temple of the Jaguars the turtle shell appears behind the main figure at the end of the south wall (fig. 614) and on the mask at the base of the four sides of the two columns (fig. 345). On the south column the turtle is connected with the main figure.

A pottery turtle found in the Caracol is described in another place.

The major figures on the pilasters of the Temple of the Warriors and its Colonnade are bearded Maya atlanteans who wear the neck pendant. The one on the left seems to be associated with a shell, the middle one with the carapace of a turtle (fig. 181), indicating that they perform the same services as do the small bacabs in the minor positions on the columns.

On a limestone ledge about 200 m. from the High Priest's Grave there is the figure of a turtle in relief. Another is reported between Strs. 2C10 and 2B5.

In the Northeast Colonnade a turtle is shown at the base of Column 3S at the feet of a donor.

The Temple of the Turtle (Str. 5B2) is a double-porticoed structure. In the debris, probably part of a cornice, were several vase-shaped stones and a single turtle figure (Ruppert, 1952, figs. 65*b,c;* 141,*b*).

In Str. 5C15 a snail and a turtle in stone are reported.

Several gold bells in the shape of turtles and in the Veraguas style of Panama came from the Cenote.

On a "mirror" found at Uayma, Yucatan, there is the figure of a bearded man who seems to be wearing a turtle shell on his back.

Mayapan. [The turtle is commonly represented here in small sculptures associated with shrines and in pottery. It is often represented with the head of a god in its beak, in one case identified with God D of the codices.—T. P.]

Veracruz. A type of *hacha* associated with this region was found at Palenque. A turtle forms the front of a human head (Ruz, 1952).

Aztec. An excellent stone turtle with a human head wearing a nose bead, together with two hands coming from under the shell, is illustrated by Noguera (1946b, pl. 67). This bears the date 5 Flower. Another but cruder one has lately been found in Mexico City (Moedano, 1951, fig. 5).

Oaxaca. A collar of gold turtles with typical dangles is in the Museum of the American Indian (Pijoan, 1946, p. 222).

Codices. The Madrid manuscript shows a turtle in the rain (13a), death sitting on a reptile (70b), in connection with two sun signs (71a), and with leeches attached to it (72b). In the Paris (23–24a) the turtle is one of six animals, each connected with day and night below a constellation band. A necklace of gold turtles to each of which bells are attached is shown in the Codex Kingsborough (pl. 216).

In Nuttall 11 "8 Serpent" is in the shell of "the jewel turtle." In 12 this same reptile is entering the other world; in 43 it is the name of a place which has been conquered. In the Mendoza 49 the underside of the animal represents the town of Ayotlan. In the Magliabecchiano 72 a native is singing, shaking a rattle with one hand, and beating the under shell of a turtle with the other.

7c7. Shells. In the life of the ancient people of Middle America shells had a long history, a wide distribution, and varied uses.

Varieties. The most common shell represented in the *Fasciolaria gigantea,* one of the largest known American shells and found on the west coast of the Gulf of Mexico. The Mollusca are not always, although usually, associated with water. A univalve, *Oliva,* is oval and pointed at both ends. Other Mollusca are less frequent.[85]

Symbolism. The conch was associated with water and with the underworld, and thus with "the great mother, the moon-goddess, who was also a deity of procreation, the earth and water." It was worn by Tepeyollotl, Xolotl, and several other gods. The emblem is commonly shown in representations of Quetzalcoatl. Among the Maya it is associated with the bacabs; in the hieroglyphic writing it means "completion" and "zero" (Thomson, 1950, p. 133; see also his glossary and index).

Use. Shells were employed in the economic life of the people for money and especially for the payment of tribute. As ornament, they were worn as necklaces and as pendants. They were used as fringe for garments and decorated borders; they featured in mosaic work.

Shells were used as trumpets and as containers for jade and other objects in votive caches (Boekelman, 1935a, pp. 262–66, quoted by Thompson).

Classic stage. One of the earliest representations of a shell is on an engraved skull of a peccary from Copan (fig. 171), now in the Peabody Museum. It has a Period Ending date which seems to read 9.7.8.0.0 (581). Near the bottom is a death god carrying a bundle on his back and blowing a conch-shell trumpet.

An old earth god coming from a shell, symbolic of the underworld, or carrying a shell on his back is a common design. This deity is identified by Thompson as representing the number 5. He is often associated with vegetation, maize, and water lilies. Figure 170,*h,* from the Temple of the Foliated Cross at Palenque, shows a god emerging from a shell in connection with a maize plant. The old bearded god (fig. 172) with a shell on his back is depicted on a Chama vase, with a long-beaked bird eating from his headdress. In figure 170,*b* the god comes from the shell. In a similar design (fig. 173) on a painted vase in the Bliss Collection the god seems to be carrying a string of coral beads.[86]

One of the most complicated designs involving shells is that painted on a bowl from Salvador (fig. 174). It shows a serpent whose head is leaving the shell while his tail has not yet entered it. There is a very intricate design on a late Classic tripod bowl from Nebaj (A. L. Smith and Kidder, 1951, fig. 82,*c*).

Chichen. Some of the minor atlantean figures relating to bacabs and appearing on columns and pilasters of structures in Chichen II and III in connection with a shell (figs. 262, 263) will be taken up under sky gods (Chapter III-7G).

A Maya atlantean on one of the jambs of the Northwest Colonnade carries a shell on his back and wears one on his necklace (fig. 175).

Highly conventionalized representations of shells form part of the border decoration on three gilded copper disks from the Sacred Cenote. They are usually associated with the rays of the sun. The center of two disks is occupied by the head of an eagle. The day 2 Ahau, one of the very few decipherable glyphs on any of the Cenote plaques, is seen on the first disk (fig. 276). It is the same day sign that appears seven times on the Santa Rita frescoes, where most of the few other glyphs are undecipherable. On the second disk the eagle's head is surrounded by a design of lattice and guilloche (fig. 438). It has only two rays of the sun with some designs differing from the shells in the other two plaques. On the third disk (Lothrop, 1952, fig. 60) the center contains a bearded god with an elaborate headdress, part of which seems to be an eagle. The ear decoration is the head of a serpent. Ten shells and the four rays are on the border. The days 10 Lamat and 11 Muluc take the place of 2 Ahau on the first disk.

On two of the smaller gold disks from the Cenote (N and O) the head and an arm of a god emerge from a shell. One (fig. 176) is clearly the old earth god with an animal headdress.

Shells seem to be sewed to a skirt on a Toltec figure on Column 1W in the Temple of the Chac Mool. This is, of course, a very common form of decoration in Classic times.

On one of the carved jade beads (fig. 124) from the Cenote a serpent issues from a shell to meet a bearded Toltec emerging from a reptile. This immediately suggests the two serpents, each with a human head in his mouth, meeting on the frieze of the dais of the Northwest Colonnade.

Codices. In Paris 6 (fig. 170,*a*) God B with a shell is carrying the head of a monster; in Dresden 41b (fig. 170,*c*) the old god comes from a shell; in 37b God B is sitting on the water, holding a serpent in his hand (fig. 170,*d*); below, a figure issues from a shell, "a symbol of birth." [87]

In the Nuttall 75 (fig. 170,*f*) sound apparently comes from a conch shell, as if it was being used as a trumpet. In Borgia 8 (fig. 170,*g*) a god emerges from a shell. In Borgia 24 (fig. 177) a god is blowing a trumpet and beating a drum. In Nuttall 50 (fig. 178) 8 Deer, with his jaguar claw and headdress, has a shell at the back of his neck.

Oyoualli or shell pectoral. This is the name given by the Aztec to a shell rattle worn by their dance gods (fig. 179). This perforated oval pectoral has a wide distribution in both time and space.

Classic stage. Specimens have been found at Kaminaljuyu, Uaxactun, and Holmul in Guatemala, and at Teotihuacan.[88] One of slightly different form is pictured by Proskouriakoff (1950, fig. 22,*f*) from Stela 21, Naranjo.

Chichen. A gold *oyoualli* with two holes for suspension (fig. 180) was recovered from the Cenote. Lothrop calls it a "horse collar" and suggests that it may date from the Classic period. This seems doubtful, for the ornament figures in many places at this site during Chichen II–III.

At the end of the south wall of the Lower Temple of the Jaguars the main bas-relief shows a Maya wearing the shell pectoral, pointed at one end but lacking a perforation (fig. 614).

On the Iglesia are two niches (fig. 266) each holding two seated figures in high relief. One of the figures seems to have a shell on its back. This is a Yucatan-Maya building, but at least part of the façade seems to have been rebuilt. It may be that these figures, Toltec in origin, were placed there on this later occasion (Spinden, 1913, p. 204).

The most common appearance of the necklace with this pendant is on the Maya bacabs (fig. 263), the minor atlanteans, some of which we have just noted carrying a shell on their back. These figures are on columns and pilasters of the Castillo, the Temples of the Big and the Little Tables, the Temple of the Chac Mool, and the serpent columns of the Temple of the Warriors. The major figures on the pilasters and jambs of the Warriors and its Colonnade wear the neck ornament (fig. 181). Another bearded Maya, shown as one of the prisoners in the Northwest Colonnade, also wears it (fig. 692).

British Honduras. At Santa Rita one of the figures on the fresco wears the shell necklace (Gann, 1900, XXIX, 3).

Codices. In Dresden 48b an animal-headed warrior with an *atlatl* wears this necklace. It also appears in Dresden 49c, the Venus almanac, and Madrid 33b and 34a (the last two are black personages). Several figures in the Paris manuscript (2–4, 6, 8, 9) wear the pectoral.

In Borgia 64 and Vaticanus B 52 a dance god wears a shell ornament. This design is noted also in Borgia 59 and 62 and in Borbonicus 4 and 16; as well as on a *manta* in the list and pictures given by Sahagun in the Florentine manuscript. In Magliabecchiano 60 a god with a staff composed of a human heart wears a necklace with the ornament; in Magliabecchiano 8 it appears as a design on a *manta* (fig. 182).

Models of various shells are seen as some of the ornamentation of the assembled *braseros* found in the late periods of the Teotihuacan culture.

Emblem of Quetzalcoatl. The spiral section of a conch shell (*ecailacatzcozcatl,* "the spiral twisted wind jewel") or the "cloud scroll" is a common insigne of Quetzalcoatl as the wind god. It is seen as a breast ornament, on his shield, or with other insignia. This is naturally found on Toltec.

Chichen. On the panel of the bench of the Great Ball Court (fig. 474) we see the emblem worn as a breast ornament by five of the seven Toltec figures who are behind the sacrificed victim. In two of these cases the shell is enclosed in a star-shaped figure suspended by beads around the neck. In one instance beads hang from the shell. Among many places where this design is worn is as a breast ornament on Column 40E in the Northwest Colonnade and as a belt decoration by a figure of death on the next pillar (fig. 183).

In the discussion of the fret we have seen it along the body of a serpent on Disk N from the Cenote.

Other places in Maya area. Portions of a clay ornament found by A. L. Smith at Pantzac, El Quiche (Kidder, 1950, p. 47), were undoubtedly part of the representation of a shell in cross-section and similar to some published by Peñafiel (1900, pls. 44–46). At Roatan, Bay Islands, Honduras, is a shell carved as a star (Strong, 1935, pl. 15). Both this specimen, found with copper bells, and the Pantzac one, associated with Tohil Plumbate, are assignable to the post-Classic period.

At Baking Pot, British Honduras, another shell section was found (Ricketson, 1929, pl. 16,*c*).

Mayapan. [This emblem occurs on a figure censer (*brasero*).—T. P.]

Tula. The roof ornaments are rounded frets which, quite definitely, depict a section of a shell. It is also seen on a sandal of one of the large atlanteans here (fig. 118).

Xochicalco. It has been noted here in connection with the serpents on the foundation of the temple.

Veracruz: Huasteca. Ekholm (1944, figs. 22, 52) pictures two cut shells (*Strombus gallus*) from Las Flores, and a bowl with a painted shell in the bottom from the Huasteca. A shell was carved on a *palma* from Veracruz.

Each of the two Huilocintla stelae has the figure of a god wearing the Quetzalcoatl emblem (Seler, 3:517–18).

At Cerro Montoso this figure was noted on a bowl (Strebel, 1885–89, pl. 9). A figure of Fine Orange ware from Sacrificios has the shell emblem on his breast (Du Solier, 1943, p. 78,*g*).

Oaxaca. From Autlan, Jalisco, the entire bottom of a vessel is covered by a shell (Marquina, 1951, p. 274).

On the Piedra Pintada at Ixtaltepec, eastern Oaxaca, the star-shell is at the top of one of the incised figures (C. Seler, 1900, p. 101).

Valley of Mexico. Clay models of shells and sections of shells are common as part of the assembled *braseros* found around Atzcapotzalco and dated in Teotihuacan V.

Codices. The emblem is common on figures of Quetzalcoatl and of Eecatl in the manuscripts (figs. 234, 235). In the collection of designs in Magliabecchiano 3 the shell is the ornament of the Tezcatlipoca *manta.* A double shell is seen on a textile design in the Tribute Rolls (Peñafiel, 1890, vol. 2, pl. 239).

7D. Trees and Plants

Early and other accounts. Perhaps in point of time among the first of the early records, we read in the Chumayel (p. 102), "The first tree of the world was rooted fast." In a *relación* there is a reference to "the green tree of the world." This tree figures in the future life as described by Landa (1941, p. 131):

> The delights which they said they were to obtain, if they were good, were to go to a delightful place, where nothing would give them pain and where they would have an abundance of foods and drinks of great sweetness, and a tree which they call *yaxche,* very cool and giving great shade, which is the ceiba, under the branches and the shadow of which they would rest and forever cease from labor.

Avendaño (Means, 1917, p. 135; Roys, 1933, p. 102; Tozzer, 1941, p. 131) in his *entrada* of 1695–96 writes:

> We continued our way to Peten Itza, which is . . . in the middle of the said lake. . . . On the shore . . . is situated the house of the said petty King . . . in the middle of which, open to the street, stands the fragment of a column, of round stone. . . . The said column is called, in the name by which they worship it, *Yax cheel cab,* which means in their language, "the first tree in the world."

Tozzer (1907, p. 154) writes:

> The *ceiba tree (Bombax ceiba)* plays a great part in the mythology of the Mayas. One was supposed to have grown in Valladolid (Yucatan). It was cut down, but it grew again and had four branches. . . . A hawk lived in the topmost branch, the spirit of the tree. . . . According to one idea, a giant ceiba (*yax-che*), growing in the exact center of the earth, rears its branches through the successive holes in the heavens until it reaches the seventh where *El Gran Dios* of the Spaniards live. It is by means of this tree that the dead spirits ascend from one world to another until they reach the topmost one, where they finally remain.[89]

Classic stage. There are three examples of the bird or "serpent bird" perching in an elaborate tree on structures at Palenque: the inner tablet of the Temples of the Cross and of the Foliated Cross, and on top of the cover of the newly discovered interior tomb of the Temple of the Inscriptions. Four trees usually depict the idea, one for each of the four cardinal points, so a fourth tree may come to light at Palenque. Possibly the tablet in the Temple of the Sun constitutes the fourth example.[90]

In the two Temples of the Cross there is a human figure on either side; in both these bas-reliefs the cross rests on the head of a monster. In one case, at least, this creature represents death. A mask is also at the bottom of the composition on the Palenque tomb.

Chichen. Landscapes are very seldom shown either in bas-relief or in fresco at Chichen, or anywhere else in this culture. Perhaps the nearest to this is on the fresco at the Temple of the Jaguars where there are several stylistic trees with a native and his house at one side. In the forest are a jaguar and a serpent; another jaguar is climbing a tree where a serpent and a bird are resting in the foliage (Maudslay, 1889–1902, pl. 40).

In the neighboring North Temple a tree stands beside a body of water with birds flying about (Marquina, 1951, p. 867).

On the frescoes of the Temple of the Warriors are a few stylistic trees. The best scene of them in any number is the peaceful village (fig. 62). A vine with flowers is carved on the sides of the four jambs of this structure.

The most successful trees from an artistic standpoint are the two on the balustrades of the main stairway of the North Temple (fig. 184). Around the trunk winds a vine with buds and blossoms; bees and birds flit in the foliage; two birds rest on top of the tree. Partly covered by the roots is the head of a monster, rather like that of the first of the Aztec days, Cipactli, a crocodile or water monster, symbol of the interior of the earth. In the Lower Temple of the Jaguars is a Toltec in his usual costume (fig. 185) at whose feet lies a monster almost identical with that under the tree. In the Vaticanus B, Cipactli is at the base of two of the four trees.

Above both trees on the balustrades of the North Temple is a Jaguar-Serpent-Bird (fig. 184). This monster is usually at the bottom of a column.

There is also a tree with its roots on each balustrade of the two other stairways directly east and west of the temple proper. On these stairs, with one exception, a mask tops each balustrade. There are two other trees on each of the two columns of this temple. There are roots and a monster, as in the other trees, but the tree looks rather like an espalier type with flowers and buds on a trellis (Breton, 1917, p. 189). Alternating with the trees on both columns are two Maya figures. A vertical tortuous serpent seems to appear between the figure and the tree. At the top is a guilloche of vine and fruit; below are two supine figures (fig. 678) with spotted skirts.

Before the six trees were reported on the balustrades, it seemed as if the four trees on the columns of this structure and also those on the Temple of the Wall Panels might represent the "Trees of the Four Directions" in the Mexican manuscripts.[91]

In addition to many plant and flower forms, most of which often involve fish, the lotus, and trees, there are other examples of vines and flowers in several structures at Chichen. The so-called Castillo of Old Chichen (Str. 5B18) has on its jambs and two columns practically nothing else but floral designs with birds (fig. 186). The pillars and jambs of the central chamber of Str. 3D7 have plant motifs. Vines appear on the front of the two columns of the Temple of the Owls (Str. 5C7). On their sides and on the pilasters are owls and laced medallions. A simple vine with blossoms runs up and down the side of the four

pilasters of the Temple of the Warriors and the Temple of the Little Tables.

Vines are also mentioned in connection with the water lily.

Other places. On Stela 5 at Izapa in southeast Chiapas (Stirling, 1943, p. 65, pl. 52) is a tree with eight branches. On each side are a main figure, a group of three smaller human beings, and a two-headed serpent. Framing the design at the top are two panels representing the "jaguar-mask panel" (this and the main figure at either side recall the setting of other trees). The roots of the tree are in a river, suggestive of the Burgoa account given in Note 91. A fish, a pelican and other birds, and more trees complete the picture.

A tree with fruit is on the Xochicalco bas-relief and on the side of the statue "La Malinche" from a neighboring hill (Seler, 2: 151, 155). On the side of a stone box from Chalco is an excellent tree, showing roots, flowers, and perching bird (Seler, 2: 161).

Codices. The "Trees of the Four Directions" or the four quarters of the heavens are seen in Vaticanus B 17–18, Borgia 49–52, and the Fejervary-Mayer 1 (fig. 375). At the top of each tree, except the one for South in the Vaticanus, perches a bird. The trees for East and West in the Vaticanus seem to grow from the day sign Cipactli. In the Fejervary-Mayer this day sign is one of two under the quarter belonging to East (Seler, 1901–02, elucidates these pages). The pictures in Vienna 37 and Selden (3135) are very similar to one another. In each there is a figure on either side. In Nuttall 44 there is a tree with a sun glyph in the branches.

Four trees are rather obscurely shown in Dresden 30 and 31. On top of each tree God B is sitting and, in three cases, he carries an axe. In the glyph group above each figure is a sign corresponding to a cardinal point. This set of four trees probably belongs with those of the four directions, already described. On Dresden 69 God B, with his axe, is seated on a tree (fig. 379).

In Madrid 75–76, corresponding to the one noted above in the Fejervary-Mayer, there is a single formalized tree in the center with two figures seated underneath. In Dresden 3 there is a kind of tree with a vulture at the top, growing out of the body of a woman.

7E. Human Beings [92]

7E1. Crossed arms. It is difficult to understand the significance, if any, of the representations of a person with his arms crossed on his chest. The figure with one arm on the shoulder or both arms folded has usually been interpreted as showing surrender or resignation. With some exceptions, the crossed arms seem to be mainly associated with the later periods of Middle American archæology.

Costa Rica. Large stone figures of this kind seem to be common in the southwest and northeast sections of this country. The same position of the arms is shown on the Nicoya jades.

Chichen. At the base of the two columns in the Temple of the Owls (Str. 5C7) are the head and torso of a figure with folded arms (Ruppert, 1952, fig. 146,*a*). Another in the same position was associated with Str. 5C3.

Uxmal. There is a seated figure with crossed arms, tied at the wrist (Seler, 1917, p. 60).

Guatemala. In the Cotzumalhuapa region this position is especially common. On Monument 7 at Santa Lucia a figure with crossed arms (fig. 134) is in the jaws of a monster and appears as if coming from the heavens. Sculptures 5 and 25 from El Baul, a stone at El Castillo, and Sculpture 28 at Cotzumalhuapa show the arms crossed at the breast (Thompson, 1948, figs. 4, 8, 16).

At Quen Santo, near Chacula, Seler (1901, p. 123) gives two stone figures in the same position.

Palenque. Ruz (1952a) has a figurine with crossed arms from this site. One was also found at Tonina, Chiapas (Blom and La Farge, 1926–27, p. 269).

Tula. There are at least two personages with crossed arms here. The first (fig. 187) has a year sign on his head and has been published in many places. The other is a crudely carved heavy statue which has lost its head. The arms are characteristically crossed over an upper garment which ends over a wide belt in a point at both front and back.

Teotihuacan. In a collection said to have come from "a place not far from the ruins," Seler (5:574) shows, among other things, a Plumbate vessel of a seated figure with crossed arms. All this collection is obviously dated from post-Teotihuacan days.

Veracruz. At Cerro de las Mesas is a small nude figure (Drucker, 1943, pl. 9,*b*) with crossed arms found in a cache with jade objects. In Jalapa a stone shows a man with crossed arms carrying an animal on his back. At Tutupec, in the Ayuntamiento, is a stone figure in the same position (Berlin, 1947).

Oaxaca, etc. In Führman (1923, vol. 3, pl. 77) there are two urns of seated figures, each with crossed arms and with the upper garment ending in a point below the arms.

Caso and Bernal (1952, pp. 120–39) show among the *acompañantes* about eight male and female figures with crossed arms. Apart from the position of their arms, all are of minor importance. Two with a serpent mask (pp. 156–57), one with a bird's beak (p. 206), two of the God 5 Turquoise (p. 242), and five of the 13 Serpent (p. 286–90) show the same position of the arms.

C. Seler (1900, pl. 8) publishes a stone from Etla, Oaxaca, with two figures with crossed arms.

On the west coast of Mexico figures of this type are found in Guerrero and Colima (Médioni and Pinto, 1941, pp. 26, 135, 214).

7E2. Women. Women are rarely shown. Skirted women with bare breasts are found in the codices, but the skirt *per se* does not seem to indicate a female. The skirted donor seems, in almost every case, to be a man.

Chichen. On the fresco both in the Temple of the Jaguars (fig. 61) and in the Temple of the Warriors (fig. 62) women are fully clothed. On the north bench in the Warriors (Morris, 1931, pl. 137) a semi-nude sorceress with a jar at her back is similar, in some respects, to a woman carrying an olla (fig. 579). This is the only time a definitely female figure appears as the main personage on a column. Again on the Warriors fresco, there may be a woman with a skirt (Morris, 1931, pl. 157,*d*). A nude man and woman, evidently sacrificed, occur in connection with the head of a death god (*ibid.*, pl. 144,*a*).

The skirted figure is also found in the minor designs at the top and bottom of columns in the Temple of the Big Tables. Of the 28 such figures shown by Seler (5:296–301) six are skirted and represent women, according to him.[93]

Mayapan. Proskouriakoff (1950, p. 105) shows three crude figures carved in the round, one of whom seems to be a woman. [A female idol was found in the stairway shrine of a round building, Str. Q-214.—T. P.]

Mexico. Female gods are fairly common, especially the goddess of death. Figures of women are frequent in the Tarascan area.

Codices. Women are employed in various occupations, religious and secular: presentation of offerings, baptism of children, and functions associated with rain (Dresden 74, Madrid 30 and 32b). One woman is shown cutting the ear as a blood offering; two are sacrificed. Many appear with men and animals in cohabitation. Some seem to be pregnant, seated before a god (Madrid 94b). Many wear birds and animals as headdresses, possibly with totemic significance. Weaving by women is pictured. Women are seen in most of the Mexican manuscripts.

7E3. Nudity. Phallic worship, lewdness, and nudity are often closely associated but they do not necessarily belong together. Nudity can be present without phallic worship and lewdness; phallic worship does not by any means connote obscenity. The Maya are singularly free from much manifestation of any of these characteristics. Nudity is extremely uncommon in the entire Maya area. There are a few examples in the later periods.

Chichen. In the Mercado the three main figures on each of the two pilasters at the doorway leading from the gallery to the patio are practically nude. One has an *atlatl* and padded arm (fig. 188). They have elaborate headdresses; most of them carry Toltec weapons. Three have their faces in the jaws of serpents, the body of the reptile hanging down at the back of the figure. The significance of the nudity is difficult to make out.

This feature is easier to understand on the figures of prisoners on one of the Temple of the Warriors frescoes (Morris, 1931, pl. 139). Here the nude Maya are being led away by Mexican troops. On the same structure the victim being sacrificed (*ibid.*, pl. 145) is probably nude [94] as are the man and woman already mentioned (*ibid.*, pl. 144) who seem to have suffered the same fate. A man swimming away in the water is also unclothed (*ibid.*, pl. 146).

Two nudes are among the small atlanteans, one in the Southeast Colonnade and the other in the Temple of the Little Heads, which has two atlantean columns to be described presently.

Uxmal. As part of the façade decoration on the Monjas are two nude figures in the round which have lost their heads (Seler, 1917, p. 47).

Other sites. Noted examples of nudity are the Dansantes of Monte Alban who belong in an early period here. There are a few stone figures, especially in the Huasteca, who are represented as undressed. In the Tarascan area nudes of both sexes are common.

Southern Central America. In Costa Rica and Panama, Lothrop informs me, practically all the numerous nude figurines are male; the nude pottery figures are females. In Costa Rica are many stone figures of both sexes who wear no clothes.

7E4. Phallic worship. Maya sculpture and Maya codices fail to show any evidence of a widespread phallic cult.

Yucatan-Maya. Among other places, stone phalli have been found at Uxmal, Labna, Chacmultun, Kabah, Xkichmook, and Xul. Most of these were disassociated with any definite buildings.

Chichen. The House of the Phalli (fig. 8), a building which is certainly contemporaneous with the period of Yucatan-Maya, has a series of six rooms, in five of which a phallus projects from the center of each end wall in unsymmetrical arrangement. There is some reason to believe that they may have been added after the main structure was erected, contemporaneous with additions made in Toltec times.

In Str. 6E6, a single-room building, a stone phallus was set up near the center of the floor.

On the bas-relief of the vault in the North Temple of the Ball Court, there is a possible phallus in connection with a worshipful Toltec (Marquina, 1951, photo. 440A).

The Santa Rita, British Honduras, phallic examples probably belong here (Gann, 1918), as do those from shell heaps at Puerto Castillo, Honduras (Boekelmann, 1935).

7E5. Lewdness. Unlike the situation in Peruvian archæology, representation of eroticism in Middle America is singularly absent. These people are one of the few great civilizations which is extraordinarily free from such practices, so far as can be made out, although Wallace (1950) and a few other writers have made futile attempts to prove the contrary.

Toward the end of the history of the Maya, lewdness appeared as the result of incursions of foreigners, possibly the Toltec or, more probably, the Itza who had, perhaps, picked up ideas in Veracruz, apparently a center for mild forms of obscene practices.

In the history of Chichen, as given in the Chumayel prophecies, the introduction of eroticism is ascribed to the Itza who, it is postulated, came in Chichen III. This, along with the part played by the *Plumeria* in connection with a love charm, has been discussed.

Chichen. In the center of the single-room Temple of the Little Heads (Str. 5C3) are two tall atlantean figures which help to support the vaults. Each has his breechcloth pushed or pulled aside, revealing the genitals (Ruppert, 1952, fig. 145*a*).

There are references in the Tizimin and Mani prophecies given by Roys (1949, pp. 168–69) which would seem to refer to this situation. Under 6 Ix we read: "Then would be the removal of the breechcloths, the removal of the mantles. . . . He went to spread apart the loosened breechcloth of the great rascal, to sell it on earth. . . . At that time there are heaped dry leaves over you. You have no breechcloths, no mantles, nothing is there belonging to your representative, your temporary home."

Three other temples at Chichen have tall atlanteans which conform to the proprieties.

Other Yucatan examples. Probably dating from Chichen IV are several sites with monuments on which the genitals are exaggerated, possibly expressing obscenity: Nisucte (Le Plongeon, 1889, p. 13), Telantunich in Quintana Roo, and Pustunich and Cumpich in Campeche (Andrews, 1939, 1940, 1941b, 1943; Ruz, 1945).

The lowest figures on Stela 14 at Uxmal (fig. 604) and Stela 9 at Sayil (Proskouriakoff, 1950, fig. 90,*d*) should be mentioned here.

Veracruz. There is considerable evidence, as already suggested, that eroticism was common in this region. Thompson (1941a) writes, "The evidence indicates that phallicism was most strongly developed in Veracruz, was perhaps carried to Yucatan by the Itza during the Mexican period (A.D. 1100–1450) when they were dominant, and was a feature of the Pipil culture on the Pacific slope." [95]

7E6. Death. It has often been remarked that death and the ideas surrounding it are not especially prominent in Maya art

in Classic times. The death god, however, is especially in evidence in the Toltec period in Mexico, reaching its highest development among the Aztec. In the Maya area, especially at Chichen, in the Mexican periods its representations were many.

Maya ideas of death. The position of the Maya of his time in regard to the end of life is expressed by Landa (1941, p. 129): "This people had a great and excessive fear of death, and they showed this by the fact that all the services, which they performed for their gods, were for no other end nor for any other purpose than that they should give them health and life and sustenance." [96]

Representations. Death is shown in several ways and by several gods in the stone carvings and in the codices. Among the Maya, the god is masculine; among the Aztec, there is a male and a female deity. The most famous idol of a female goddess of death is the colossal and barbaric one representing Coatlicue in the National Museum. She is shown with several attributes of death: human hearts, severed hands, death's-heads, and serpents.

Spinden shows representations of long bones and death gods, mostly from the Classic period (fig. 189). One side of Altar R from Copan is shown in *c*. Below each of the ear ornaments of the god is a lotus flower, also the symbol of death. The typical way of representing the ends of the long bones appears several times, including part of the ear ornaments of two faces (*g*,*k*), both from Palenque. Crossbones appear on a trumpet and rattle used by a figure on a Bonampak fresco (fig. 190).

God A (fig. 191), from the codices, is the Maya god of death.

Day signs. The sixth of the 20 Maya days is Cimi; among the Aztec the corresponding day is Miquiztl. Both mean death, and in both cases the sign is often a picture of death.

It is unusual in Maya for the sign of the day to represent the meaning of the name. The common glyph indicating death in the codices is a face with a closed eye (fig. 193,*a*); *b* is the so-called "maggot" sign for this day, also meaning death; [97] *c* is a glyph from Quirigua, Stela F, with a bone on the lower jaw and the "maggot" sign on the cheek; *d* is from Copan, Stela I, and shows a skull.

The Magliabecchiano (fig. 192) shows a realistic sign for Miquiztl (death) among the Aztec.

In the *tonalpohualli*, or almanac of good and bad days, the sign for death plays a very important part in prognostication. It is, naturally, an omen of misfortune.

Chichen. In the Lower Temple of the Jaguars are two excellent human figures with heads of skulls, both of which probably show Maya warriors (figs. 613, 650). Emblems of death appear on the clothing. The name sign on the second figure seems to show a dead child. A Maya figure (fig. 194) has his body in the open jaw of a serpent whose vertebrae are exposed. Crossbones on the tunic and bones are part of the "name."

On the north column in this temple are Maya figures whose skirts are decorated with lines of crossed bones (fig. 195). Another (fig. 196) wears a spotted skirt with a line of crossed bones. His head is a skull. Both of these are atlanteans. A border of crossbones is on the garments of two recumbent figures on the east pillar of the North Temple of the Ball Court (Breton, 1917, fig. 2).

A column in the Northwest Colonnade is a typical figure showing death (fig. 197), but here a Toltec is represented.

The lintel of Str. 4B3 has a sculptured panel with a figure wearing a turban-like headdress (fig. 198). He carries a pole bearing a death's-head at the end. It is an unusual representation and in an unusual place.

In the debris of Str. 5C3 is a very beautiful head which may represent death (Ruppert, 1952, fig. 145,*b*).

On the outer pilasters of the Castillo, the figure of death is repeatedly shown, each time in connection with a Toltec. On the breast of a Maya on one face of the south column in Str. 2C3 a death's-head is worn as an ornament. A Toltec is shown as death on the northeast column of the Temple of the Big Tables. An excellent head of death was found in the debris of the Temple of the Little Heads (Ruppert, 1952, fig. 145,*b*).

As we have noted in the Lower Temple of the Jaguars, a structure belonging in Chichen II, death is represented by a figure with a skull as its head. In Chichen III death is sometimes shown the same way but most commonly by the death's-head from whose nasal opening issues a flint point. This appears eight times in the Temple of the Warriors complex (figs. 183, 199), the figure generally wearing the accoutrements of a Toltec. There are also two death's-heads painted on the north basal zone of the façade of the Warriors (fig. 200) and another on the fresco (fig. 201).

Other figures of death. At Keuic in northern Yucatan a stela, probably late (Proskouriakoff, 1950, fig. 90,*c*), represents a skeleton with a depression in the stone in place of a head, "perhaps for the insertion of a real skull."

Among less-known figures of death are those on Plumbate pottery from Salvador (Shepard, 1948, fig. 19,*k*,*l*).

Tula. Up to the present time surprisingly few representations of death have been found here. On an incised stone (fig. 202) is a curious rendering of the subject. The god Tlauizcalpantecutli, represented by death being swallowed by a serpent, is also pictured here.

Veracruz. From the Castillo of Teayo (fig. 203) a curious partial figure of death is noted. Death is a common motif on Totonac yokes, *palmas*, and *hachas*. On the latter a vulture is pecking at a skull. Some of these figures will be mentioned later in connection with the ball game.

Codices. In several of the Mexican manuscripts the death god Mictlantecutli, or his head, appears with a flint in his mouth: Vaticanus B, 30, Fejervary-Mayer (fig. 375), Laud 41, Nuttall 78 (fig. 204), the post-Columbian Magliabecchiano 76, and, with the flint in the mouth, Borbonicus 10.

There is an interesting double picture in two of the Toltec codices, showing Quetzalcoatl, the wind god, and Mictlantecutli, the death god, seated back to back (Borgia 56, 73; Vaticanus B, 75–76). Laud 1 also has a double figure.

The best representations of mummies are in Magliabecchiano 66–69. The dead warrior (fig. 205) is shown with decorations and offerings made to him. Mummies appear in the Maya manuscripts as in Madrid 101–02.

The common design of skulls alternating with crossed bones, as on the *tzompantli*, will be taken up later.

7F. Maya Gods

Classic stage. Surprisingly little is definitely known about the gods depicted in the stone carvings of Classic times. Tlaloc and a god representing death are recognized, but only a few others.

Deities in the codices. A start toward the elucidation of the Maya pantheon was made by Schellhas as early as 1897 in his

treatise *Representations of deities of the Maya manuscripts*. The revised second edition was published in English by the Peabody Museum in 1904. Schellhas designated the gods by letters A to P, the animals by numbers 1 to 6. The better known of these gods are: A, the death god; B, "the long-nosed god"; a rain god or gods corresponding to Tlaloc; D, "the Roman-nosed god"; E, a maize god; G, a sun god; and K, an old-man type akin to B.

There has never been any great trouble in identifying these deities in the codices, as each usually has one or more characteristic glyphs above his picture. But when it comes to classifying the grotesque faces of gods on the stone carvings, there are often difficulties. Spinden (1913, pp. 62–76) has done this to some extent.

A list of Maya gods should include two important ones—Itzamna and Ix Chel—who belong mainly to tradition and to folklore, but only incidentally to this study which is primarily directed toward representations of those Mexican gods who seem to have counterparts in the Maya world.

Itzamna (Kinich Ahau). This god has already been mentioned in connection with the "Descents." Cogolludo's account (4, III) follows: "With those from the west came one who was like their priest, called Zamma (Zamna). It was he, they said, who gave names which today they use in their language for all the seaports, points of land, salt creeks and marshes, coasts and all the places, settlements, forests and all the places of this entire land which is surely a matter of wonder."

This god, thought by some to be the husband of Ix Chel, was a sun and a heaven god. He was considered to have been the first priest and the inventor of the hieroglyphic writing. His associations were with the sky monster, world directions, and colors. There may have been four Itzamnas, connected with the four chacs or bacabs and hence with rain. These will be considered with the sky gods. Itzamna is invoked in the Uayeb and other rites. Gods D, B, K in the Maya codices are connected with him (Tozzer, 1941, p. 306).

Ix Chel (moon goddess). This deity, generally called Ix Chel among the Yucatecan Maya and named Tlazolteotl-Toci or Xochiquetzal in central Mexico, has been exhaustively studied by Thompson (1939; 1950) along with the extensive mythology associated with her both in Central America and in Mexico. This author finds her, in some references, as the wife of the Sun, as the patroness of weaving and of procreation, pregnancy and birth. She is associated with the complex of sex and the *Plumeria*, with the monkey and the spider, and has been identified as an earth and a water goddess. There was an idol to her at Cozumel which will be considered later. In the Maya codices she has been identified as Goddess I. She wears a skirt, has prominent breasts, and has black hair hanging down her back. Tozzer (1941, p. 310) gives an outline of her history and characteristics, and reports her (Tozzer, 1907) among the Lacandon.

"Ix Chel was evidently a very popular deity among the Chontal generally," write Scholes and Roys (1948, p. 57). ". . . the site of Tixchel, which was twice occupied by the Acalan, was apparently named for her. As Seler has pointed out, the names of Ciuatecpan ('palace of the woman') on the Usumacinta and of Ciuatan ('the place of the woman') in central Tabasco must refer to her worship. . . . In Tabasco on the Rio Chico, a branch of the Usumacinta, is a site named Cuyo de las Damas, which may well refer to Ix Chel also."

In the Chontal text (Scholes and Roys, 1948, p. 395) is a reference to "idols hidden in their secret places by the Indians" and among them is one called Ix Chel. In the discussion of the virginity of women sacrificed to the gods there is the reference to a goddess to whom the people of Teutiercas dedicated their principal temple. She is identified as Ix Chel. Landa (1941, p. 9) reports that Cordoba, in 1517, "reached the Isla de (las) Mugeres to which he gave this name on account of the idols representing the goddesses of the country which he found there, such as Ix Chel" and others.

7G. Mexican Gods

The characteristics, functions, and complicated relationships of the gods and goddesses among the people of Middle America are discussed in other publications.[98] We are concerned here with certain deities whose distribution in time and place assign them roughly to three classes. The first is represented by Tlaloc, whose portrayal is singularly alike over much of Middle America. He is found all the way from the Classic Maya area to sites such as Zacualpa, Chajcar, and El Baul, in Guatemala, in Chiapas, Oaxaca, and Veracruz and into the Mexican highlands, from Classic Teotihuacan and the Toltec down to Aztec times. All the Mexican codices of the three types present this god with characteristics usually clearly defined. The second and by far the largest group of deities seem to be Mexican Toltec in origin and extend into Yucatan, especially in Chichen II and III. Quetzalcoatl is the most prominent god in this pantheon. Finally, there is the large number of Aztec deities who do not seem to be important outside Mexico. Xipe is a good example of this type of divinity.

Tlaloc.[99] The gods of rain are usually given the Aztec names; in many cases, their representations are associated with the imbricated year symbol.

The depiction of Tlaloc is very consistent. He seems to be wearing a mask, of which the most conspicuous features are circles around the eyes, sometimes with a serpentine twist forming the nose. Below the nose and above the mouth a moustache-like line ends, at either side, in a curve. In some cases the mouth is encircled as are the eyes. Fang-like teeth are usually present at either side of the mouth.

Classic stage.[100] Two of several of the stone faces of this god from Copan are shown in figure 206.

Yucatan-Maya. Examples from the Puuc are many. One is from Sayil (fig. 207) and two are from Uxmal (figs. 208, 209). Both of the latter show the year symbol: the first has it under the mouth and on both sides of the face; the other has it in three places around the face. The deity on Stela 1 from this site is Tlaloc.

Classic Teotihuacan. In this Mexican period there are many examples of Tlaloc. A highly conventionalized form (fig. 210), showing the pointed teeth, is often seen in stone. Beyer gives a schematic drawing (fig. 211), combining the formal sign with one of the many clay heads, always with the rings around the eyes. A more common form of head appears in figure 212.

There is a type of clay plaque associated with Teotihuacan which contains the year sign and a representation of the god (Linné, 1941, p. 176). Several Tlalocs appear on the famous molded bowl discovered by Linné (1941, p. 179) at Calpulalpan. It is more probable, however, that these represent Tlalchitonatiuh, who is often mistaken for the rain god.

Chichen. To determine the ethnic position of the Tlalocs of

this site is sometimes difficult. Most of them seem to be Toltec. A very impressive representation is the central figure in the elaborate ceremony in the bas-relief in the Lower Temple of the Jaguars (fig. 213). Here he appears with an elaborate feathered serpent and an altar. He seems to be represented as a ball-player. He wears a beard. His encircled eye is formed by the body of a serpent with the head and tail at the top. The mouth is also encircled. On the breast he has what seems to be a circular disk not unlike many from the Cenote. Another may form part of the headdress.

Three atlantean altar figures show the same rendering of the head of Tlaloc, a serpent encircling each eye and two around the mouth. Of the two illustrated (figs. 214, 215) the first may have a sort of mosaic-headband with beads; the second, the Toltec "bird" sign over a mosaic hat and the same design as a breast ornament. The circular ear ornaments may indicate the sun.

The third Tlaloc of this type (Seler, vol. 5, pl. 21, no. 10) has the rings around the eyes and mouth but not the serpent's body forming the circle.

The most striking Tlaloc mask, from the Cenote, is made in three pieces of gold with a cut-away background (fig. 216). This conforms to the representation of the rain gods just described.[101] There seems little doubt that the serpents with the crests over the eyes represent the god Xiucoatl, to be described later. The design on either side of the mouth is reptilian.

There are two individuals (figs. 217, 643) on the same bas-relief of the Lower Temple of the Jaguars who seem definitely to belong with the Maya group on this wall. Both have the circled eyes and an enclosed mouth. The former has a curious type of nose decoration.

The prisoner in the Northwest Colonnade (fig. 218,*a*) has the same features as those described above. He, also, is probably a Maya. Those who follow carry an *atlatl* or its substitute but belong in the "anomalous" Toltec class.

The face of the figure on the Temple of the Warriors (fig. 218,*b*) has the eyes and mouth of the individuals just described. Also on the Warriors (fig. 218,*c*) the rain god seems definitely to be shown. His face is like that of the badly damaged figure who is holding a blazing incense burner on the façade fresco of the same structure (Charlot, 1931, fig. 289). The figure wearing the bird on his hat (fig. 218,*d*) is a somewhat problematical Toltec. Column 57N of the Northwest Colonnade, definitely a Toltec, has the circled eye but no design around the mouth.

The fresco on the altar panel in the Northwest Colonnade has an interesting Tlaloc carrying in his right hand an undulating staff (fig. 219) which, when found in Mexican codices (fig. 220), is interpreted as lightning carried by the rain god. A crude head of this god was found in the South Annex of the Caracol (Ruppert, 1952, fig. 128,*b*).

Near the Temple of the Four Lintels, a Maya structure, were at least nine stone Tlaloc heads (fig. 221) which served as *incensarios*. Others of the same type were near the Monjas. In both cases, the braziers undoubtedly belonged to much later constructions than those of Chichen I.

Guatemala. Among many other sites in this state, Tajumulco is reported to have a bearded Toltec Tlaloc. At El Baul a stone figure (fig. 222) shows an excellent face of this god. It has a forked tongue, as do others given by Thompson (1948, fig. 12,*f*). Effigy pottery often represents this god (Shepard, 1948; Noguera, 1950; Boggs, 1949).

Tula. On at least three stelae from this site a Tlaloc forms part of the headdress (fig. 552). There is also a small stone figure from a ball court which shows "attributes of a Tlaloc" (fig. 223). The rings about the eyes and mouth are somewhat similar to those of the group found at Chichen. The god seems to be carrying a spear in his right arm and a shield in his left.

Veracruz. Here, especially at Teayo, the god is shown on many large stones (Seler, 3:410–49). At Tajin, Tlaloc appears on two of the tablets (fig. 224).

Valley of Mexico. At Tenochtitlan, Tlaxcala, and many other sites in the vicinity, this deity appears many times. Perhaps the most famous Tlaloc (fig. 225) is on the Plancarte jade vase from the state of Morelos, now in the Mexican National Museum. Other types in pottery are given in figure 226. The god carrying a serpent representing lightning, similar to that on the Chichen fresco, is seen on a stone tablet (fig. 227). An excellent example of a painted clay head of Tlaloc is in the Bliss Collection (cat. no. 112). The Peabody Museum also has one of the same type. The chac mool with the Tlaloc face (fig. 75) and holding a blood bowl has already been noted. There is a temple to Tlaloc at Calixtlahuaca in the state of Mexico.

Guerrero. Excellent representations of the god appear on two stone slabs from the Rio Balsa which are in the Peabody Museum (fig. 228).

Mixtec. In the many small serpentine and other stone figures from this culture, Tlaloc often appears (fig. 229; see also Bliss, cat. no. 35).

Oaxaca area. Here this god is called Cocijo. There is a temple of Tlaloc at Yucundahui (Caso, 1938b, p. 31). Caso and Bernal (1952, pp. 15–53) show many forms of this god. An elaborate urn from Tehuantepec should be included here (fig. 230).

Codices. In the Toltec, Aztec, and Mixtec manuscripts the rain god is a common, easily recognized figure. We have already noted him with a bolt of lightning in his hand (figs. 219, 220). In the latter illustration he also carries some vegetation, showing his natural association with agriculture and rain. He is depicted in the Magliabecchiano (fig. 231) in the rain, coming from the top of a pyramid where a sacrifice has taken place. He is holding lightning and two ears of corn.

Variations in the depiction of Tlaloc are shown in figure 232. In two of these the god wears a beard. The center design on Borgia 27 is given in figure 233. There are figures for the four directions; the one given here is for the middle or above. Each picture has a Tlaloc head, representing a different god as the sun or rain god, Xochipilli in the center with Xiutecutli, Tlauizcalpantecutli, Quetzalcoatl, and Tezcatlipoca, each for a world quarter. The center Tlaloc wears a year sign as part of his head ornament. The same gods are shown in Vaticanus B 69.

Other Tlalocs accompanied by the year symbol will be shown later.

QUETZALCOATL. This enigmatic historical-mythological figure has been discussed in detail in connection with Toltec history. Whether there was a cult of the Feathered Serpent as distinct from a priest-god-ruler named Kukulcan-Quetzalcoatl does not concern us here any more than the question of a multiplicity of Kukulcans. The feathered serpent, represented as a part of the design, has been considered in Chapter III-7c1.

Various symbols are characteristic of this deity. The most consistent in the Aztec depiction are the pointed cap, the curved *atlatl*, and a section of a shell worn as a breast ornament (*ecailacatzcozcatl*) or on his shield (fig. 234). He is identified under various names and attributes. One of these is Eecatl, god of the winds. He appears in a kind of mask with projecting lips. The Borbonicus has an excellent example of this deity, the pointed cap, the lips, and, at the bottom, the section of the shell (fig. 235). The association of Quetzalcoatl with other deities is nowhere better brought out than in three figurines found near Texcoco and now in the Berlin Museum. Here this deity is seated or standing on a pyramidal temple in front of a solar disk and wearing the shell. According to Seler, they represent Quetzalcoatl as Quetzalcoatl, as a sun god (fig. 236), and as Xipe.

Chichen. This god, as such, is singularly lacking at this site. As has been noted, the shell breast-ornament occurs in the scene on the six panels of the bench of the Great Ball Court. On each panel are two groups, one Toltec, one Maya. Many of those on the Mexican side wear on their breasts the shell emblem of Quetzalcoatl, the main criterion of their ethnical position. The feathered serpent itself is a very common feature at Chichen.

Cotzumalhuapa region. At Pantaleon are three tenoned heads and at Cotzumalhuapa one with animal snouts. Thompson (1948, p. 26, fig. 13) considers these as representing Eecatl.

Tula. Here is Quetzalcoatl with his name date 1 Acatl (fig. 116); the serpent on column and façade is represented in much the same way as at Chichen.

Valley of Mexico. One of many places where atlantean Eecatls were found is in the Calle de las Escalerillas (Batres, 1900, p. 19; Seler, vol. 5, pl. 16, no. 2). Another full figure of the god, probably once serving as a standard for a banner, comes from Calixtlahuaca.

Huasteca. Beyer (1933) has identified Quetzalcoatl and other gods on carved shells from graves in this region. So has Du Solier (1946) on a fresco on an altar at Tamuin, San Luis Potosi. Figures from Mixtec codices are also part of the comparison.

Los Sacrificios. A cylindrical vase with annular base shows Quetzalcoatl-Eecatl. The head is modeled and the body painted. He wears the shell as a breast ornament (Du Solier, 1943, p. 76).

Codices. The apotheosis of Quetzalcoatl as Venus has already been mentioned. In the same way, Eecatl may play a similar role. Among many representations of him as a Venus god, we note only those appearing in the Vienna Codex (Vindobonensis) 47 on a date 10 House 2 Rain, and also in the same manuscript where the god 9 Wind (Eecatl), as the Venus god, descends from heaven. In the same manuscript 9 Wind operates a fire drill (Spinden, 1940, fig. 6).

In Magliabecchiano 61 there is an excellent picture of Eecatl wearing the pointed hat, the shell as a breast ornament, and carrying a curved *atlatl*, all typical of Quetzalcoatl.

TLAUIZCALPANTECUTLI. This god is one of the guises of Quetzalcoatl, transformed into the god Venus as a morning star. The name is variously translated as "Lord in the House of the Dawning" or "Lord of the Morning Twilight." Quetzalcoatl and this deity are included in the group of sky bearers, called Tzitzimime.[102] Venus appears as a morning star for 236 days, then disappears in its superior conjunction for 90 days, reappears as an evening star, disappears in its inferior conjunction for eight days and comes again as a morning star to start over the cycle of 584 days (see Dresden Codex 46–50). These disappearances from the sky are represented as death and descent into the underworld. The possible connection with the Dead Warrior and the Jaguar-Eagle cult will be considered in Chapter III-9. Tlauizcalpantecutli or Venus, at the time of its disappearance, is usually represented as a dead person but is sometimes shown as being swallowed by a serpent. It is impossible to determine, however, whether the planet is disappearing in the inferior conjunction of eight days or in the superior conjunction of 90 days.

Chichen. On the frieze of a dais in the Northeast Colonnade, a man is being swallowed by a serpent (fig. 237). He is not, however, represented as dead. Essentially the same figures are seen in the same relative position on three sides of the altar of the Northwest Colonnade (fig. 114), and at least once on the North Colonnade (Morris, 1931, p. 336). The serpents here may represent the god just described.

Tula. The best illustration of the disappearance of Tlauizcalpantecutli (fig. 238) is on a frieze on the Coatepantli, "serpent wall." There is a continuous line of articulated figures of death, each being swallowed by a serpent.

Tizatlan. One of the painted figures on Altar B, east side, has been interpreted by Caso (1927a) as Tlauizcalpantecutli. The figure behind the god is Xiucoatl.

Los Sacrificios. On the annular base of a pear-shaped vase from a burial here, Du Solier (1943, pp. 69, 78) identifies a figure with skull-mask (fig. 606) as probably symbolizing the death of Quetzalcoatl in the guise of the god Tlauizcalpantecutli.

Guerrero. On a flat gold ring from Texmilincan are two serpents along whose bodies run the fret design or "cloud balls." Each reptile is in the act of swallowing what seems to be a Toltec carrying his spearthrower. The idea expressed by the god described above may be indicated here (Lothrop, 1952, p. 10).

Codices. The god appears frequently in the Mexican manuscripts, the Borgia, the Telleriano-Remenisis, and the Aubin, for example. In several places he is seen in the ninth week of the *tonalpohualli*, opposite Xiutecutli, the fire god (Seler, 1900–01, pp. 78–82). He is not represented here, however, as a serpent swallowing a man.

TEZCATLIPOCA. Represented often as an opponent of Quetzalcoatl was the Aztec god Tezcatlipoca, he "of the smoking mirror." He is often shown carrying this smoking or fiery mirror. Sometimes one of his feet is cut off at the ankle; flames, with or without the mirror, issue from the stump.

Chichen. With astuteness, Thompson (1942) recognized five representations of this god in the guise of a Toltec warrior on columns of these related structures at Chichen: the Temple of the Chac Mool, Column 3S (fig. 239); the Temple of the Warriors, Columns 1W and 15W (fig. 240); and the Northwest Colonnade, Columns 31S and 49N (fig. 241). All five figures show amputation of one foot; four show flames or smoke issuing from the stump. In the headdress, four show the mirror and three the flames. Three of the faces are colored yellow and they represent Toltec. It should be noted that the figures of this god at Chichen are confined to structures of Group B.

Tizatlan. The god is recognized on the front of Altar A (Noguera, 1927, pl. 1).

Tenochtitlan. The famous stone found in 1791 in Mexico City shows in a band, running around the side, the Aztec ruler Tizoc (1481–86) in the role of Tezcatlipoca (fig. 242). Each figure of the god wears a pectoral not greatly different from that associated with the Chichen and Tula Toltec. He appears 15 times, holding a prisoner by the hair (fig. 352). Each captive represents a conquest in the reign of Tizoc, the name of the town or region being indicated by a place name. The god is

shown in the same way on the design carved on the rock at Tepetzinco or Peñol de los Baños (Seler, 2:804).

Codices. In Borgia, Vaticanus B and Aubin, for example, in the third week of the *tonalpohualli,* Tepeyollotl, in the guise of a jaguar and as the representative of Tezcatlipoca, sits opposite Quetzalcoatl. Tepeyollotl is the eighth of the nine gods of the interior of the earth. In Borgia 21, among other places, Tezcatlipoca appears in his usual guise.

TLALCHITONATIUH. This is one of the manifestations of the sun god Tonatiuh. The "sun near the earth" and "the sun which goes downward to the (region) of the dead" are explanations of the name. There seems to be a close association between him and Tlaloc.

Chichen. On the outer walls of the Temple of the Warriors are three bands of bas-relief (fig. 431), directly concerned with the Jaguar-Eagle cult. The human figure, with jaguars, eagles, and possibly coyotes, is a half-reclining warrior with Tlaloc circles around the eyes and a nose bead. He carries a staff, spear, or club decorated at both ends.[103] Thompson (1943a), who identified this god, points out what may be the ends of a wig coming from most of the figures. One such covering seems to be shown with beads.

On the Temple of the Jaguars fresco, one of the two large-scale figures (Seler, 5:352) opposite the one which it has been suggested may be a ball-player, wears what seems to be a wig; beads are strung on some of the strands falling on his back.[104]

The same reclining figure with Tlaloc eyes, a long rod-shaped earplug, and the club appears on Mausoleum I (fig. 243), a structure also directly connected with the same Warrior cult.[105]

Cotzumalhuapa region. On a large boulder at El Baul there is a scene depicting human sacrifice. "One of the victims," writes Thompson (1948, p. 27, fig. 5,*a*) "wears a mask of Tlaloc and a headdress which is a simplified form of that worn by the Tlalchitonatiuh impersonators at Chichen Itza."

Tula. Practically the same figure as the one at Chichen is found here over the Colonnade of the main temple. He does not have circles around the eyes, but his pose is identical and his decorated staff is similar (fig. 244). Other reclining figures at Tula will be considered in Chapter IV.

Valley of Mexico. At Calpulalpan, Tlaxcala, Linné (1941, p. 179) found a molded bowl bearing elaborate designs, one of which seems to be the god Tlalchitonatiuh. He has the same association with the Jaguar-Eagle cult as he has at Chichen Itza. Tlaloc and this deity are sometimes difficult to differentiate.

Codices. In the Aztec codices, in the sixteenth week of the *tonalpohualli,* Xolotl is the ruler; opposite him is Tlalchitonatiuh with the Tlaloc countenance. In the Borbonicus (fig. 356) and in the Aubin (fig. 354) the sun appears in connection with the god; both are about to enter the jaws of the earth monster. In the Borbonicus the circle at the back of the head of the figure and the suspended portion have been interpreted as the false hair, already mentioned.

XIUCOATL. This deity is called the "turquoise snake" or "serpent of fire." According to one myth, Huitzilopochtli represented the sun. He was born with or provided with, a "serpent of fire" as an aid. It was he who carried the sun in the heavens. Thompson (1942) considers the typical Rio Bec façades as representing celestial and terrestrial monsters, the Xiucoatl.

The most common characteristic of this serpent god is a crest or helmet mask on his head; he is often shown with forefeet. Generally the body of the reptile is divided by crosslines and is often decorated by spikes on both sides. A blue color is sometimes seen on the body.

Chichen. In the Temple of the Chac Mool are four serpents in fresco in each of the two chambers (fig. 245). A similar reptile is on the altar panel of the Temple of the Warriors (Morris, 1931, p. 415) and in the Northwest Colonnade.

The same design appears also in fresco, in Thompson's Temple (Str. 3D9), and it probably once existed in the Temple of the Little Tables (Seler, 5:380).

Four heads of this god are recognized by Caso (1928, p. 146) as appearing on the mosaic mirrors in a cache in the Temple of the Chac Mool.[106]

Over each of the eyes of the famous gold Tlaloc mask from the Sacred Cenote (fig. 216) is a feathered rattlesnake. The crest on the head points to its identification as Xiucoatl, who carried the sun in the heavens. The home of the Tlalocs was the underworld, where the sun was received at the end of each day.

A graffito on the west wall of the Temple of the Jaguars (fig. 246) probably represents the crested head of the same god.

Xiucoatl is incised on one of the 59 spindle whorls from this site illustrated by Kidder (1943, p. 98,*aa*).

Cotzumalhuapa. Thompson (1941a, 1948) shows a Xiucoatl on Monument 2 and on the headband of a figure on Monument 3 at Baul. For comparison he gives a drawing of the same god from the Nuttall Codex (fig. 247).

Tula. The back-shield on at least one of the large atlanteans shows four serpents or Xiucoatls separated by four pairs of radiating sun rays with a human head in the center, making a sun disk (fig. 248). The design is not unlike that on the mosaic mirrors at Chichen.

Tizatlan. The god is recognized on Altar B, first figure on the east side.

Valley of Mexico. The god appears in many forms in this vicinity, most of them seemingly in a late period. Perhaps the best-known example is on the Mexican calendar stone, where two Xiucoatls encircle the stone, each meeting at the bottom with a human head in his jaws (fig. 249). There is another excellent example in the National Museum (Marquina, 1951, p. 193). At Tenayuca are two serpent altars; each reptile has its crest (Caso, 1928a). The fire god, Xiutecutli, appears on one side of the "Teocalli de la Guerra Sagrada"; his counterpart in Borbonicus 9 appears out of the head of Xiucoatl (Caso, 1927). In the Bliss Collection (cat. no. 110) there is an excellent example of this god in quartz. On the outside of the stone sometimes called "El Lavadero" is the same deity (Peñafiel, 1910, pl. 64).

The god frequently appears with forefeet, as in the Chichen fresco. The British Museum stone (Joyce, 1914, pl. V,*a*) presents the god at his best. Seler shows heads with crests from Tenochtitlan (2:897) and an excellent Xiucoatl on the end of a handle of a clay incense burner (2:861).

Los Sacrificios. It is possible that this form of the serpent (fig. 606) is on a band of a Fine Orange vase from a grave (Du Solier, 1943, p. 76,*k*). The body of the serpent behind the right of the two figures on a polychrome vase here may be that of Xiucoatl (*ibid.,* p. 78,*o*).

Codices. The god is often shown in the Mexican manuscripts. For example, the footed and crested Xiucoatl occurs in Nuttall 76 and 79 as a place name; in 56 and 57 as a headdress. In Telleriano-Remensis 18, Borbonicus 23, and Borgia 67 (fig. 250) the forefooted and crested monster is swallowing a man, a common theme. There are four sky monsters, each with a pair of legs and each representing a world quarter and color.[107] The whole body of the victim (fig. 251) or only the head (fig. 252) is shown with Xiucoatl. In Nuttall 69 the god appears with a group associated with the Jaguar-Eagle cult.

XIUTECUTLI, also called Huehueteotl, is the "very old" fire god. He was the lord of the twentieth week of the *tonalpohualli* in several of the Mexican manuscripts, and was one of the Nine Lords of the Night. He seems to be missing at Chichen, but is identified by Thompson (1948, fig. 10,*d*) on a large boulder at El Baul. Thompson calls attention to its resemblance to the large heads in southern Veracruz. The band across the forehead has already been interpreted as belonging to Xiucoatl.

An excellent example of Xiutecutli in clay was discovered by Stirling in Cerro de las Mesas (Drucker, 1952).

TLALTECUTLI, the "Senor de la Tierra," the earth god, is discussed with the earth monster.

MICTLANTECUTLI, the god of the infernal regions, was one of the Aztec Lords of the Night. He was discussed in Chapter III-7E6.

IXQUIMILLI. This is the blindfold god of the Mexicans. Thompson (1950, p. 220) writes: "Ixquimilli is a shadowy deity, who partakes of the attributes of both Tezcatlipoca and Itztlacoliuhqui. . . . As lord of the twelfth week, Cuetzpalin, in Borgia, Bourbon and Telleriano-Remensis, as well as in the Tonalamatl of Aubin, Ixquimilli wears the hood of Itztlacoliuhqui which curves backward. . . ."

Here, we are primarily interested in this god as Thompson has identified him as the middle figure in Dresden 50. The famous Venus almanac of this manuscript (46–50) is, as a whole, of Mexican origin. Of the five Venus gods in these tables Thompson considers two to be Maya (46, 47) and the other three "almost certainly Mexican." "One is probably Quetzalcoatl" (49), another (48) has the Mexican *oyoualli,* and the third (50) is the god noted above. A blindfold warrior with his *atlatl* is noted in Laud 13.

XIPE. Xipe Totec, "our Lord the flayed," was an important Mexican god, originally associated with maize but more intimately connected with human sacrifice. Traditionally, the origin of his worship seems to have been Oaxaca. He wears a human skin; there are several excellent examples of him in stone, as well as many clay heads representing his face covered with human skin. In the entire Maya area this god is a rarity. At Aguna in the Cotzumalhuapa area, there are two tenoned stone heads of this deity. Thompson (1948) recognized these as almost identical with one I found at Santiago Ahuitzotla [108] (Tozzer, 1921, pl. 10,*d*).

CHICOMECOATL ("7 Serpents"). It is possible that in the six-time repeated scene on the bench of the Great Ball Court at Chichen, the sacrificed figure with six serpents together with the vine coming from the neck of the victim may represent this god, associated with maize (Mateos Higuera, 1946).

CRAB GOD. The possible presence of a cult of the crab is noted by Thompson (1948, pp. 20, 27, fig. 8,*a*) as shown in Cotzumalhuapa sculpture at El Baul where a god "emerges from a crab with the lower part of his body in the form of this crustacean." The author notes crabs on spindle whorls from the Huasteca, and on gold and pottery from Panama and Nicaragua. Lothrop (1926) gives examples and evidence for deriving the cult from Peru. Two excellent gold bells in the form of crabs in the Veraguas (Panama) style were rescued from the Sacred Cenote (Lothrop, 1952, pp. 103, 104).

SKY GODS. *Planetary bands and their deities.* Monsters are depicted in many of the great centers in the south, commonly associated with bands of stars and constellations and water. Dresden 74 shows a line of planetary symbols above the sun and moon glyphs. From the end of the line of glyphs issues a crocodile; from him and the sun and moon glyphs streams water, all this comprising a sky monster. Thompson (1939, pp. 154, 160, fig. 4) associates the god Itzamna with these monsters and with rain falling from the skies. "He was almost certainly looked on as four-fold, each of his aspects being associated with one of the [four] world colors. . . ." The bacabs, he thinks, are probably part of the complex, together with Xiucoatl, "serpent of fire," seen in Borgia 72 and Vaticanus B 73.

We are mainly concerned here with a figure at the top of a composition, often on a column, descending from the heavens. Unlike Tlaloc and some of the other gods, this design is generally to be placed in a late period.[109] This sky god (fig. 253) is often seen in the guise of a bird who descends to partake of an offering. Such figures have usually been called diving gods. In Chapter VI-3 are references to the deities who are supposed to descend to receive the sacrifice made to them. Landa gives us abundant material on this subject. The prayers of the Lacandon today contain the same idea, an invitation to the deities to descend.

Chichen. The most common form of this deity is the upper figure on all the columns, pilasters, and jambs of the Temple of the Warriors and its Northwest Colonnade. A Toltec with his *atlatl* and darts descends from a sun disk (fig. 274). In the corresponding place at the bottom of the design is a figure of an earth monster, a guardian of the underworld.

The Toltec emblem of the bird either on the headdress or as a breast ornament is considered elsewhere. There are a few examples where a realistic bird seems to be flying downward, possibly representing a figure from on high. On table atlanteans from the Temple of the Jaguars and the Temple of the Big Tables (Seler, vol. 5, pls. 18, 20, 22) this type of bird appears on the headdress.

Designs on most of the gold disks from the Sacred Cenote show a creature in the sky, a scene on the earth, and usually a monster representing the underworld. It should not be forgotten that the heavenly deities themselves sometimes visit the world of the dead.

Lothrop (1952, p. 35, fig. 15) pictures these sky deities at the top of seven battle disks and remarks, "There always is a serpentine element and sometimes nothing else. Usually, however, there is a human figure, either enmeshed in serpent coils or issuing from a snake's mouth. The function of these figures apparently is to preside over or perhaps to direct the action depicted below." Four of the five personages (Disks B, E, G, H) coming from the mouths of the reptiles are definitely Toltec with the mosaic headband, the *atlatl,* the bird sign, or the typical leg decoration. The serpent and the human figure on Disk H are shown in figure 254. The god on Disk C (fig. 255) holds an *atlatl,* but his necklace is Maya and his skull has a flattened frontal. At least three of the figures (Disks G, B, H) seem to be on their way to earth. I cannot feel, with Lothrop, that these figures "obviously are interested in mundane affairs" or what goes on beneath them.

There is certainly no suggestion of any offering to the gods.

There seems to be a direct parallel here with the Temple of the Warriors columns, just described: a Toltec warrior at the top, the main design in the center, and a monster at the bottom, all possibly part of the Jaguar-Eagle cult of the Dead Warrior.

In one of the crudely carved designs on the Temple of the Wall Panels a figure, with probably an *atlatl*, hovers over a thatched house where there are three more figures, two of whom are associated with snakelike creatures. Jaguars, owls, eagles, and parrots abound.

A crude wooden figure of a human being covered with rubber, from the Sacred Cenote, has the feet above the head, a position which may indicate a diving god.[110]

East Coast. Tulum has many examples of the diving god, usually of stucco and occupying a niche over an entrance. Some show the tail of a bird with wings on the arms and shoulders, the hands clasped together in their downward flight. A diving god in the form of a bee from Str. 25 at Tulum and a bee from the Madrid Codex (fig. 256) will be commented on later (Lothrop, 1924).[111]

There is a type of late *brasero*, usually from the East Coast but illustrated in many places, where a winged creature is coming from on high. He has a human face, and arms that meet in front of the body and hold a dish presumably containing nodules of copal (Gann, 1926). Gann (1918, p. 133) illustrates a figure in diving position on a small vase from Santa Rita, a site occupied until late times.

At Nohoch Mul, Coba, there is a diving god of stucco in a panel over the doorway of Str. I (Thompson, Pollock, and Charlot, 1932).

Cotzumalhuapa. A series of monuments here show individuals clearly connected with the ceremonial ball-game and human sacrifice. They appear to be addressing, by means of speech-scrolls, some celestial figures, a few of whom seem to be proceeding toward the earth (fig. 488).

At the top of the much discussed monument at El Baul a human head emerges. This somewhat suggests motifs on the Monte Alban stelae (Habel, 1878; Thompson, 1941, 1948).

At Palo Verde, north of Santa Lucia, are three monuments each with a figure raising his arms to greet various bodies coming from on high. One is a jaguar, another death, and the third a feathered serpent (Thompson, 1948, p. 19).

Tula. There is little evidence of a "falling god" here. On a stela is a figure with a breast ornament of a bird or butterfly flying downward (fig. 552). On another stone a bird figure with a human head in the jaws seems to be coming from on high (fig. 593).

Veracruz. At Tajin, on the northeast panel of the Great Ball Court, above a picture of human sacrifice, a skeletonized figure of death descends from on high (fig. 493). A grotesque monster is in the sky on the southwest panel (fig. 453). A diving god appears on a flat ceremonial axe in the Bliss Collection (cat. no. 105).

The famous stone of Tepetzintla, from Tuxpan, called "the Toad" (fig. 257) shows a different type of god coming from above, wearing the typical pointed Huastec cap. This, as already pointed out, has been considered a representation of Tlauizcalpantecutli.

Oaxaca area. Many of the stelae and other stones from Monte Alban have, at the top, the jaws of a heavenly monster from which emerge the head and arms of a god (fig. 258). A few of the urns show a falling figure. At Xoxo, above the entrance to one of the tombs, there is a god evidently from on high (Seler, 1888, 2:335). Finally, at the top of a fresco at Mitla, a line of heads is associated with sun rays (fig. 278,*a*).

Tenochtitlan. On the bottom of many of the stone *quauhxicalli*, a monster, usually with jaguar claws on the four feet and often associated with death, is coming from the heavens (Seler, 2:767–912). On a mosaic mirror in the Heye Museum there comes from the heavens, indicated by a sun disk and stars, a figure, possibly a warrior.

Codices. In the Maya manuscripts are excellent illustrations of men, bees, bees with human face and arms, and dogs descending from on high or from a constellation band (fig. 259).

In Dresden 40b both God B and a dog with a blazing torch in each forepaw descend from a line of glyphs. In Madrid 25b two dogs with torches hover over blazing ollas of copal.

In Madrid 103–06 and 108–09 bees come from above. Roys (1933, p. 63) identifies Ah Muzencab, the Maya bee god, as the diving deity (fig. 256). (The bees will be discussed later in connection with the sky bearers or bacabs.) In Madrid 109a a bee with human face hovers over a brazier of flaming copal. In 109c, the bee descends to partake of an offering held by the black God M (fig. 260).[112]

In Nuttall 21 three red-striped warriors come from a sun disk and star symbols in a night sky. These figures are duplicated in Nuttall 4. In the Vienna, Eecatl descends from a line of stars.

SKY BEARERS OR BACABS. *Early references.* Landa (1941, pp. 135–36) tells us:

> Among the multitudes of gods which this nation worshipped, they worshipped four, each of them is called Bacab. They said that they were four brothers whom God placed, when he created the world, at the four points of it, holding up the sky so that it would not fall. They also said of these Bacabs that they escaped when the world was destroyed by a deluge. They gave other names to each one of them and designated by them the part of the world where God had placed him, bearing up the heavens. . . .

In the Chilam Balam books there are references to the Ah Muzencab. In the Chumayel we read, "The white ceiba tree of abundance is the arbor of the white Mucencab." Roys (1933, pp. 63–64), considers that this refers to the bees who "are closely connected with the Bacabs and the four world-quarters." The illustration (fig. 256) shows a sky god from Tulum and a bee from the Madrid Codex. Roys also refers to a similar diving god from Coba, already mentioned, where the Muzencab are still believed to live.[113]

Tzitzimime. These sky bearers have been identified as the Tzitzimime, "demons of darkness" or "star gods." As with their representatives, the low-relief atlanteans at Chichen, there were at least four varieties and they stood at each quarter of the heavens.[114] "Included in their number," writes Thompson (1934, p. 231) "were Tlauizcalpantecutli, Itzpapalotl-Otontecutli, Quetzalcoatl and Mictlantecutli, who were the upholders of the night heavens at their four quarters." These are associated with the figures in the Codex Bologna (21–31) and "to a lesser degree" with the Fejervary-Mayer (5–26, 43).

Comparative study. These bacabs are of considerable importance to our comparisons between Chichen and Mexico. Thompson (1934, p. 237) writes:

> Our wanderings along this little-trodden labyrinth of Mexican and Maya mythologies indicate that there is a considerable amount of evidence for formulating an integrated concept of deities who upheld the sky and were associated with world directions and world colors. In Mexican belief, at least, they were considered to be stars, who made doleful descents upon mankind during the darkness of solar eclipses, and who had as their symbols spiders, bees, scorpions, turtles and various types of shells. The association with stellar deities and eclipses is not supported by Maya documentary evidence, but the association with spiders, turtles, shells and, possibly, with bees is demonstrated by sculpture at Chichen Itza.

Thompson (1934, p. 239) also lists 13 characteristics of the sky bearers among the Maya and the Mexicans, all but two of which are common to both peoples. Of the 20 other shared features of mythology and ritual, only those affording archæological data, such as human sacrifice, are considered here.

Chichen. The division of most of the columns, jambs, and pilasters here into what can almost be called regions has been noted. The smaller areas at top and bottom often seem to relate, the first to the heaven and the second, in most cases at least, to the underworld. The large center section would, in this case, be the world about us and its people. These smaller divisions are occupied by four different designs: the sun disk with a Toltec, masks, the Jaguar-Eagle-Bird monster, and atlantean figures who are found only in this position at Chichen. Here we are concerned with this generally male caryatid who has been identified as a bacab.

In the Castillo the additional space provided at the top of the column by the capital is occupied by an atlantean (fig. 261). This kind of figure appears in a line of three or four (two are shown in fig. 262) around the capital of each of the serpent columns in the Castillo, the Temple of the Warriors, and the Temple of the Chac Mool. These supporting individuals are Maya.

It has often been noted that most of these atlanteans can be classified according to features around the human figure. The first is the shell (fig. 262, first human; fig. 263); the second, the shell of a turtle[115] (fig. 261); the third, the so-called "spider web" (fig. 262, second human); the fourth, possibly a bee (fig. 264). Of the 53 recognizable atlanteans on the capital of the serpent column and on the pillars of the Temple of the Chac Mool, 56 per cent are associated with shells (not differentiated), 25 per cent with the "spider web," 15 per cent with the turtle, and 4 per cent with the bee. (Turtles and shells have already been considered in Chapter III-7c6 and 7c7.)

There are a few of these figures which do not belong to any of these categories, among them a skirted figure, noted especially in the Temple of the Big Tables. They often show the tubular nose-bead, and almost invariably a speech-scroll; there are few distinct Maya characteristics. It is possible that these figures represent women. One (fig. 265) wears a spotted skirt, a feature associated with the male donors who are all Maya.

The low-relief atlantean is also the main figure on each of the four faces of the two columns of the Lower Temple of the Jaguars. In each case the personage is associated with an undulating serpent whose tail runs down into the lower mask. The minor design at the top of these eight sides is the mask with corn (fig. 346); at the bottom, the vine coming from the eyes and the maggot sign of death and the underworld (fig. 345).

On the north column the main figures are skirted; on the south pillar, they have the usual Maya characteristics[116] and seem to be associated in one case with the turtle, in two instances with a shell. These figures may thus be bacabs, as are the smaller atlantean figures. It should be remembered that at least one of the personages at the south end of the wall here is also associated with the turtle although he is not represented as an atlantean.

The atlantean as the main figure is also on the pilasters of the Temple of the Warriors and the jambs of the Northwest Colonnade. The upper and the lower design in both structures are, respectively, the sun disk with the Toltec and the Jaguar-Serpent-Bird.

In niches in the façade of the Iglesia are four human figures (fig. 266), which may have been placed there when the face of the temple was repaired. The second one seems to be connected with a shell, the third with a turtle, and the fourth with the shell breast ornament (*oyoualli*). It seems fairly certain that these should be identified as bacabs.

All these atlanteans in bas-relief, whether large or small, bacabs or otherwise, seem to be Maya, usually with beard, long nose-bead, long decorated ends of the *maxtlatl*, and necklace with perforated shell ornament. The four figures with dotted or netted skirts, sometimes with crossbones, on the north column of the Lower Temple of the Jaguars are also probably Maya, as will be shown later.

The supine figures with the dotted skirt, sometimes shown as supporting a serpent at the bottom of the design as in the North Temple and in the Temple of the Jaguars, probably belong in the same group as those just described. They are considered in Chapter IV-2.

7H. ASTRONOMICAL FEATURES

SUN DISK. This well-known circular design with solar rays projecting from a ring, although generally regarded as a common feature in the Toltec periods at Chichen and especially in the Aztec epoch in Mexico, is noted in a few of the earlier Maya centers.

Classic stage. In two places at Palenque the sun lies in the center of a disk with four serpent heads emerging from the ring in place of the rays (fig. 267). The same design is on an astronomical band on Stela 10 at Piedras Negras.[117]

At Yaxchilan, Stelae 1 and 4 have at the top both the sun and the moon; a figure is seated in the center of each. An astronomical band and two Venus signs are below. Also at Yaxchilan is a series of interesting round altars, some of which are divided into quarters (Morley, 1937–38, pls. 105–06).

Although not dating from Classic times, the Paris Codex shows a disk somewhat similar to that from Palenque. Here the sun glyph is in the center, about to be swallowed by a monster below (fig. 268).

Chichen. In the painted chamber of the Temple of the Jaguars the sun disk appears at least four times. One of these (fig. 269) has a conventionalized head of a serpent at each corner similar to the figure from the Paris manuscript and somewhat like that at Palenque. In each instance in the Temple of the Jaguars, a Toltec sits in the center of the circle. The front, back, and under side of the carved lintel of the Temple of the Jaguars each show a Toltec warrior, with his weapons, resting on a jaguar seat within a sun disk. He is confronted with another Toltec warrior associated with a feathered serpent (fig. 270).

There may have been a similar scene on the wooden lintels of the Castillo. The designs are now very difficult to make out, but a sun disk can be discerned.

High up on the bas-relief of the Lower Temple of the Jaguars is a seated figure, also on a jaguar throne and within a sun disk (fig. 271). He is provided with *atlatl* and darts. His headdress, mosaic cape, jade necklace, ankle cuff, and instep ornament identify him as Maya. His speech-scroll, however, is a conventionalized serpent head, almost exactly like that before one of the two main Toltec below (C12) in the same bas-relief. The figure usually accompanying the sun is absent.

The circular design divided into quarters on many of the back-shields and some of the rosette designs suggest, in some cases, the sun disk, as do the mosaic disks found as offerings in the Castillo *sub* and the Temple of the Chac Mool. Here also in each case are four heads of the god Xiucoatl.

On the north wall of the North Temple of the Great Ball Court there is a Toltec on a jaguar seat within a solar circle (fig. 272). Near him are two Toltec associated with an unusual type of serpent already noted in figure 106. This scene is essentially similar to those on the lintel in the Temple of the Jaguars and to the one on the south wall of the fresco in this structure.

Another somewhat similar scene is on a vase, probably from Tula, in the Berlin Museum (fig. 273).

The sun, with feathers on either side, seems to put in an appearance at the top of a few of the masks and minor figures on some of the columns. The best example is on Drum 4 found with a round column at the North Temple (fig. 337). Others are on the lower figures in the Temple of the Jaguars and the masks on the South Temple of the Ball Court.

At the top of all the columns, jambs, and pilasters in the Temple of the Warriors and the Northwest Colonnade appears part of a sun disk, from which a Toltec warrior seems to be descending as from the sky (fig. 274). At the bottom of the pillars is an earth monster at the entrance to the underworld.[118] This sun disk on columns, appearing only in structures of Group B, seems to be quite distinct from the full solar disk seen in Group A, where we have noted the Toltec seated opposite a figure with a feathered serpent.

In the Temple of the Wall Panels on the south wall is another disk (fig. 275), inside of which a Toltec warrior appears. Note the crudity of the execution of this carving of Chichen III compared with that on the solar disks from the Temple of the Jaguars.

From the Sacred Cenote came three plaques of gilded copper (fig. 276), each with a border of sun rays alternating with a shell design. As the central figure or part of it is an eagle, an additional association with the cult of the Sun and the Warriors.

There are two pairs of disks in the same collection. The lower of the first pair shows the glyph of the sun on gilded copper (fig. 277); the other, the sign of the moon on a tin plaque. Curiously enough, it is the latter which is surrounded by four rays of the sun and four of the figures usually found on the Aztec eagle bowls. The rays of the sun may be pictured on some of the spindle weights found at Chichen (fig. 501). On the North Colonnade façade are several shields which may represent sun disks.

East Coast. In northern British Honduras, Santa Rita has a series of frescoes of the same period to which the gilded copper eagle plaques from the Sacred Cenote seem clearly to belong. There are two interesting sun disks here (fig. 278,*c*,*d*). The second is broken by the emergence of a serpent; possibly, on account of its crest, it is Xiucoatl, associated with the sun. In the Codex Porfirio Diaz (*e*) is a similar design.

Southwestern Campeche. At Isla Cilvituk A, there is a region showing late remains affiliated with the East Coast. A fragment of an incense burner with one ray of the sun is pictured by Andrews (1943, fig. 15,*g*).

Guatemala. At El Castillo in the Cotzumalhuapa region, on Monument 2 (Thompson, 1948, fig. 7,*c*) "a person climbs what may be a prolongation of the jaw of a celestial monster toward a deity emerging from what may be the throat of the monster." It is conceivable that the personage at the top is emerging from a kind of sun disk (fig. 279). Otherwise this solar device seems almost entirely lacking in this region.

At Pueblo Viejo, Quen Santo, a stone disk held in the center a human face representing the sun (Seler, 2:251). A second one is reported from nearby Trinidad (Seler, 1900, p. 161).

Tula. A common pattern is noted on several sun disks. Between the rays is a *quauhxicalli* or eagle bowl, wholly or partly associated with the cult of the Sun and the Warriors. The design is shown in figure 278,*d*,*e*. Here at Tula part of a large stone ring with rays and the eagle-vessel design was found (fig. 279A). A kind of sun disk, associated with Xiucoatls, has also been described on a back-shield of at least one of the tall atlantean columns here (fig. 248).

Veracruz. A sun disk seems to form part of the border at the top of a panel at the Lesser Ball Court at Tajin (E. Spinden, 1933, pl. 16,*a*).

In a fresco at Cempoala is an excellent sun disk with two glyphs, one of the moon and the other possibly of the sun or a star (Seler, 5: 145–46). These are somewhat similar to the two pairs of suns and moons on the copper disks from the Sacred Cenote.

Valley of Mexico. Very many disks have been reported from this region, especially in Aztec times (Beyer, 1921). On the famous calendar stone eight rays of the sun and eight *quauhxicalli* surround a face of the sun god, Tonatiuh, within the sign 4 Olin, the supposed date of the end of the present or fifth age or "sun" of Aztec history. The representation of a temple with the sun disk on top of a pyramid is on the so-called Piedra Nacional or "El Teocalli de la Guerra Sagrada" (Caso, 1927). The Tizoc stone is, perhaps, the third famous stone depicting the solar disk. Peñafiel (1910) shows many others, including ones often appearing on the bottom of *quauhxicalli*. On the so-called pulque bowl in the Vienna Museum are, above the face, a sun disk and stars representing day and night (fig. 280).

On one of the most beautiful mosaic turquoise mirrors in existence, now in the Heye Museum, New York, is a band of stars with a sun disk in the center (Saville, 1922).

In the Basel Museum is a seated figure of Tonatiuh with an excellent sun disk on his back (Dietschy, 1941).

There is a famous sun disk in the Humboldt Collection in the Berlin Museum. A Toltec, sitting cross-legged in the center with his *atlatl* and darts, wears an elaborate headdress and a nose bead; speech is indicated (fig. 605).

The sun disk, probably in connection with the cults of Jaguar-Eagle and the Ball Game, is frequently found on the ring of the ball court (Guerrero, 1953).

Oaxaca. In the Mixtec-Zapotec region are several small objects with essentially the same design (fig. 281,*a-c*). The first two are stone; the last one is the second member of a gold pendant found in the famous Tomb 7 at Monte Alban. The Mitla frescoes furnish examples of a sun disk and celestial figures alternating with rays of the sun (fig. 278,*a*). Andrews (1943, fig. 15,*i*) gives similar designs from the "Calendario de Oaxaca."

Codices. The solar disk is a common feature in practically all the Mexican manuscripts. The fourth of the 13 gods is Tonatiuh, the sun god, shown by a disk. He corresponds to the Piltzintecutli, the third of the nine gods, also belonging to the Sun but usually represented by a head only (Seler, 1900–01, pp. 21, 26).

Tonatiuh descends from a sun disk as the ruler of the fourth *tonalpohualli* in Borgia 7 (fig. 282), Bologna 7, and Vaticanus B 7, in much the same way as a Toltec with his *atlatl* is coming from the sun at the top of the columns at Chichen.

In several of the Toltec manuscripts the disk appears above an arm and hand holding the accoutrements of war above some of the means of sacrifice (fig. 283). Magliabecchiano 60b shows a sun disk, called the Sol Negro, in designs on the *mantas*.

In the Mixtec manuscripts the god and his solar sign are represented in various ways. From the Vienna Codex, Spinden (1940, p. 169) shows five disks; three on the left are divided into day (the sign of the sun) and night (with stars). Figure 284 shows the upper of two on the right, with the warrior and his *atlatl* in much the same way as at Chichen, Tenochtitlan (fig. 602), and other places.

In Nuttall 21 a sun with the sign Olin and one with death each descend from the sky. Nuttall 19 shows a sun and moon in the sky, their presence together suggesting these heavenly bodies found on metal disks in the Sacred Cenote. In Nuttall 25 Tlaloc is carrying a sun disk on his back. The same manuscript shows a design very similar to those on the Mitla fresco (Andrews, 1943, fig. 15,*f*).

In the Porfirio Diaz manuscript the disk is interrupted by the figure of a god in much the same way as on the fresco at Santa Rita (fig. 278,*e*).

Part of one of the simplest of disks appears in the Manuscrit du Cacique (fig. 285).

In Laud 14 a god, carrying his bone for sacrificing, is shown in connection with a flower-decorated serpent and a sun disk.

In the post-Columbian Codex Yanhuitlan (Berlin, 1947) are two sun disks. In the center of one (pl. B) is a head with closed eyes, the nose pierced by a bone, and seemingly a stone in the mouth.[119] Berlin considers this head to represent Xipe. The other solar disk (pl. C) shows a figure similar to the first, but clearly the center design represents a living person.

Berlin calls attention to the Vienna 41, where there are two houses, side by side. In one there is a simple sun disk; in the other, the face of a dead man with something in his mouth.

STAR GLYPH OR "CELESTIAL EYE." This is also called "star eye," "radiating eye," "eye of light," and "eye of rays." It has often been interpreted as the sign for the planet Venus and is usually associated with the butterfly god, Itzpapalotl (Caso, 1949a). This design, together with the sun disk, belongs generally only in the Toltec and later periods in Middle America.

Chichen. The complete configuration (fig. 286), found in the Temple of the Jaguars fresco, consists of a center personage, a quatrefoil-like form with four roundish petals, imposed upon four pointed rays. Here the design is somewhat obscured by the figure in front. The mosaic headdress, the curved stick, and the darts clearly show he is a Toltec warrior. The full sign also appears on the east wall of the room.

Usually only half the design is shown. It is most commonly found in rows, as a frieze. The Mercado dais has three faces. On each side, at the top, is a border of a single serpent, in the folds of whose body are eight half-stars (fig. 126). This border on the front has two reptiles, facing each other, with five "eyes" to each serpent (Ruppert, 1943).

Mausoleum III (fig. 297) shows this figure in connection with a reckoning of cycles and Venus periods, which will be noted later.

Several of the jambs and pilasters of the Temple of the Jaguars (K1, -5, -6, -10, H3) show what is probably half of a star glyph directly under the mask at the top of the design (fig. 278,*h*). In every case, this is in addition to the name sign which in two instances is a stone point, in two others, two feathers.

In the South Temple in the same group, this star sign appears near the feet of a Toltec on Column 1, Drum 5, as well as above one of the eagles in Mausoleum I.

In Str. 6E1 the star symbol appears three times on Drum 6 of a column in association with human figures.

Several Toltec warriors wear the star design as a kind of skirt (fig. 287). This feature is considered in Chapter IV-1.

East Coast. Here the star symbol seems to be missing although it appears on the late fresco at Santa Rita (fig. 278,*c*), where there is an upper line of "eyes" alternating with sun rays.

Guatemala. At Cotzumalhuapa there is a type of figure noted on Monument 5 (Habel, 1878, pl. 5). Above the sky god are three points of an eye "under a large eyebrow curled at the ends." The worshipping figure wears the same sign as a headdress and it appears also at the end of a staff.

Zaculeu. On a red-and-buff cylindrical tripod vase from a grave are three oblique panels on which are portrayed halves of three "eyes." This seems to have come from the Atzan, or Early Classic horizon (Woodbury and Trik, 1953, p. 129).

Tula. The celestial star is on a stone from the Ball Court (fig. 288), as a skirt on a figure on one of the sculptured pillars (fig. 289), and on another stone from Sala 1 of Edificio 3. On the frieze is an excellent example of a Toltec lying at full length wearing a star skirt (fig. 290). Many of the skirted personages are considered in Chapter IV-1.

Veracruz. On four sides of a carved stone at Tres Zapotes are figures in combat. The stellar sign, as seen at Cotzumalhuapa, is part of the complicated design (Stirling, 1943, pls. 17–18).[120]

Valley of Mexico. The sign for "radiating eye" is common on many of the stone objects from this area. It can be seen above the line of figures on the Tizoc stone. On a *quauhxicalli* in the National Museum, the star has an elaborate form (fig. 291). A more conventionalized type is inscribed on a stone in the same collection (fig. 292). The Martel stone from here shows the "star" behind the figure of a "monster" (Seler, 2:829; Caso, 1949a, p. 43). The design alternating with a *tecpatl* or flint knife appears on a calendar stone now at Yale University (fig. 293).

Oaxaca. In the Zapotec area the same emblems appear: on a stone relief at Xoxo (Caso, 1928, fig. 78); on a shell gorget from Tomb 7 at Monte Alban (Caso, 1932a, p. 505); with a human face on a fresco from Mitla (fig. 278,*a*) in connection with the sun disk; on bone carvings from Tomb 7 at Monte Alban.

Codices. In the Mixtec manuscripts it is common. Among many places, we find the design in Nuttall 19 where it appears

between the signs of the sun and the moon. In the Manuscrit du Cacique the symbol appears at either side of a stone knife (fig. 294). Seler (4:724) shows the emblem as it appears in the Vienna (fig. 278,*g*), in the Fejervary-Mayer (fig. 278,*f*), and in other places in connection with his discussion of the "obsidian butterfly" (*itzpapalotl*) (see also Caso, 1949).

ASTRONOMICAL OR PLANETARY BAND. *Classic stage.* This is a row of square or oblong blocks of hieroglyphics. They are almost exclusively found in the central and southern Maya sites belonging to the Classical epochs,[121] running into the Yucatan-Maya period at Uxmal, Chichen, and other sites. They also appear in the three Maya codices. When this band of signs begins with a grotesque head, ends in a tail, and is associated with rain, it has been called a sky monster. Sometimes this dragon has two heads. This beast has already been discussed in connection with Thompson's theory (1939) associating it with Itzamna and the bacabs. God B is often found with it. The signs of the sun and moon and Venus have been identified. Stelae 1 and 4 at Yaxchilan have the band.

Glyphs for Saturn, Jupiter, and Mercury were probably incorrectly interpreted by Förstemann (Bowditch, 1910; Spinden, 1913, pp. 19, 20, 55). These signs seldom occur in the Toltec periods in Yucatan.

Chichen. There are two Toltec structures here which have this type of band. The first is on the painted capstone (fig. 384) in the Temple of the Owls, where a line of "planets" is on each side of the main figure.[122] The second is a sculptured band of signs on the façade of the Southeast Colonnade (fig. 295). The sun seems to occupy three of the seven places; the so-called "Saturn" fills two (the second and fourth glyphs).

On the east façade of the Monjas, dating from late Classic times, there is a sky band of 24 glyphs. Of 23 which can be deciphered, nine are forms of the so-called "spectacle" sign for the Venus glyph associated with animals, birds, or death. The same design is on some of the lintel glyphs in the same structure (Maudslay, 1889–1902, vol. 3, pl. 13).

VENUS. *Classic stage.* The best examples of the Venus "spectacle" sign in this period are two on Stela 4 at Yaxchilan. They lie below the signs of the sun and moon and a constellation band, which also contains the symbol of this planet. Stela 1 shows much the same arrangement.

At Copan on Altar G1, Venus appears over the eye of a figure. Other examples are in the Palace at Palenque, on Altar R at Copan, and in the Dresden Codex (fig. 296).

Chichen. Various glyphs of this planet have just been described on the Monjas.

On Mausoleum III, below a frieze of serpents, are groups of three different designs (Seler, 5:367), the center one (fig. 315) being the Jaguar-Serpent-Bird monster. On the left is a plain knotted figure (fig. 313), a *xiuhmolpilli;* on the right, a more elaborate design (fig. 297). To the left is the star symbol and above, on the right, the year sign, below which is a knotted design representing the Aztec *xiuhmolpilli,* the binding up of the 52 years of the cycle. There are four dots on either side, the whole probably signifying 8×52 years. Thus we have 8×52 (years) of 365 days $=$ 151,840 days. This is exactly the same number of days as 260 years $\times$ 584 days of the Venus period.

The "spectacle" type appears above a Toltec figure on Column 5E of the South Temple of the Great Ball Court. The appearance of the Venus sign is on the border of Disks E and D from the Sacred Cenote (fig. 298,*a,b*).

Codices. Dresden 46–50 is a Venus almanac and either the double or spectacle types occur usually across two lines of glyphs on the first half of each of the five pages. In Dresden 47 the end of an elaborate headdress is the Venus glyph worn by a Mexican warrior with *atlatl* and darts. The sign also occurs in Dresden 47 and 56 in two constellation bands, once above the head of God B and again (fig. 565) in connection with day and night with a "monster" beneath.

"SATURN." The glyph which used to be considered as representing this planet is shown next. It seems to go back to Classic times as it appears on Stela 3 at Seibal (fig. 299) shown with the number 7. Bowditch gives the sign as in figure 300,*a.* Some forms of the Aztec day sign Cipactli look somewhat like this glyph.

Chichen. It is recognized here as the second and fifth figure in the middle group on the band in the Southeast Colonnade (fig. 295). It is also identified in the line of glyphs at either side of the painted capstone from the Temple of the Owls (fig. 384).

On the border of Disk A from the Cenote, Lothrop (1952, p. 33) identifies the first complete glyph as "perhaps" that of "Saturn" (fig. 298,*c*).

Tula. Here there seems little doubt but what the "Saturn" sign (fig. 561), whatever it may mean, is recognized as the top, the middle, and the bottom design on several of the square columns.[123]

YEAR SYMBOL. *General distribution.* Just as we have found that throughout Middle America the god Tlaloc appeared on monuments dating from the Great period in the south to the Aztec in the north, so we find the imbricated year sign similarly distributed. There is, perhaps, no other symbol so common over the whole region. The year sign very often appears as a head ornament for the rain god.[124]

Classic stage. The year sign is found with Tlaloc at Copan (fig. 301), on Lintel 8 at Yaxchilan, and on Stelae 7 [125] and 9 at Piedras Negras.

In the corresponding era at Teotihuacan, the symbol appears on clay plaques. Beyer (in Gamio, 1922, 1: 284) shows it engraved on shell. In the Yucatan-Maya site of Uxmal there are at least five excellent examples of this design, two of which have been given.

Chichen. In the corresponding period here, the same year sign (fig. 302) appears on the Monjas in the upper cornice of the frieze on the east façade, above the "saw-toothed zigzag band." In the Toltec periods this symbol is much less common than the face of Tlaloc. On Mausoleum III, at least twice, the sign is noted in connection with the "binding up of the years." One of these (fig. 297) has already been noted; another (fig. 313) will be described presently. On the Temple of the Warriors the sign (fig. 303) appears on a column, directly above a headdress exactly similar to that on an Aztec figurine (fig. 304). It also is found on the drum of a column of Str. 2C10.

Tula. There is a famous stone figure here (fig. 187) with crossed hands with the sign above the headband. This is essentially similar to that in figure 303. There is also a fragment of a bas-relief from a ball court at Tula (fig. 305) with the same sign, also worn as a head ornament. A third example is on a full-length stone figure, expressing speech (fig. 306).

Puebla. Here, among other sites, the symbol (fig. 307) is noted at Jalapazco, once again in connection with Tlaloc.

Morelos. On the frieze at Xochicalco one of the seated figures carries the sign on his headdress (fig. 308).

Valley of Mexico. At Xico, Chalco, a woman wears it as a headdress; one is noted on a stone vessel from Chalco (Seler, 2: 160–61). A monolith at Tenango, Toluca, shows the same sign twice (fig. 309), each with a day and number. At Las Escalerillas the design is also found (Seler, 2:871).

On an Aztec wooden *atlatl* there is an excellent portrayal of a Tlaloc with the year sign above (Saville, 1928, pl. 7).

In the Codex Kingsborough the year sign appears in a square of jade mosaic.

Veracruz. At Teayo are many examples of the year symbol (fig. 310).

Oaxaca. One of many examples from this region is a year sign on a jade in the Heye Museum. It also appears on a Mitla fresco (fig. 311) and on a Mixtec gold pectoral from Monte Alban (Caso, 1932a, p. 508).

Codices. The sign is common in most of the Toltec, Mixtec, Cuicatec, and Aztec manuscripts. The symbol for the year usually shown in Aztec and Mixtec manuscripts is given in figure 312. The second one reads "6 Coatl (serpent) in the year 12 Tochtli (rabbit)." Caso (1928a, fig. 22) gives some of these designs and (in his fig. 21) the other year sign which appears on the Zapotec stelae.

THE 52-YEAR BUNDLE. The Aztec word *xiuhmolpilli* is usually given to a cylindrical stone, a copy of a circular bundle of reeds tied together near the ends. This represents the fastening together of 52 years or a cycle (4×13 years), as already explained. In 1900 Batres (1902) discovered in the Calle de las Escalerillas, Mexico City, two of these year bundles partially enclosed in a stone altar decorated with alternating skulls and crossbones along with a more elaborate monument of the same type. This type of altar or *tzompantli* is discussed under the Jaguar-Eagle cult.[126]

Chichen. Mausoleum III is a tribune with a stairway on each of the four sides. Among other designs on the face of this platform is the one shown with the "plaited tape" design (fig. 313) below the usual year sign. There is little doubt but what this represents a *xiuhmolpilli,* the binding up of the cycle of 52 years. On another side, the tape motif appears without the year sign. This is one of a group of three designs (Seler, 5:367) with the Jaguar-Eagle-Bird monster in the center and to the right a more elaborate braid (fig. 297) with star, year sign, and eight circles. This has already been explained as the binding up of 8×52 years.[127]

71. "MONSTERS": MASKS

The epithet "monster" has often been casually applied to figures composed of various combinations of god, man, and beast. Spinden has applied this term, as well as "composite monster," "dragon," or "two-headed dragon," and (with Maudslay) "serpent bird" or "serpent bird with reptilian features" to these composite figures. Most of their examples refer to Classic times. In many cases these are often associated with the band of planetary symbols which have already been discussed. Other types, such as the bacabs, are also connected with the heavens. The underworld and its entrance are represented by still other monsters.

JAGUAR-SERPENT-BIRD. This beast is seen at Chichen, Tula, and other sites, dated principally in Mexican times. It has been variously named. Marquina calls it "a man-bird-serpent, typical of the Toltec period." Table 13 shows the distribution of this monster at Chichen and Tula.

The general characteristics are a human face, with nose bead or other ornament, within the open jaw of a serpentine creature, which has two eyes, double noseplugs, ear ornaments, and a bifurcated tongue [128] hanging out of his open mouth. His forearms are usually human but end in jaguar claws. From the head and arms grow feathers, usually of the quetzal. Teeth are sometimes in the upper jaw of the composite creature, less rarely in the lower one.

Chichen. The Jaguar-Serpent-Bird is one of the most finished of all designs in bas-relief here. It appears in the Temple of the Jaguars on either side of the short stairway. In the Lower Temple it is at the end of the north and south walls under the figure of a Maya (fig. 314). It is used several times in panels on Mausoleum III (fig. 315). Here the figure is called Quetzalcoatl-Kukulcan by Seler (5:367).[129]

In the North Temple of the Great Ball Court at the top of each balustrade of the main stairway, the monster occurs above a tree (fig. 184) and also over both trees on each of the two columns.

A variant of the monster occurs on separate panels on the outer walls of the Temple of the Warriors (fig. 316). Here the jaws of the serpent, the tongue, and the head are carved almost in the round. The remainder of the design, the feathers and the forepaws, are in low relief.

The minor figures at the top and bottom of pillars, pilasters, and jambs have already been mentioned. The most common is this Jaguar-Serpent-Bird which is seen (with only one exception—its appearance above the trees—just mentioned) below the main figure. Its slight variation is illustrated in figure 317 which shows the figure at the bottom of the four sides of Column 6 in the Temple of the Warriors. It occurs almost 500 times in connection with the top figure of sun disk, the atlantean bacab, or a mask (Table 11). It is obvious that when the sun disk occurs with it, as in the Temple of the Warriors and its Colonnade, the former refers to heaven and the latter to the underworld.

With the exception of its appearance at the bottom of the six pillars of the South Temple of the Great Ball Court (fig. 318), it is most often found in structures associated with Chichen III, especially with the sun symbol on the Temple of the Warriors and its Colonnade. It is also seen in the Northeast Colonnade (fig. 319) and on Str. 2C3 (fig. 320) with the mask, and with the atlantean bacab on the North Colonnade. In many instances (Strs. 2C10, 5C15, etc.) the record is incomplete regarding the accompanying upper figure.

The second most common superior decoration accompanying the Jaguar-Serpent-Bird at the bottom of the column is the so-called atlantean Maya bacab, as the top design. In Str. 4B1 there are four examples, on the north and south sides of the two columns, of a type of reclining atlantean with one arm upraised and the other resting on the ground (fig. 69). This is essentially the same figure as those in the lower border of the Temple of the Jaguars fresco. The east and west sides have the Jaguar-Serpent-Bird.

Tula. The Jaguar-Serpent-Bird is the only one of the figures just described which is noted at this site. The divisions of the faces of the columns here are unlike those at Chichen. On the main temple, below the procession of jaguars and other animals

and between pairs of eagles or vultures, the Jaguar-Eagle-Bird appears (fig. 322). A design very much like that on the South Temple at Chichen is noted in figure 321. Another (fig. 323) shows essentially the same monster. A third (fig. 324) is said to be from Tula.

Huasteca. Shell ornaments have been found in burial mounds in this area; likewise a mural on an altar at Tamuin in San Luis Potosi. Deities have been recognized in the shell designs by Beyer (1933). In the fresco Du Solier (1946, fig. 7) recognized Xolotl in the character of Venus. Moedano thinks this figure is similar to the Jaguar-Serpent-Bird at Chichen and at Tula, and identifies it with Tlauizcalpantecutli. Toscano regards the figure at Tamuin as similar to the famous stone from Tepetzintla Tuxpan. Thus, notes Du Solier, the sculpture from Tula, Chichen, Tepetzintla, and Tamuin all belong to a contemporaneous ideology.

Tajin. A panel in the lesser Ball Court (fig. 325) may also belong here, as pointed out by E. Spinden.

Valley of Mexico. A simplified form of this monster is noted on a tile from Texcoco (fig. 326).

Monster with bifurcated tongue. A simplification of the Jaguar-Serpent-Bird is widely distributed in time and place (Lothrop, 1952, p. 69).

Classic stage. Among several examples are two from Piedras Negras (fig. 327), the latter with the year symbol above what seem to be two noseplugs.[130] There is a Maya jade with much the same design (fig. 328). Another type of mask is on a jade from Chiapas, "Ocosingo type" (fig. 329).

Chichen. This type of forked tongue has been shown on the Jaguar-Serpent-Bird, both in low relief on a single stone and where the tongue, jaws, and enclosed human head are of separate stones and carved in the round, as on the façade of the Temple of the Warriors and its Colonnade.

A more simple form of the Jaguar-Serpent-Bird is widely distributed in time and place. The jaguar claws are absent, as are most of the feathers; but we see the face in the open jaws below the two eyes of the creature, and the bifurcated tongue.

Valley of Mexico. The head of a complete figure engraved on an onyx tablet from Chalco is shown in figure 330. The feathers, the double noseplugs, and the nose ornament carry over from the type just described. The same type is noted in figure 331, a design "on a green stone from Texcoco." The Aztec serpent is very commonly shown with a forked tongue.

Morelos. In the neighborhood of Xochicalco, Seler found a stone relief of a standing figure which he calls the "water goddess" (fig. 332). It fulfills several of the criteria which are associated here with the face in the jaw of a monster and the forked tongue.

Oaxaca. On the urns (fig. 333) the double tongue is very common, especially on those representing the rain god.

Mask panel. *Classic stage.* From the period of the stucco-covered pyramid of Str. E-VII *sub* at Uaxactun, which has perhaps the earliest elaborate decoration on a monument in the Maya area, the mask design has flourished through this early era, continuing in the late Classic in the south. It reached its highest development in the Rio Bec and Los Chenes where the entire façade often formed a great mask. In the Yucatan-Maya sites, especially in the Puuc and Uxmal, the mask was the most important single façade decoration. It is made up of fairly stable elements assembled together into a grotesque mosaic face.[131]

Chichen. The buildings dating from the Yucatan-Maya period, especially the Monjas, the Iglesia, the Casa Colorada on the flying façade, and the Temple of the Three Lintels, have excellent examples of this mosaic mask panel. At the Caracol a mask is above each of the four doorways.

In the Mexican periods the typical mosaic mask is infrequently found. The best examples are on the Temple of the Warriors, where there are three superimposed masks at each corner, a tier of three each at either side of the entrance, and one in the center of each of the other three sides. Somewhat similar masks appear on the North Colonnade. In the Castillo a single mask is in the center of each of the four outside walls. The doorways on the east and west sides are not symmetrically placed. There are remains of pieces of masks on a building in the Northwest Group, in the Southeast Colonnade, and in the Temple of the Little Tables (Seler, 5:305, 383). A nose only occurs in Str. 3E7; parts of a mask are found in Str. 2C1, Str. 2C4, and on the North Temple of the Chultun Group. A corner mask is reported on Str. 2C5; two, one above the other, on Str. 3D6. Several examples of the two side frets of masks with figure between are found in the debris of the Temple of the Owls (fig. 334) and in the court to the south of the House of the Phalli. There are no typical mask panels on any of the structures connected with the Ball Court.

Mask monster. We now come to the class of mask already mentioned in connection with columnar decoration. It is usually not a mosaic made up of separate units (some of which are carved in the round), but a design on a single stone, generally in bas-relief.[132] This kind of mask figure has no head in an open jaw but consists of a masklike face, usually with two drooping, rather than upright noseplugs, elaborate ear ornaments, and, often, both upper and lower teeth with lateral fangs. At the top there is also a design.

Chichen. We have seen that the usual place of this mask is as a minor figure on column, jamb, or pilaster. In general when the mask occupies this position, there is an overlapping feather-like element at the top, in the center of which is a small face, possibly representing the sun, a star, or a rosette. The upper design on a drum from the mask in the South Temple illustrates this (fig. 335). The best examples are the upper and lower masks on the jambs and pilasters of the Temple of the Jaguars (fig. 336) and on the jambs of the North Temple (fig. 337). At the top of both balustrades of the northwest stairway of this structure and on the east balustrade of the northeast stairs is a mask. On the west side the design seems to show a bird and a death's-head.

In the Lower Temple of the Jaguars, the mask appears in the center of the design on the lower border on both the north and the south walls in connection with lotus and fish (fig. 338).

Most of the structures exhibiting the mask belong to Group A. The design is beautifully worked out in a style and finish which is for the most part in contrast to that on the same mask on buildings assigned to the later Group B, now to be considered

The Mercado masks (fig. 339) at the top and bottom of the six faces of the two pilasters are essentially the same as those of the Temple of the Jaguars, except for the double tongue. A much cruder type of work is on the masks (fig. 340) in the lower and possibly the upper positions on the jambs and columns of the Temple of the Xtoloc Cenote. The same decadence is noted on the upper and lower designs (fig. 341) on the pilasters of the Temple of the Chac Mool. The headband here, as well as in

that of the previous masks, takes on the appearance of a mosaic of beads.

The two columns of the mismated drums in Str. 2C3 have been noted. In the reassembled pillars, each face often has three masks with the long drooping noseplugs (fig. 342). In two out of the three cases, the mask is usually shown upside down.

The crudest of all masks seems to be the one in the upper position on the columns of the Northeast Colonnade (fig. 343).

Grotesque masks appear as border ornaments on some of the disks from the Sacred Cenote, as two profile masks sharing the same noseplug (fig. 344,*a,b*) and as a single head in profile (fig. 344,*c*).

Other masks at Chichen. There are at Chichen at least three other variations of the mask worthy of comment. Only the first of these, already described, seems to be found outside of this site.

Mask with vine coming from eyes. In the Lower Temple of the Jaguars, at the bottom of each of the four sides on the two columns, such a mask is seen (fig. 345). This design epitomizes the underworld with the lotus and fish, already considered, the turtle and the pelican, together with the death crosses on the forehead. It should be noted that on all eight faces of the columns the tail of an undulating serpent (fig. 196), behind each of the Maya atlantean figures above, protrudes into the mask design below which represents the underworld.

The same type of mask (fig. 270) is in the center of two of the faces of the wooden lintel of the Temple of the Jaguars.[133] It may well be that this and some of the other masks we have considered are representations of the Maya earth monster, in contrast to the Mexican types to be discussed presently. The Jaguar-Serpent-Bird would not qualify in the Maya group because its distribution is mainly outside Central America.

Mask with the three human figures. This type of decoration is seen only at Chichen. It is the top design (fig. 346) on the four faces of the two columns (just mentioned) of the Lower Temple of the Jaguars. Above and at either side of the actual mask is a human figure grasping a kind of vine on which may be corn. A lotus is also seen.

Mask with addition of crosses. In the Mexican period at Chichen, on most of the structures just noted, masks have a fairly typical decoration of small crosses and dots, above, on either side of, or below the eyeball. In the Castillo one mask has a cross and two dots on the eyelids, another has two crosses and a dot between (Seler, 5:256–57). In the Temple of the Little Tables, a mask has two crosses and a circle between on the eyelid and, below the eye, two crosses (Seler, 5:383). In the Temples of the Warriors and the Little Tables, in addition to the eye elaboration, the crosses and dots decorate each side of the projecting nose (Morris, 1931, fig. 289).

The same decoration is on the Jaguar-Serpent-Bird on Mausoleum III (fig. 315); on the upper and lower masks (already described) on the columns (figs. 345, 346) and on the lower wall of the Lower Temple of the Jaguars (fig. 338); and at the base of one of the pilasters of the North Temple of the Ball Court (fig. 337).

The so-called "maggot" sign for death (fig. 193,*b*) sometimes approximates a cross. This is also seen on the face on the glyph for 10. It is possible that this design on masks of Mexican Chichen, especially on one of the Jaguar-Serpent-Bird and on one associated with fish and lotus, may indicate death and the other world in connection with the Jaguar-Eagle cult.[134]

There is an interesting association of this sign with the lotus on the central panel depicting sacrifice, on the east side of the Ball Court bench here. The leader, behind the beheaded victim, has a speech-scroll decorated with "maggot" signs and circles. From the neck of the victim emerge six serpents and a vine probably with lotus (Proskouriakoff, 1950, fig. 106,*c*).

Mask over the face. This is by no means an uncommon feature in all periods of Maya history. The best example is the jade mosaic mask found over the face of the "warrior-king" in his tomb at Palenque. As worn by Maya, they are described in Chapter IV-2.

Chichen. Mosaic-like masks are worn by two of the Maya in the Lower Temple of the Jaguars procession (figs. 612, 622). The mask which covers much of the face, excepting the mouth, of several personages seems best brought out on the seated Maya on the south bench of the Temple of the Chac Mool (considered later). In the Temple of the Jaguar Atlantean Columns (Str. 5B21) the personages on the columns and pilasters wear jaguar masks, as already noted. Another variety of mask, which seems to have a wider distribution, shows two eyes and the open jaws of a serpent, with the lines of the inside of the upper one clearly shown. This type is discussed with serpent fauces in Chapter III-7c1.

Tulum. In Temple 1 there is an excellent head and arms in fresco. The figure wears a very elaborate turquoise, jade, and shell mask (Fernandez, 1941).

Other masks. *Southern Veracruz.* There is a mask monster, very different from that at Chichen, more nearly like the one seen in the southern and central Maya area. It is probably earlier than those we have been discussing. A mask design is at the bottom of Stelae 3, 8, and 13 at Cerro de las Mesas and on Stelae A and D at Tres Zapotes. A mask from each of these two places forms part of an elaborate diagram of "the evolution of the mask" from "a pure type" at La Venta, according to Covarrubias (1946, p. 169).

Jaguars appear on monuments at La Venta and at Izapa in Chiapas on the Guatemalan border. There is a similarity between the seated figure on Stela 4 at Cerro de las Mesas and that on Monument 9 at Santa Lucia Cotzumalhuapa (Stirling, 1943, pl. 22,*a;* figs. 3, 4, 8, 10,*a*, 11,*c*, 12,*c*, 14).

Drucker (1952, p. 223) calls attention to a stone figure in relief shown by Thompson (1943c, p. 111,*a*) from San Isidro, in southeastern Quezaltenango, Guatemala, "wearing a jaguar mask that would not look very out of place on a monument of La Venta itself." Drucker (1952, p. 224) considers that "an unmistakable derivative of the jaguar-monster motif" is seen in Shook's (1945) Miraflores material from Finca Arizona.

Tula. This site is singularly lacking in masks. A re-used stone (fig. 347) was found during excavation of the main temple. The bas-relief "reminds one of the 'Totonac' of Tajin," writes Acosta (1944, p. 130). The design is difficult to interpret. Fundamentally it seems to be a grotesque mask in profile with two ornaments arising from the nose. Behind is apparently another mask. From the mouth, which shows some teeth, there descends a jaguar. On one side near the "eye" are "celestial elements, crossed fillets" which we have called the "maggot" sign. This is one of the very few designs at Tula which seems to have no parallel at Chichen.

Mexican earth monster. The gods associated with the underworld, both Maya and Mexican, such as the earth monsters, are part of a labyrinth of beliefs. A fairly common type of

representation shows the entrance to the lower regions and those who are passing through. In most cases this depiction belongs in late times and appears mainly in the Mexican manuscripts. It does not seem to be common at Chichen, even in the periods that concern us here.

Entrance to the other world. We are primarily interested in the general consistency of the representations of the god of many names through whose body or mouth entrance to the world below could be accomplished: [135] the Jaguar-Serpent-Bird, and most of the masks both with and without the "maggot" sign of death.

The guardian to the entrance of this underworld domain is the "Señor de la Tierra," Tlaltecutli. Among his names and synonyms are Earth Dragon, Crocodile, Toad, Earth Swallower, Earth Monster, Throat of the Earth, the god Mictlantecutli of the Infernal Regions, the god Tlalchitonatiuh, the god Tepeyollotl, the Heart of the Mountains and of the Underworld, and other "Lords of the Night." Some of these have already been described. The relation of this group to the Jaguar-Eagle cult is discussed later.

The Jaguar-Serpent-Bird was found at Chichen and Tula, the mask monster only at Chichen; but the earth monster occurs in Toltec, Mixtec, and Aztec manuscripts and occasionally on pottery and on the later monuments. The Maya codices contribute a type of monster probably belonging here. In addition to the gold disks from the Sacred Cenote, Chichen shows two examples. In many cases no sharp differentiations can be made between types of these grotesque creatures.

This earth monster, or "Swallower," may most often be looked for at the base of a composition, as the lowest design on a column or on the bottom of a *quauhxicalli* or blood box. This creature with an open jaw, into which is disappearing a flint knife, representing death, is easily recognized. The most common characteristics are the two eyes and the lines of teeth pointing upwards. He is shown either with hands and feet (fig. 348) or just the head (fig. 349). A more conventionalized rendering is from the bottom of a *quauhxicalli* (fig. 350).[136]

The most elaborate of the pictures of the earth monster are often found on the bottom of these "eagle boxes." Three of them are very much alike: that on the box in Vienna (Seler, 2: 713), in Berlin (2:709), and in Hamburg (2:735). The last is almost identical with the earth monster (fig. 351) on the first platform of the Teocalli de la Guerra Sagrada, which has the open jaw with teeth. The four claws and the joints of the lower limbs show the symbol of death with a skull as a belt ornament. At the base of the design on the famous Tizoc stone (fig. 352) only the teeth and the two eyes remain of the figure of the underworld with star signs and rays running along the top of the pairs of figures. A "throat" still simpler than that on the Tizoc stone is on the famous monument showing Tizoc and Ahuitzotl cutting their ears as a sacrifice above the date 8 Cane (1487). The same design (fig. 353) is engraved on a femur in the National Museum, showing a flint knife being swallowed.

Ruler of the sixteenth week. At this place in the *tonalpohualli* in many of the manuscripts we see a consistent picture. The chief personage is Xolotl, the god of twins, on a jaguar-skin seat. Opposite is Tlalchitonatiuh, "the sun entering the jaws of death." In the Aubin (fig. 354), Telleriano Remensis (fig. 355), and the Borbonicus (fig. 356) there is a head, usually that of Tlaloc, associated with the sun, entering the jaws of the earth monster. On the face of the famous Bilimec vase from Vienna (fig. 357) the sun disk is at the top above the death's-head; the entrance to the underworld is below, with the date 1 Rabbit, the day when the earth was created.

Ruler of the sixth week. At this time Tezcatlipoca and Tonatiuh, the sun god, are the rulers. The earth jaw, as seen in the Aubin, appears here (fig. 358), paralleled in the Borbonicus (fig. 359). In each case, presumably a dog is tied to a tree beside the jaw of the monster into which, in the second codex, another animal is about to disappear. In the Aubin, the creature has already gone below, his rope alone showing. These pictures probably indicate the function of the dog which was to lead the sun and the dead to the underworld.

Death and the underworld. Now we consider the dead entering the horrendous jaws. In the Laud, a male and a female figure of the dead (fig. 360) are conducting a youth into the jaws of the world below. In the Borgia, the figure enters the underworld through a skull (fig. 361) and later a body (fig. 362) and a mummy bundle (fig. 363) enter the world below. The head of a sacrificed person and his wrapped body appear in the Fejervary-Mayer (fig. 364); in Vaticanus B (fig. 365) the body falls into the throat of death, represented as a *tecpatl* or stone knife. Mictlantecutli, from Vaticanus B (fig. 366), is digging a grave in the earth. To the right a mummy bundle rests in the jaws of death. In the Nuttall (fig. 367) 8 Eecatl, in the guise of an eagle, descends into the underworld. The last is highly conventionalized but the mouth and the two eyes are still present.

Mictlantecutli and Quetzalcoatl-Eecatl. The lords of death and of life are frequently paired in the manuscripts, shown seated on the entrance to the underworld. The consistency of these representations with the eyes and the teeth is seen here where only the jaws, serving as cushions, are given. In the Borgia the cushion representing the face and jaws of the underworld is shown in figure 368. On this, Death is seated alone with Eecatl; a sun disk is opposite. Parallel pictures are found in Vaticanus B 76 and in the Borgia, which shows a more elaborate rendering of the cushion with its open jaws (fig. 369). On both, a single figure, with a double head of Death and Eecatl, is seated at the entrance to the abode of death. In the Borgia the moon and starry sky float above a jaguar holding an eagle's body in one hand and its head in the other; below, an eagle's head (fig. 370) sinks into the jaws of the earth monster.

Death and the warrior. Sometimes a single warrior (fig. 371), as in the Bologna, sits on the jaws of the underworld; 7 Olin, from the Nuttall (fig. 372), shows this. Both carry *atlatl* and shield.

Other appearances. A few other examples of the earth monster will be noted. A stone in the National Museum (fig. 373) called "La Chinola" and found near Teayo, Veracruz, is said to be the water goddess. She seems to be disappearing into the jaws of the earth. The same design, with the eyes, the open jaws, and the teeth, is one of the members of a Monte Alban jewel (fig. 374), along with a sun disk and a ball court. This creature's mouth is opening downwards.

Five regions of the world. One of the best-known parallels in the Maya and the Toltec manuscripts is Fejervary-Mayer 1 and Madrid 75–76. In the former, four regions are shown by trees, one tree coming from a sun disk, another (fig. 375) from the earth monster. Parallels with trees on the columns of the North Temple at Chichen and at Palenque have been suggested.

MAYA EARTH MONSTER. The full-face open jaw of death, seen in the earth monster, is very seldom found in the Maya area.

A suggestion has already been made that some of the masks, especially the one with the vine coming from the eyes, may represent a Maya type of underworld god. At Chuitinamit, Guatemala, this type of beast (fig. 376) is shown in two stone carvings. Lothrop (1933, p. 84) regards this as a roof ornament, representing the earth monster. He calls attention to similar designs on Costa Rican pottery (fig. 377).

HEAD IN PROFILE. It is possible that, in the late Maya periods, the substitute for the full-face and two-eyed type of beast of the nether regions is a monster whose head appears in profile.

Codices. In the Paris (fig. 378) the reptile is about to consume a glyph which represents the sun, possibly to show that night is coming on. In the Dresden (fig. 379) God B with an Ahau sign upside down on his breast, sits on a kind of tree whose roots are a demon in profile. In the Madrid (fig. 380) the same god is sitting on the open jaws of a monster. In the Dresden (fig. 381) God B, with a jaguar helmet, spear, and shield, is a warrior sitting on the jaws of a snake. Farther on (fig. 382) B has another weapon. In the Paris (fig. 383) God C rests on a creature showing two eyes.

Chichen. On a painted capstone (fig. 384), formerly in the Temple of the Owls at Chichen, the long-nosed god is coming from or going into the mouth of a snake shown in profile. Around the creature there seem to be, on three sides, sun border rays with a band of glyphs at the top and a constellation band on either side. The god has a bowl of some offering.

In the Temple of the Jaguars fresco, on the east wall just left of the "red hills," a serpent is coiled in exactly the same way as that just described; a Toltec warrior stands in the open jaws.

In the Fejervary-Mayer (fig. 385) the snake resembles those just noted. Here from the "feather snake" emerges a rabbit which is about to be devoured by an eagle. The same scene is in Borgia 52 and Vaticanus B 27. The meaning is not clear but the depiction of the serpent is very similar to the one shown on the Chichen capstone. On drums of columns found on the terrace of the North Colonnade are several examples of a grotesque mask in profile (fig. 386) showing a line of sharp teeth.

A monster in profile seems to represent the first Aztec day, Cipactli, associated with the earth and fertility. It is found masked by the roots of the four trees on the round pillars of the North Temple of the Ball Court (fig. 184), and at the base of a similar tree on each of the balustrades of the three stairways connected with this structure. An almost identical form of monster is associated with a Toltec (fig. 185) in the Lower Temple of the Jaguars.

In the Temple of the Warriors fresco there seem to be the open jaws of the serpent (fig. 387).

There is considerable variety of monster on the gold plaques from the Sacred Cenote. The one most like those we have been considering is on two disks where an eagle is attacking a Maya. Beneath an open mouth is clearly the monster at the entrance to the other world. In Disk L (fig. 437) the arms of the creature seem to be supporting the world above. The lowest position in the disk designs is usually occupied by a creature in profile (fig. 388), only the upper jaw with the teeth ordinarily being shown. Two have noseplugs; three have a human head above the nose like others in the scrolls on some of the borders (Lothrop, 1952, fig. 13). Lothrop (1952, p. 36, fig. 17) points out the similarity of some of the heads to one on Stela 10 at Seibal, which is on the upper jaw of a monster whose open mouth comes out of the end of a ceremonial bar or box carried by the figure on the monument.[137] The prototypes of all these Sacred Cenote monsters are found in very late Classic times.

8. HUMAN SACRIFICE

This section is devoted to the offering of human beings to the deities as depicted in relief, in fresco, and in the manuscripts.[138]

Classic stage. There is a distinct inclination among some writers to question the existence of human sacrifice in the Maya area until its introduction, according to legend, by the intrusive Mexicans. The evidence of its presence in the Great period is so meager that it does not seem to have been a common practice in this early time.

Associated with the tomb hidden under the Palace of the Inscriptions at Palenque were the remains of six human beings whose bones were crowded into a stone receptacle placed before the entrance to the tomb. There seems no doubt but what they had been put to death on the burial of the ruler or priest whose skeleton was found in the stone sarcophagus.

At Piedras Negras an actual sacrifice is portrayed on Stela 11 (fig. 389,*a*) dated 9.15.0.0.0 (A.D. 731). The same rite is less clearly shown on Stela 14 (fig. 389,*b*). The flamelike feathered object coming from the breast of the two victims is, presumably, the heart. A particular scene is repeated on four stelae here: Stela 25 (A.D. 608), Stela 6 (A.D. 687), Stela 14 (A.D. 766?), and Stela 12 (A.D. 795). Seated in a niche is what is undoubtedly a god, in high relief. On Stela 14 a skirted figure worships this deity. Below the niche a ladder-like trellis leads up to him. Sky monsters are at the very top; constellation bands are at the side of the figure in a few cases.

On the fresco in Room 3 at Bonampak are nine unclad captives, one of whom seems to be dead, together with what is apparently a severed head. They all rest on the steps of a tribune, on top of which some conference is evidently taking place.

Altar 5 at Tikal (fig. 390) shows two figures at either side of a pile of human bones on which rests a human skull. This in itself is not necessarily proof of human sacrifice. In the basreliefs there are trophy heads which may be those of captives killed in battle. Some claim that the prisoners on Lintel 12 at Yaxchilan (fig. 391) and on Stela 12 at Piedras Negras are prospective victims of sacrifice.[139] There are interesting examples of trophy heads as possible amulets. Five are part of a neck ornament on Lintel 9 at Yaxchilan (Proskouriakoff, 1950, fig. 22,*y*); four are on the shoulder cape on Stela 18 at Etzna. On the fresco at Bonampak three heads hang from the neck of a figure with rattle and trumpet decorated with crossbones (fig. 190). One is suspended by a necklace on a figure on a Oaxaca urn (Caso and Bernal, 1952, p. 162).

That immolation is common only in the later periods of Maya history is shown in the Mexican epoch and in the Maya codices.

Early accounts. In the description of the Aztec of Mexico the abundant literature and many illustrations of offerings of men and women to the gods are well known and will not be repeated here. A comparatively unknown account comes from Tomás López Medel (Tozzer, 1941, p. 222):

> The other sacrifices of men captured and compelled to it by force were so many in number, especially in Mexico, that each year, it is painful to state, some Indians affirm that more than fifty thousand were killed each year. And those who were present at the taking of

Mexico say that the sacrifice was so great and continuous in those days when the Indians were besieged and most hemmed in in Mexico that when Hernando Cortés and the Spaniards took the city, going to Tateluco [Tlaltelolco], which was their principal temple, they were unable to enter a retired room where the sacrifice was performed on account of the great amount of human blood they found shed there. . . .

In Chapter II-5 it is suggested that idolatry and human sacrifice may be linked together in connection with the coming of the Itza and Kukulcan. Such association is brought out in some of the early references.

Chichen. Human sacrifice is represented in structures assigned to Chichen II and III. As in Mexican depictions, the nude victim rests on his back on a kind of altar and is held by two or four men, called chacs. A priest, called a nacom, leans over and removes the heart through an incision made with a stone knife.

The best example is on Disk H from the Sacred Cenote (fig. 393). Here the victim is thrown over a stone, his arms and legs held by four Toltec chacs; the nacom, wearing a bird helmet and talking or praying, has already cut out the victim's heart with a stone knife. Another individual at the side, held by a Toltec, is about to suffer the same treatment; there is a mark on his cheek and he is talking. At the left stands a Toltec warrior.

The same ritual is seen at least twice on the Temple of the Jaguars frescoes. The first (fig. 392), on the south vault, was found and copied by Breton. Only two chacs hold this victim; the priest, with blackened body, wears a feather headdress. An elaborately feathered serpent is at the back, the tail reaching the stone of sacrifice. An elaborate speechlike tongue comes from his open jaws. The second example (fig. 394) is taken from an inaccurate drawing by Le Plongeon; it is partially shown by Maudslay (1889–1902, vol. 3, pl. 59). The sacrificer has already carried out his duties, while three other victims await the ordeal. The feathered serpent is present.

Another and much later sacrifice is that on the frescoes of the Temple of the Warriors (fig. 395). This is in the outer room to the right of the door leading into the shrine. To the left of this entrance is a battle scene, where the victim is again held by two chacs. The priest, whose body is again painted black, seems to have a curved weapon instead of a knife. Part of the undulating rattlesnake rolls over the sacrificial stone. The rite evidently takes place before a temple decorated with a line of "spools." Victims who may have suffered this immolation are shown in other frescoes here (Morris, 1931, pl. 144,*a*,*b*).[140]

In the scenes just noted in the Temple of the Jaguars and in the Temple of the Warriors, a tortuous serpent rises from the stone of sacrifice in much the same way as does the reptile behind the small altar in the center of the Lower Temple of the Jaguars bas-relief. Could it be that, in the latter place, the first scene leads to the sacrifice of the neighboring figure who, it has been suggested, may be a ball-player? This type of person is decapitated in the bench bas-relief.

The vertical sinuous serpent is found with the group of three individuals in the center of the dais of the Mercado. It has already been pointed out that the top figure may be an executioner and the lower two the victims.

Attention is called especially to two groups, among several, on the southwest wall of the Temple of the Jaguars (one is shown in fig. 396). In each scene is a circular object associated with banners and canopies which Seler thinks denote a sacrificial stone and a "sanctuary or place of worship." In the group shown here a Toltec is attended by a feathered serpent, the frequent accompaniment of human sacrifice. Seated before him is an unclad figure giving the sign of "surrender," possibly a future victim. The same circular object and a canopy (fig. 398) appear beside the scene of actual sacrifice in the south vault of this chamber. To the left of the stone are two figures with darkish bodies: one, a Toltec, has the curved weapon; each leads a nude victim awaiting sacrifice. Associated with the group is a flaming (?) jaguar.

On the north and the northwest walls is a canopy but no visible stone. There are, however, waiting figures. On the east wall there is a canopy in connection with a black-painted person who carries a curved stick similar to that wielded by the priest who makes the sacrifice in the Temple of the Warriors. A possible candidate for immolation stands at one side. Thus, in addition to the actual sacrifice shown twice on these frescoes, there are three examples of the "sacrificial stones" with canopy, priest, and victims, and three more with the standard who are probably candidates for sacrifice.

On the frescoes and lintel, there are at least seven representations of a sun disk. With jaguars inside and on the façades of the building, it may be that here is the Jaguar-Eagle cult in its association with human sacrifice.

Depicted on the bench of the ball court (Str. 3D4) near the Mercado are captives held by the hair. This may be connected with a sacrifice (Ruppert, 1952, fig. 129,*c*,*d*).

A flat circular jade piece from the Sacred Cenote shows a Maya whose heart has been removed by a Toltec (fig. 397).

Decapitation with the sacrificer holding the head of the victim is repeated on each of the six panels of the Great Ball Court (fig. 474), and also on a similar place on the court behind the Monjas. On the North Temple of the Great Ball Court are several newly recognized evidences of sacrifice. On the vault of the north wall a scene shows what looks like the beginning of sacrifice (Marquina, 1951, photo. 440,C). In front of a house lies the wrapped body of a victim, over which a priest leans with his knife (photo. 441,E); presumably another individual to be sacrificed waits in a neighboring house (photo. 441,D). Evidently a victim (*é*) lies at the base of a tree. On the east wall is a dead person, probably a Toltec (fig. 399), showing what may be the shell design of Quetzalcoatl. On the west wall, in the middle zone, a body rests between two men (Breton, 1917, pl. 4).

The supine figures with spotted skirt here on the north wall and at the base of the columns, as well as those in the Temple of the Jaguars, may conceivably be regarded as having suffered death by sacrifice.

On the north face of the sculptured dais in the Mercado gallery are two supine figures (fig. 598) who may have been sacrificed. There are other prospects waiting in line.

The severed head appears several times in encounters between Toltec and Maya on the Sacred Cenote disks. On Disk B a head, along with an arm, rests in a dish [141] in front of a Maya captive while a Maya apparently carries another head by the hair. On Disk C, behind another Maya prisoner, one holds not a head but part of a miniature figure. In the water scene (Disk G) the two Toltec in the center of the canoe each seem to have a trophy head hanging on his back.

On the exterior fresco of the Temple of the Warriors a human head appears at least twice (fig. 430). On the vault of the North Temple of the Ball Court, a head lies in a dish (Marquina, 1951, photo. 440). On a kneeling atlantean near the Southeast Colonnade there a head hangs from his belt (fig. 66). Two are shown on a chac mool from Tenochtitlan (fig. 75).

Some of the effigy bells (Veraguas style) from the Sacred Cenote may represent trophy heads. One (Lothrop, 1952, fig. 104,*d*) hangs upside down. Two trophy heads occur on the breastplate of a stone figure found on the road to Pisté (Seler, 5:384).

No mention is made here of human sacrifice as evidenced by hearts held in the claws of eagles.

Kabah. On the jambs of Str. 2C6 (Codz Poop) are warriors with *atlatl,* undoubtedly Toltec; in the lower panels are two victims probably destined for sacrifice (fig. 603).

Santa Rita. In the frescoes (Gann, 1900, pl. 31, no. 3) a figure holds a trophy head in each hand.

Cotzumalhuapa region. In the numerous sculptures here death is seen frequently. Many of the designs show a close relationship between the ball game and the cult of the Jaguar-Eagle. On Monument 4 at El Baul "around and under the priest, who wears the guise of the death god, lie four victims face upward and with bodies arched in the usual position of sacrifice" (Thompson, 1948, fig. 5,*a*). As at Chichen, priests and eagles hold human hearts in their hands or claws.

Tula. The cult of the Jaguar-Eagle is definitely recognizable here by representations of human hearts. We can therefore assume that human sacrifice was present, but no depiction of it has yet been reported.

Malinalco. The same may be said of this site.

Valley of Mexico. Although death and bloodletting are common on bas-reliefs here, as are numerous stone boxes to hold the hearts of sacrificial victims, actual immolation is rarely shown except in the manuscripts.

On the fresco at Tepantitla, which represents the paradise of Tlaloc, a figure is held by the arms and legs by four men as if about to be sacrificed (Caso, 1942).

Veracruz. The sacrifice shown on the ball-court panels at Tajin, apparently associated with both the game and the Jaguar-Eagle cult, will be considered later.

There are several examples of the so-called *palma,* loosely attributed to Totonac culture, which show individuals who have been or are being sacrificed. As the *palma* and the yoke are closely connected with the ball game, they are discussed in Chapter III-10.

Codices. In the Mexican manuscripts human sacrifice is shown very often (see especially Sahagun, Troncoso ed., V, 5, 6, *passim,* and Duran, Atlas). The most realistic is that in the Magliabecchiano (fig. 402), where one victim, with his heart removed, has already been thrown down the pyramid, as was the custom. Another sacrifice has just been completed, and the heart is "raised" before the temple to the sun. The flag or banner here has already received comment. The mummy bundle with its offering (fig. 403) and the sacrifice of the slave whose heart and blood are offered to the dead (fig. 404) also appear in the Magliabecchiano.

Another version of human sacrifice is in the Borgia (fig. 405). This takes place on a platform, the officiating priest holding the heart high. In the Bodleian, the rite has taken place in a pyramidal temple (fig. 406). A far simpler representation is in the Codex Porfirio Diaz (fig. 407). In Vaticanus A 54 is a very realistic picture of the rite with the victim held by four men. From the Nuttall is a Mixtec example (fig. 408).

Unlike the Mexican manuscripts, the three Maya codices rarely contain scenes of sacrifice. In Dresden 3 (fig. 400) a woman with arms and legs tied is thrown over an altar; a vulture perches on a tree growing out of her body and tears out her eye. In Dresden 34 a human head rests upon an altar.

In the Madrid (fig. 401) a human victim with a figure of death at the side lies on a sacrificial stone. The figure issuing from his body suggests a similar feature on the Piedras Negras stelae (fig. 389). The death god is on one side and possibly God F on the other.

Arrow sacrifice. By this common way of offering men to the gods the victim was bound to a scaffold (*tlacacaliliztli*) and his body shot full of arrows. There are many references to it and many illustrations. The only one so far found in the Maya area occurs in a graffito at Tikal (fig. 409).

Flaying. After death the body was sometimes flayed and the skin used as a costume for the god Xipe. Both arrow sacrifice and flaying were shared by the Mexicans and by the Maya, but as neither practice is reported at Chichen or at Tula, they are described in Chapter VI-5 (see Tozzer, 1941, p. 320).

9. JAGUAR-EAGLE (QUAUHTLI-OCELOTL) OR WARRIOR CULT

Aztec beliefs. Life after death and the character of the other world were regulated by a caste system, according to the Aztec. There was a heavenly paradise for some: warriors who were slain in battle, people who were sacrificed, traveling merchants who died on their journey, and women who died in childbirth, "thus sacrificing themselves in the bearing of potential warriors." To the second heaven, Tlalocan, "a terrestrial paradise" presided over by the Tlalocs, went the souls of those who were slain by lightning, those who died from certain diseases, and those whose end had to do with water. The underworld, Mictlan, was the future abode of most of the others.

Of the greatest importance in the religion of these people was the Jaguar-Eagle cult of Huitzilopochtli (with the corresponding order of the Ocelots, Knights of Tezcatlipoca).[142] The members wore the skin of the jaguar and the feathers of the eagle, and carried the insignia of their order on their shields and banners. The warriors were associated with the sun god, Tonatiuh, and were considered his servants. For mankind to live, the sun must cross the heavens daily and so must have sustenance consisting of human blood and hearts. To obtain this food, war was inevitable, a kind of religious crusade. Glory for the warriors was the capture of prisoners destined for sacrifice. The souls of the warriors and of those put to death were supposed to go to the eastern sky and conduct the sun to the zenith. Here he was then taken over by the souls of women who had died in childbirth and conducted to his home in the west, where the earth monster swallowed the stone knife or the light of day.

This Aztec belief seems to have been unknown among the Classic Maya and in the corresponding period at Teotihuacan. It is thought to have originated among the Toltec, and from their center at Tula (whether located in Hidalgo or in southern Mexico) spread southward to the Pacific slope of Guatemala, into Yucatan, especially to Chichen, and to Veracruz and other parts of central Mexico. Our knowledge of the cult is fairly

full as we have not only archæological and codical evidence but also early Spanish accounts.

TENOCHTITLAN AND CHICHEN. Sahagun (2,3; Bandelier, 1932, p. 147) lists and partially describes 78 "monuments" of the Great Temple of Mexico. On his famous plan of the central enclosure of Tenochtitlan (fig. 410) he shows 15 structures. It is worth noting how closely the plan of the ceremonial center fits the Jaguar-Eagle cult. The Ball Court (*teotlachtli*, A), "the divine game of ball," dominates the west end of the enclosure; beyond are the Skull Rack (*tzompantli*, B) for the heads of sacrificial victims, the Vessel of the Eagle Warriors (*quauhxicalli*, C), and the Main Temple (*teocalli*, D). Left of the court are the House of the Eagle Warriors (*quauhcalli*, E) and the House of the Priests (*calmecatl*, F); to the right are the Temple of Xipe (G) and the Stone of Gladiatorial Sacrifice (*temalacatl*, H).

A comparison of this arrangement of structures with the Toltec center at Chichen (fig. 1) shows a surprising similarity, as suggested by Krickeberg (1948, pp. 122–23; 1949, pp. 133–35). East of the Great Ball Court at Chichen is Mausoleum II, the Temple of the Skulls or the Tzompantli. Mausoleum I, the Platform of the Eagles, clearly corresponds to the Vessel of the Eagle Warriors; Mausoleum III, the Temple of the Cones, to the House of the Eagle Warriors; the Temple of the Warriors to the Great Temple.

Missing from Chichen are the priests' house, the Xipe temple, and the "disk-shaped stone" to which the war captive, doomed to sacrifice, was tied. Given only inadequate weapons with which to defend himself, he was attacked by opponents armed with sharp swords. This type of stone has never been found at Chichen and seems to be rare even in Mexico, unless some of the stone rings usually assigned to ball courts are such. The god Xipe is absent from the pantheon at Chichen. Sahagun's *ithualli*, the "temple court," used for dancing, could easily have been almost anywhere in the great plaza north of the Castillo.

Each of these structures at Chichen is directly connected, either by its frescoes or by its bas-reliefs, with the Warrior cult (the Castillo shows no trace of this ritual). With the exception of the Great Ball Court itself, most of the buildings connected with the ceremonies are assignable to Chichen III.

BALL COURT. The important feature in the ritual of the cult is the ball court or *teotlachtli*. Such a structure is found in most of the areas we are considering but not at Malinalco, where Krickeberg (1949) suggests that there was no room for it on the side of a hill. The ceremonies immediately connected with the court will be discussed in Chapter III-10.

HUMAN SACRIFICE. Immolation as practised in Middle America during Toltec and later times was taken up in the preceding section. At this point we are concerned with prisoners of war and other victims whose hearts, cut out with a stone knife, are dedicated and offered to the sun god as a rite in the warrior cult. The Aztec name for the person thus sacrificed is *quauhtecatl*, "the one from the eagle land." Everywhere except at Tula are scenes portraying a priest with a stone knife; often he is operating on the victim who has been thrown over an altar. That we have not found this at Tula may be due to the fact that up to the present time our knowledge of this great site is comparatively small and the bas-relief relatively rare.

At Chichen we see on the frescoes at the Temple of the Jaguars and the Temple of the Warriors scenes of both warfare and sacrifice. It is impossible to say if the purpose of the war was to obtain a victim for the accompanying sacrifice, but in each case the Toltec is victorious and the victim is probably a Maya.

On the six panels of the bench of the Great Ball Court, Toltec perform the sacrifice on Maya four times, Maya on the Toltec twice.

QUAUHXICALLI. The torn-out heart is called by the Aztec, *quauhnochtli*, "eagle cactus fruit." Representations of hearts from the Fejervary-Mayer Codex are shown in figure 411.

After the heart is raised toward the sun as an oblation or an offering of food, it is placed in a *quauhxicalli*, "eagle vessel," perhaps originally a wooden receptacle but generally round and of stone. Eagle feathers are incised on the outside, often with a line of hearts around the edge (fig. 412). On the bottom of the inside and also on the outside is often an earth monster (fig. 350). The Borbonicus has excellent examples of these bowls: in one blood is coming from the vessel (fig. 413); another has the head of the victim and his heart (fig. 414); a third has the heart, flames, and paraphernalia for sacrifice (fig. 415).

A vessel of this type from Mexico has appeared in the lap of a chac mool (fig. 75). These receptacles are found in considerable numbers among the Aztec and are represented in the Mexican manuscripts.

Except for the possibility that Mausoleum III was a platform that served as a *quauhxicalli*, none has been found in the Maya area.

TZOMPANTLI. *Aztec period.* The location of the skull rack in the plan of the Great Temple enclosure at Tenochtitlan has just been mentioned. Sahagun (bk. II, app.) writes: "The thirty-third edifice was called *Tzompantli*, where they speared the heads of the dead, for there they (also) killed captives in honor of the gods called Omacame." (Omacatl is a form of Tezcatlipoca.) The rack is described as "rammed-in poles and shafts on which they impale the heads of the dead."

In Sahagun's plan (fig. 410) the rack holds only two skulls. In the famous Upsala map of 1524 of the temple enclosure of Tenochtitlan, the compound shows two *tzompantli* (fig. 416) under one of which is written *capita sacrificatorii* (Maudslay, 1912, p. 12). Duran (1579–88) gives another post-Columbian picture of a rack with 99 skulls (fig. 417). In a modern restoration of the important structures at Tenochtitlan by Marquina (1951, pl. 55) the number of crania on the outside of the rack is well over 1500.

In the discussion of Aztec and Maya day signs, Seler (1:424) under the day Miquiztli (death) speaks of a round hole cut out of the side or top of the skull. "This is a picture," he writes, "of a skull as the Mexicans saw it when taken from the *tzompantli*, the skull frame, where usually the heads of the slaves and war-captives, sacrificed to the gods, were strung on poles thrust across the temples." Later (3:503), he considers one of the skulls on the frieze at Tepoztlan as showing a hole of the same sort from which blood is flowing. A glyph for death with the hole is shown in figure 418. Not only does the rack appear in the Mexican manuscripts but, complete with the skulls, it is represented in stone, stucco, and fresco.

Chichen. The most elaborate *tzompantli* extant is Mausoleum II, east of the Great Ball Court.[142] It is a platform in the shape of a T with the crossing very long in proportion to the stem. The decoration of the bottom and two sides of the stem has a band of bas-relief in four zones, broken at the bottom (the east side) by a stairway. The first zone is a cornice composed of six feathered serpents with a head carved in the round at each corner and angle. Below this is a line of undulating serpents. The main zone consists of 16 eagles each holding a human heart alternating with 20 typical dead Toltec warriors (fig. 460) associated with serpents and flames, some of whom carry trophy heads. Below is another line of serpents, making, if the decoration is consistent, over 50 serpents in all.

On the bottom, the ends, and probably the top or west side of the head of the T itself is a band of three elements: a single row of skulls at top and bottom, between them a double row of skulls, each two impaled by a vertical pole (fig. 419). If the west side is consistent, there would have been almost 2400 skulls.

Finally, each balustrade was probably decorated by a Toltec (fig. 461). Buried in the top of the platform was a cache, together with a chac mool wearing the conventionalized bird pectoral, similar in most respects to the Le Plongeon figure from Mausoleum I.

Other Yucatan sites. In several places there is a type of stone bas-relief which certainly suggests the *tzompantli*. It has alternating skulls and crossed bones. In Mexico we find this design in late times; in Yucatan it seems more frequently associated with the Yucatan-Maya sites. It is possible, for example, that these figures (fig. 420) at Uxmal were executed during the short period of Toltec occupation there (see also Maler, 1912). At Nohpat the skull and bones also occur.

Under a figure on a lintel at Sayil crossed bones are shown by Proskouriakoff (1950, fig. 102,*b*), who writes "Structure [4B1] . . . has widespread connections. . . . Its relation to monuments that are believed to be late suggests for it also an advanced date."

Crossed bones in Maya Great period. The design of alternating bones and skulls just considered in Yucatan are presumably very late in the Puuc period. There are a few examples on monuments which certainly seem to date from early in the eighth century. The famous Altar 5 at Tikal shows two human figures sitting beside a human skull resting on a pile of bones (fig. 390). One of the figures has two sets of crossed bones as part of his head ornament. The probable date on this altar is 9.15.10.0.0 (A.D. 741). On Lintel 12 at Yaxchilan the main figure wears on his shoulder cape two sets of crossed bones (fig. 391).

Cotzumalhuapa. The numerous figures of death in this region are considered elsewhere. On Monument 3 at Santa Lucia, in front of the ball-player and above one representing death, is a single skull resting apparently on a wooden rack (fig. 421).

Tula. At El Corral, above a line of half-reclining figures, is a frieze of alternating skulls and crossed bones (fig. 422), very similar to the Uxmal design.

Valley of Mexico. The skulls shown in the temple enclosure at Tenochtitlan have already been mentioned.

In the excavations in the Calle de Escalerillas at Mexico City a famous *tzompantli* in stone was found, along with a second one which contained a *xiuhmolpilli*, the stone symbolizing the cycle of 52 years. An altar with projecting death's-heads was also discovered (Batres, 1900, pp. 39, 41, 45; Caso, 1940).

Tenayuca has the skull and bones in fresco on the inside of an altar (fig. 423). On the outside of this platform is a line of crossbones with a skull, carved in the round, projecting at intervals. An incised femur (fig. 424) has this design, together with the date 2 Cane. Peñafiel shows the same design (fig. 425).

Skulls and bones are engraved on the bottom of a famous stone "pulque vessel" in Vienna (fig. 426). Other stones with skulls, mostly from Tenochtitlan, are shown by Seler (2:827–28, 861).

Other Mexican sites. Similar designs have been found at Tepoztlan on the famous bench. At Calixtlahuaca there is a structure with a circular and a straight wall, from which skulls project (Garcia Payon, 1936). At Cholula an altar containing a burial had a skull on each side (Noguera, 1937). The frescoes of Altar A at Tizatlan, Tlaxcala, may belong in this category, for on the sides are alternating skulls, hearts, and hands (Noguera, 1927).

At Cempoala the Templo de las Caritas has several hundred small heads of red clay, painted white, but it is difficult to relate these to a *quauhxicalli*.

Codices. Among the manuscripts showing characteristics of a *tzompantli* is the Magliabechiano (fig. 428), depicting a platform with bones and skulls on which rests a large *brasero* of Mictlantecutli. The altar in the Borbonicus (fig. 427) suggests the ones at Tenayuca and Cholula. As a place name, Tzompanco, the frame with one skull appears in several forms (Peñafiel, 1897, pl. 96).[144]

In the Paso y Troncoso edition of Sahagun (vol. 5, pl. 158) is pictured a *tzompantli*, obviously from Spanish times, on which the heads of the conquerors and the heads of their horses are impaled, as having been sacrificed to the gods.

Pottery. On several pieces of pottery are painted alternating skulls and crossbones. A vase from Cholula (fig. 429) has the interlocking cross. Among many, two from Tlaxcala are shown by Marquina (1928); other Aztec pieces, by Pijoan (1946, pp. 168–69).

Having considered the representation of human sacrifice, the heart and its disposal, and skulls of the victim as parts of the ritual, we now come to the actual presentation of the Warriors' ceremony as found in Middle America.

The carving or painting of a jaguar seat or of a procession of jaguars does not, by any means, indicate the Jaguar-Eagle or Warrior cult. But when an eagle or a jaguar is shown in the act of eating a human heart, there is no question that the ritual is indicated.

TOLTEC MILITARY ORDERS IN YUCATAN. Roys (1933, p. 196, App. F) discusses the presence of a cult of Warriors at Chichen. He points out that, in the prophetic literature of the Maya, several animals are mentioned which seem to refer to persons. "There shall be no fox to bite them"; "there shall be neither fox nor kinkajou that will bite"; "there shall be neither fox, puma nor weasel: there shall be none that bite. The claws of the puma shall be drawn; the claws of the jaguar shall be drawn." "The time shall come when the burrowing opossum and the jaguar shall bite one another." From the Tizimin we read: "At the time (of the year) 3 Kan the spots shall be removed from the red jaguars, the white jaguars. The claws and teeth shall be drawn from the jaguars of the Itza."

The author points out that the lists in Sahagun mention mantles, shields, headdresses, etc., worn by persons of high rank in Mexico. Several of these pieces of attire are the skins of animals mentioned in the above accounts. Many of these animals are shown in the codices. In the Temple of the Warriors

Roys recognizes the puma, the jaguar, the coyote or fox, and the eagle. Thus, from these accounts, we have literary as well as archæological confirmation of the existence of Toltec orders at Chichen.

LANDA AND THE CULT. In the month of Pax, the ancient Maya kept a watch in the temple of Cit-Chac-Coh ("father-red-puma"), which may have some connection with the Jaguar-Eagle cult.

> Before these five days [of praying, sacrificing, incensing] had passed [Landa (1941, p. 165) tells us] "they went all together to the houses of the captain in their wars, called the *Nacom*. . . . And they bore him in great pomp, perfuming him as if he were an idol, to the temple, where they seated him, and burned incense to him as to an idol. . . . The five days having passed, they came to the festival, which, as it concerned matters of war, and obtaining victory over their enemies, was of great solemnity. Then they began with the ceremony and sacrifice of fire. . . . Then they drove away the evil spirit . . . . This ended, the praying and offering gifts and incensing went on. And while the people were making these offerings and prayers, the lords and those who had already made theirs, took the *Nacom* upon their shoulders and bore him around the temple, perfuming him. And when they returned with him, the *Chacs* sacrificed a dog, and took out his heart and sent it to the idol between two plates. And each of the *Chacs* broke a large jar filled with drink, and with this they ended their festival.[145]

DISTRIBUTION OF WARRIORS' RITUAL. *Chichen.* It is the Temple of the Warriors that shows most clearly the relationship with the cult. On the north side of the façade, frescoes depict skeletonized figures, each holding a stone knife in one hand and a severed human head in the other (fig. 430). Death confronts an eagle. Behind one of the figures is a "bearlike animal"; before him is a second dead personage holding a human head and followed by a scorpion. Another figure with Tlaloc face holds a blazing incense burner (Morris, 1931, fig. 289, pl. 164). On the south and west sides of the pyramid are three bands in bas-relief (fig. 431). Pairs of partly recumbent human figures lie back to back; on either side of each pair are an eagle and a jaguar or, possibly, a coyote-like animal. Each holds a human heart in his forefeet or forepaws. The human figures seem to represent the god Tlalchitonatiuh, "the sun near the earth," with circled eyes and an elaborate staff. The second of the two deities wears what looks like a long bead-studded wig.

On the façade of the North Colonnade, above the row of round and square columns, are groups composed of a jaguar with a long- or a short-tailed animal flanked by eagles. These are very similar to the design on the bands on the pyramid of the Temple of the Warriors, just described. Shields, possibly representing the sun, occur on each of the front corners of the Colonnade.

In bas-relief on each side of the four stairways of the Platform of the Eagles (Mausoleum I) are two groups of three figures: usually a jaguar (fig. 432) in the center consuming a human heart and, on either side, an eagle (fig. 435) doing the same thing. As a frieze above each of the eight groups are two figures of the god Tlalchitonatiuh, feet to feet (fig. 243), as we have noted on the Temple of the Warriors.

On the east extension of the Tzompantli (Mausoleum II), between two narrow friezes of undulating serpents, is a band of eagles consuming hearts, interspersed with warriors possessing human heads but skeletonized or articulated bodies (Barrera y Alvarez, 1950, pls. 31, 32). These will be considered later in this section under the Dead Warrior.

On the façade of the Temple of the Jaguars there is a procession of *ocelotl*. In the lower chamber behind this structure are the Jaguar-Bird-Serpent monsters but no eagles; there is a jaguar altar, somewhat similar to but less elaborate than the one in the Castillo *sub*. Considering the frescoes in this structure and the two unmistakable representations here of human sacrifice, we offer a suggestion that these and other pictures of possibly incipient immolations in association with at least seven sun disks inside the building and jaguars both inside and out, may indicate certain features of the Jaguar-Eagle cult.

On the west wall of the North Temple of the Great Ball Court an eagle hovers over what is probably a human being; on the west end of the north wall are two probable eagle-men (fig. 433), one of whom seems to have wings.

A sculptured stone was found at the base of the east and west balustrades of the main stairway leading to the gallery of the Mercado. The stones were probably re-used, having once stood at the top of a balustrade; their decoration had no relation to their later position. Each stone (fig. 434) shows the body, lower feathers, and claws of an eagle holding an *atlatl* and darts and standing on a human figure with elaborate headdress, stretched at length at the bottom of the sculpture. There seems no question but what they once belonged to a larger design connected with the Jaguar-Eagle cult.[146]

In the court south of the House of the Phalli a re-used stone (fig. 436) showing a human face in an eagle's beak is probably similar to that just described.

On the façade of Str. 5B18 (fig. 22) is a panel in bas-relief, probably one of several, showing the body, wings, and claws of an eagle. This bird is somewhat like those just described but quite different from the ones on Mausoleums I and II.

Several of the spindle weights (fig. 501) from this site show incised eagles, a common design on such objects from many other places.

The cult is apparently figured on some of the disks from the Sacred Cenote. Two gold ones, L (fig. 437) and M, each show an encounter between a figure in the complete disguise of an eagle and a person who is definitely a Maya. Each of the attacked wears a long nose-bead; the one on Disk L has the leg of a bird as part of his headdress. It is significant that, as far as can be made out, these two plaques show practically the only association—not a very close one—between the Maya and, presumably, the cult of the Jaguar-Eagle.

It is worth noting once more that three gilded copper disks in the Cenote collection are in the late Santa Rita style, probably contemporaneous with Chichen III. All have rays of the sun on the border and conventionalized shells along the edge. In the center of the two in figures 276 and 438 is the head of an eagle. On the third disk the head is a conventionalized jaguar. Thus we have direct connections with the Jaguar-Eagle cult, fortified by the presence of shells which are undoubtedly part of the complex, for we are told by Thompson (1950, p. 49) that, "shells, particularly the conch and other univalves, symbolize the earth, the underworld, and the realm of the dead situated therein."

Mayapan. There are practically no indications of a Jaguar-Eagle cult here. Brainerd reports a fragmentary specimen which shows an eagle (Kidder, 1943, p. 96).[147]

East Coast. Representations of the Jaguar-Eagle cult are not numerous. At Tulum, on the fresco of the Temple of the Diving God, there is what is probably an eagle (fig. 439). At Santa Rita were found a stone jaguar head and three figurines of jaguars; possibly two eagles are shown on the frescoes (Gann, 1900). The three disks from the Sacred Cenote in the style of this region have already been discussed.

Cotzumalhuapa region. There are several clear indications of the cult here, many of them associated with figures of the dead, human sacrifice, and the ball game (fig. 487). There are from Santa Lucia two remarkable bas-reliefs (Monuments 16 and 17), each of an eagle evidently from on high, holding a human being in its mouth and a heart clutched in one claw (fig. 440). Monument 21 (fig. 441) shows a priest holding a stone knife in one hand, a human heart in the other. From the back of the figure on Monument 5 (Habel, 1878, pl. 3) hangs a jaguar skin.

Monument 4, from El Baul, is described by Thompson (1948, p. 26, fig. 5,*a*): "Around and under the priest, who wears the guise of the death god, lie the four victims face upward and with bodies arched in the usual position of sacrifice. Two are disguised as jaguars, and one as an eagle"; the fourth is Tlalchitonatiuh, a manifestation of the sun. On Monument 19 (Thompson, 1948, fig. 5,*b*), from Santa Lucia, a humanized eagle hovers over the priest's shoulder. On Monument 13 a skeletonized figure of death (fig. 462) stands before a man lying on his back. On Monument 9 (Habel, 1878, pl. 4) a jaguar appears with a seated figure.

As will be discussed later, many of the monuments from Santa Lucia show ball-players, several of them presumably addressing a celestial being at the top. Some are offering a human head to the god. One wears as a kind of glove the head of an animal, similar to the jaguar foot worn by the figure on Stela 8 at Seibal.

At the top of one of the three monuments from Palo Verde (Thompson, 1948, fig. 6,*a*) "a jaguar presumably symbolizes the sun." The figure below raises his hands to greet him.

Zaculeu. Dated from the first post-Classic stage at this site was a magnificent painted copper head of an eagle which once formed the center of a disk covered with turquoise mosaic. Inside the head was a copper bell "which would have given the bird 'a voice.'" A winged eagle-like figure forms the center of a mosaic-decorated plaque recovered from a tomb at this site. As this is dated in the Atzan or the Early Classic stage of Zaculeu, it is difficult to connect it with the Jaguar-Eagle cult as was possible with the eagle head (Woodbury and Trik, 1953, pp. 234, 264–65).

Tula. The same ritual is here as at Chichen and in the Cotzumalhuapa region. A stone with an eagle in bas-relief (fig. 442) was found in the colonnade before the main temple; from nearby came a "coat-of-arms" with crossed spears and a conventionalized human heart in the center (fig. 443). This is made clear by Tula eagles eating hearts of essentially the same form (figs. 444, 445). Another figure, "in fired clay from southern Mexico," of the bird eating the same conventionalized heart is at the Brooklyn Museum (Kelemen, 1943, pl. 63,*b*)[148]

Part of one side of one of the columns shows the feet of a Toltec figure wearing the skin and feet of an eagle (fig. 446). The same idea is brought out in Borbonicus 13, where a human figure is wearing the complete skin of this bird (fig. 447). The feet and one claw of an eagle appears on a clay tablet from Tula (fig. 448).[149]

Tenochtitlan. In Sahagun's plan of the temple enclosure (fig. 410), the platform on which a priest is burning copal is designated as a *quauhxicalli;* the structure in the lower left-hand corner is the House of the Eagle Warriors. Most of our information concerning it is derived from accounts of this cult as practised among the Aztecs. One of the "thirteen masterpieces of Mexican archæology" (Caso, 1938a) is the fragment of a huge statue of an eagle-knight found at Texcoco.

Malinalco. Perhaps the site most intimately and, it would seem, exclusively associated with the Jaguar-Eagle cult is Malinalco, which dates from the period just before the conquest. There are three circular, rock-cut lodges and some other structures (Krickeberg, 1947, pp. 123–97).

Room I is approached by a stairway at either side of which is a seated jaguar. In the center of the lower step are the remains of what Garcia Payon calls a seated *"portaestandarte."* At the top of the stairs a sculpture stands on either side: one is a coiled serpent with a human figure above, the other is a drum with a jaguar skin and over it a carving. The same author considers the first to be a "Caballero Eagle" and the second a "Caballero Jaguar."

The doorway beyond represents the open mouth of a large serpent with fangs at the side; the forked tongue is incised in the pavement (fig. 449). An entrance such as this may be like the one described by Bernal Diaz (Maudslay ed., 2: 80, XCII):

> A little way apart from the great Cue there was another small tower which was also an Idol house, or a true hell, for it had at the opening of one gate a most terrible mouth such as they depict, saying that such there are in hell. The mouth was open with great fangs to devour souls, and here too were some groups of devils and bodies of serpents close to the door, and, a little way off, was a place of sacrifice all blood-stained. . . .

Inside the lodge a bench runs around the back and sides: on it in high relief is a jaguar with an eagle on either side. A second jaguar is in the floor in the center.

Room III is approached through two square columns. Beyond is a square altar on which incense was burned. The outer room had a bench on both sides; on the back wall it was broken by the doorway to the circular room behind. In the center of this room was another place for sacrifice. There were remains of three Toltec warriors in fresco, to be described later.

The third circular apartment, Room VI, was probably left unfinished.

Str. IV was a large rectangular room, partially cut out of the cliff. It had an entrance formed by two oblong pillars with a later wall built between them. In the center axis of the room were two low oblong foundations for the two wooden supports for the roof (Marquina, 1951, pp. 204–15).

A beautifully carved wooden drum, *tlapanhuehuetl* (fig. 450), is closely connected with this site, and its carvings carry on the story of the "Military Orders of the Eagle and Jaguar Caballeros." There is the well-known design of 4 Olin, the same day sign and number that is on the Calendar Stone. On one side are an elaborate eagle-like figure with human head and a jaguar; on the other side is an eagle. The eagle and jaguar each have a war banner (*aztaxelli*); the war cry (*atl-tlachinolli*) issues from their mouths. Separated by a band of intertwined serpents and shields, the same jaguar appears twice below, along with one eagle-warrior.

Part of a design on another drum consists of the intertwined bodies of an eagle and a jaguar (fig. 451).

Xochicalco. Stones on the foundation mound of the main

temple show warriors with shields and arrows, jaguars, and eagles. A warrior with eagle is shown in figure 452.

Tajin. This site, like Tula, Cotzumalhuapa, and Chichen, is one of the generally contemporaneous groups having evidences of the Jaguar-Eagle cult. The ball court, one of the features common to all four sites, will be considered in the next section.

Here on the four panels of the Great Ball Court are data differing in detail but all falling into the typical "Totonac" decorative style or pattern. The southwest panel (fig. 453) shows, in addition to the usual secondary designs, two persons facing each other; between them an eagle sits on a prostrate individual who is probably about to be sacrificed, as is shown on the northeast panel (fig. 493). A grotesque figure comes from on high.

Mixtec-Zapotec region. The cult seems in evidence here. A tomb at Monte Alban shows a jaguar eating a heart. Among the Mixtec jewels from Tomb 7 at Monte Alban is a bone carved with jaguars and eagles; another of the jewels is an eagle. In Tomb 104 an eagle is on the fresco; in Tomb 105, a jaguar head (Caso, 1938). Pijoan (1946, p. 228) illustrates a number of the famous gold labrets of eagles. The well-known figure urns often show jaguars (Caso and Bernal, 1952, pp. 54–64).

In the Mitla frescoes is an excellent eagle (fig. 454). An especially fine head in the Buffalo Museum has a headdress of the "sun-eagle" (Burland, 1948, p. 57).

Codices. Here we find abundant representations of the cult. In the eleventh week of the *tonalpohualli* of the Aztec and Toltec manuscripts, the ruler is Patecatl, the pulque god, "for pulque is the drink for strong folks." Usually opposite him are a jaguar and an eagle. In figure 454A the jaguar and the eagle each have a paper flag, the emblem of war (which we have seen on the Malinalco drum); the flags "indicate that they, or rather the warriors represented by them, are destined for the sacrifice."

In Selden A is a scene which tells almost the complete story of the cult (fig. 455). Above a human sacrifice, two human figures and an eagle ascend to the sun; the eagle and one of the figures each carry a heart. In the same manuscript a god in eagle costume associated with a sun disk, the "sun eagle," converses with another personage (fig. 456).

In the Porfirio Diaz the jaguar with eagle wing is extracting the heart from a victim (fig. 457). On the same page an eagle is sucking the blood of one sacrificed (fig. 458). Again in the same manuscript, an eagle-man, signifying the sun, is devouring the heart of the victim who has just been sacrificed above (fig. 459).

In the Vienna Codex the eagle-warrior with human face and eagle wings and claws above his human feet has been mentioned. In Nuttall 29 much the same figure is noted. In Nuttall 69 there is what may be an unusual conception of a ball court; above it are a jaguar and an eagle, a scene of human sacrifice where the priest has a black face.

THE DEAD WARRIOR. In our review of the deities, Tlauizcalpantecutli, as representing Venus, is sometimes described as a dead person going into the underworld. This may have been another way of describing the warrior's entrance into this paradise.

The representation of an articulated human figure with fleshless arms and legs is fairly common. The head may or may not be a skull; the ribs are sometimes seen; the hands and feet are usually as in life. The figure seems to be part of the context of the Jaguar-Eagle cult. The identification of Tlauizcalpantecutli with this Dead Warrior is possible.

Chichen. On the exterior frescoes of the Temple of the Warriors we have seen this personage; associated with the eagle, he is holding a stone knife and a human head (fig. 430). Another articulated figure here, seemingly wearing the head of Tlaloc and holding a flaming incense burner, has also been mentioned. There is a third warrior, carrying a human head and apparently associated with a serpent and a scorpion. A characteristic feature of these and other figures is a bow at the wrists, at the knees, and at the ankles.

On Mausoleum II we find the articulated figure (fig. 460) repeated 20 times, sometimes holding a human head and always alternating with eagles who are consuming hearts. He quite definitely represents the Dead Toltec Warrior associated with the Jaguar-Eagle cult. Serpents and flames seem to be coming from his body, and he wears anklets of reptiles. One figure on the balustrade (fig. 461) is standing on what seem to be spear-points. He has serpents coming from both arm and knee joints as well as around his ankles. He carries an *atlatl,* the curved club, and a dart or spear.[150]

In the Lower Temple of the Jaguars the serpent anklets appear on a living warrior (fig. 539), who seems to be one of the leaders of the Toltec on this bas-relief.

On the cornice of the dais of the Northeast Colonnade serpents swallow human bodies, probably of the god Tlauizcalpantecutli (fig. 237). Here the human figure is not articulated but the general design is similar to the one at Tula.

Cotzumalhuapa region. On Monument 13 at Santa Lucia (fig. 462) the Dead Warrior, associated with serpents and possibly flames, is addressing what seems to be a fallen ball-player. On Monument 3 the secondary figure, also a player, shows the fleshless bones. He is pointing upward to a severed head. To these examples from this site should be added a stone bowl in the front of which is a bat-headed creature with the articulated limbs (Thompson, 1948, fig. 16,*b;* Habel, 1878, VIII, 18).

Tula. On the Coatepantli the serpents swallow skeletonized human figures (fig. 238).

"Totonac" region. On one of the sides of each of the four panels of the Great Ball Court at Tajin death appears as a skeleton (fig. 492). The same figure descends from the sky on the northeast panel (fig. 493).

There are at least two yokes that show parts of personages with fleshless arms (figs. 463, 464). The bow, so often depicted on these figures, adorns the wrists.

OTHER FIGURES OF DEATH. There are other articulated figures of death, which, unlike those just mentioned, do not seem to be connected directly with the Jaguar-Eagle cult.

Valley of Mexico. A skeletonized figure of the death god Mictlantecutli, who was one of the Tzitzimime, occurs on a statue of Miquiztli in the National Museum (Peñafiel, 1910, pl. 43).

Codices. In the Magliabecchiano is an articulated figure of death wearing a crown and a necklace of alternating hearts and hands and showing the flint issuing from his mouth. Figure 465 shows the upper part of the figure. This type of deity is not uncommon in some of the Mixtec manuscripts. He appears in the Laud with the flint point at his nose (fig. 466); in Nuttall 28 with an *atlatl,* darts, and round shield—his ribs, arms, and legs fleshless; in the Borbonicus with a flint in his mouth (fig. 467).

Finally, in the Magliabecchiano is the mummy bundle of the Dead Warrior with his decorations and offerings (fig. 403).

10. BALL COURTS AND THE BALL GAME (*TLACHTLI*)

The ball game extended from South America and the Antilles, through Middle America, into North America. In the Maya area the ball court, in point of time, dates from the Classic stage on through the Mexican periods. The game figures in the Quiche and Toltec legends, is found in the Mixtec-Zapotec and "Totonac" areas, and is described by the Spaniards as played by the Aztec and other Mexican peoples.

THE COURT AND THE GAME. There are many points of interest: the orientation of the walls of the court, its form and cross-section, its parts, the presence or absence of stone rings or substitutes for them, the markers or altars and their positions, the benches, the "niches," the possible presence of the patron deity of the game. We are concerned, too, with the dress and paraphernalia of the players, the method of propelling the ball, and the rules of play. The festive and religious character of the game, the symbolism of associated structures, many of which were temples, are all of importance.

Fortunately, many of the courts remain. Several have been excavated, a few almost completely restored. There are even some miniature clay models in the Tarascan style of a court with players and audience (Stern, 1948; Marquina, 1951, p. 268).

The court in the manuscripts. The depiction of the court with its players and the ball of rubber is a common feature in many of the Aztec, Mixtec, and Toltec codices. The gods and symbols in these pictures give some idea of the religious associations of the game.

Aztec place names, such as Tlachco, Tlalachco, Tlachquiauhco, and Tlachtitlan, show pictures of the court (Peñafiel, 1890; his 1895a, pp. 281–82, gives many derivatives of the word *tlachtli*). The tribute rolls list rubber for the balls.[151]

Sahagun tells us that at the great temple at Tenochtitlan, dedicated to Huitzilopochtli and Tlaloc, there were two ball courts. In his plan of the sacred enclosure (fig. 410) a court is close to a skull rack, which, as we have seen, is also the case at Chichen. On one of the famous Mixtec jewels a *tlachtli* with two players appears just above a sun disk. The court is sometimes shown on pottery.

In the Fejervary-Mayer a ball-player is at the end of a playing field, wearing a glove on his right hand and a piece of skin around his buttocks (fig. 468). The rings are curiously indicated. The "hole" in the center may be a feature. In Borgia 21 the red and the black Tezcatlipocas are playing ball. Presumably the red god holds the ball; from it hangs what may be a bag in which the ball is carried. Another ball with a serpent coming from it and dripping with blood, according to Seler, is in front of the black god. There are at least 12 ball courts in the Nuttall; some of them may be place names. On Nuttall 80, 6 Jaguar and 8 Eagle are each seated on a cushion covered probably by a puma's skin. Others from this manuscript are considered later. The most realistic game and court are in Magliabecchiano 80.

There are no ball courts in the Maya manuscripts, with the possible exception of Dresden 41a, where God B may be sitting across the two walls of a court.

The court in Landa and the Popol Vuh. In addition to contributions from the archæological and codical sources, there are accounts of interest in the literature of the Maya and Mexican areas. Landa (1941, p. 124), after describing "a large house, whitened with lime, open on all sides, where the young men came together for their amusements," adds, "They played ball. . . ." It is probable this does not refer to a game in a ball court. As we noted previously, the Bishop does not mention the finest of all courts, the main one at Chichen, although he does speak of two of the "stages" only a very short distance east of the great wall of the court.

Probably the earliest written account of the ball game is in the Popol Vuh, which shows the close association of the game with Quiche mythology and with the underworld. Xpiyacoc and Xmucane, "the creator-couple," had two sons who were attacked by the rulers of the underworld. We read (Goetz and Morley, 1950, pp. 107, 109, and *passim*):

> Here is the story. Here are the names of Hun-Hunahpú ["1 Hunter, Lord or Chief"] (and Vucub-Hunahpú) ["7 Hunter"] [The first had two sons, Hunbatz ("1 Monkey") and Hun Chouen, who appear later in the legend. The story continues:] Well, Hun-Hunahpú and Vucub-Hunahpú did nothing but play dice and ball all day long; . . . And having gone to play ball on the road to Xibalba [the underworld], they were overheard by Hun-Camé ["1 Dead"] and Vucub-Camé ["7 Dead"], the Lords of Xibalba.
>
> "What are they doing on earth?" [asked these chiefs of the underworld.] "Who are they who are making the earth shake, and making so much noise? Go and call them! Let them come here to play ball. Here we will overpower them! We are no longer respected by them. They no longer have consideration, or fear of our rank, and they even fight above our heads."
>
> And having gathered in council, they discussed how to torment and wound Hun-Hunahpú and Vucub-Hunahpú. What the Lords of Xibalba coveted were the playing implements of Hun-Hunahpú and Vucub-Hunahpú—their leather pads and rings and gloves and crown and masks which were the playing gear [for the game]. . . .
>
> Hun-Hunahpú and Vucub-Hunahpú went immediately and the messengers took them on the road. Thus they were descending the road to Xibalba by some very steep stairs. [After various ignoble tricks were played on them, they arrived at the House of Gloom. Meanwhile the Lords of Xibalba discussed what they should do with them.] "Let us sacrifice them tomorrow, let them die quickly, quickly, so that we can have their playing gear to use in play," said the Lords of Xibalba to each other.
>
> [After some discussion, Hun-Camé and Vucub said to them,] "Now you shall die. You shall be destroyed, we will break you into pieces and here your faces will stay hidden. You shall be sacrificed." . . . They sacrificed them immediately and buried them in the Pucbal-Chah [place of sacrifice of the ball court?"], as it was called. Before burying them, they cut off the head of Hun-Hunahpú and buried the older brother together with the younger brother.
>
> "Take the head and put it on a tree which is planted on the road," said Hun-Camé and Vucub-Camé. [This was done and] instantly the tree, which had never borne fruit . . . was covered with fruit. Thus his head was changed into a gourd.
>
> [The sons of Hun-Hunahpú now enter the picture. They were] very wise . . . on earth they were sooth sayers of good disposition and good habits. All the arts were taught [them]. They were flautists, singers, shooters with blow gun, painters, sculptors, jewelers, silversmiths.
>
> [After some miraculous episodes, the two sons avenged the death of Hunahpú. The Lords of Xibalba were sacrificed.] Only by a miracle and by their [own] transformation could [the boys] have done it.

The importance of this account for us is the connection of the game with the underworld and the cutting off of the head of Hun-Hunahpú.

Joyce (1933), in discussing the figurines that he found at Lubaantun, lists a ball-player's accoutrements given in the Popol Vuh account: *quid*, rubber ball; *baté*, ring; *pachgab*, hand protection (gloves); *tzuun*, deer-skin thigh protection (leather leggings); *yach-vach*, face protection (crown); *vach-zot*, head ornaments; and *qaza-a-vach*, possibly a mask, insigne of the wind god. The last may refer to the snout of this god, according to Joyce. Four items on this list have already been discussed. The face protection may be indicated on the figurines from this site (Joyce, 1933, pl. 7); it may refer to the mask in his figure 5. The glove, which has been noted in other places, is seen in his plate 7, nos. 18–22, and plate 8, no. 4. The head ornament is difficult to identify.

The court in Aztec times. Of the early Spanish accounts of the game as played by the Aztec, the detailed one by Duran is perhaps the best. Much of it has been translated by Blom (1932, p. 488). See Stern (1948, pp. 46, 50) for other Spanish authorities.

Modern studies. Many phases of the game, its origin and symbolism, are covered by special studies; a detailed description will therefore not be given here.[152]

Origin of the Maya game. In 1927 I published a map (1927, fig. 4) bearing the caption: "The Toltec period of the Mayas showing the submergence of the Maya by Mexican influences and the extent of the greatest expansion of the Toltecs based somewhat on the distribution of Ball Courts and the Chac Mool figures." Most of the sites on this map having courts are late and well within the Toltec horizon. When I wrote this paper there seemed no doubt that ball courts in the Maya region had a Mexican origin.

Perhaps the first suggestion of a court in a Classic Maya site was made by Maler in his study of Yaxchilan (1903).[153] Many years later Lothrop (1927) suggested that a similar structure at Piedras Negras might be a playing field. In 1928 Blom (1930) clearly established the fact that ball courts were to be found in the "Great Period" in the south and suggested a southern and Maya origin for the game. Thompson, Pollock, and Charlot (1932) reported a ball court with rings at Coba in the Classic era. Since then many other courts have been reported, generally associated with Late Classic Maya sites as well as with centers in Mexico.

The one at Copan has three levels. Court I, probably the oldest in Middle America, is dated about 9.0.0.0.0 (435); Court III, 9.11.0.0.0 (652) "or later, possibly as late as 9.14.4.0.0" (775). The last court has been beautifully restored (see Proskouriakoff, 1946, pl. 10; Stromsvik, 1952).

The court and religion. That the nonsecular aspect of the game seems to have occupied first place in the minds of the builders is clear from the Great Court at Chichen, its four associated temples with their wealth of figures in bas-relief and in the round, wood carvings, and frescoes.

In reviewing Quetzalcoatl's life and wanderings, we have already learned: "They tell how at another place he ordered a ball court to be erected of square stones, where they used to play ball."

Sahagun's account (bk. II, XV; Bandelier, 1932, p. 63) describes the character of the game: [154]

> Panquetzaliztli they called the fifteenth month, and during this month they celebrated the festival of the god of war, Vitzilopuchtli. Previous to this festival the priests of the idols fasted for forty days and did other heavy (severe) penance, such as to go naked at midnight into the woods to gather bunches of flowers. . . .
>
> After those who were to die during this festival had gone through a number of ceremonies, Vitzilopuchtli descended from the Cú (temple), that is he, the god, was represented by a man, dressed in the ornaments and insignia of the god Paynal [the Vicar of Uitzilopochtli], and he killed four of those slaves (prepared for death) in the ball game which took place in the court called Teutlachtli; he then left and made the circuit of the entire city, running, and in a determined place in each quarter, he killed one slave. After that two parties began to fight sham battles, at which some of the fighters died.
>
> Finally, . . . they killed captives . . . as well as many slaves.

In the Quiche account we read "of the place of sacrifice of the ball court." It is significant that the actual sacrifice, according to Table 15, is in direct connection with a ball court at Chichen and at Tajin; at Cotzumalhuapa sacrifice appears on the stelae. That this was a new feature, added to the ball-court ritual in later times, is possible, for sacrifice does not seem to accompany the other data on the game as shown at Copan or the Late Classic sites in Table 15.

Purpose of the game. From what we have just noted and for other reasons it is impossible to determine any one purpose of the game; it undoubtedly varied in time and place. Among various explanations, Stern (1948, p. 70) and others point out the importance of agriculture in Middle America, "the consequent pre-occupation with fertility rites," and "the fact that the ball game itself became involved in the iconography of growth and ceremonialism." He speaks of human sacrifice as "especially directed toward insuring fruitfulness. Finally warfare itself, as it grew to be the principal agency for securing the large number of victims demanded, likewise became subordinated to the general need."

The greater number of courts are oriented north and south, and one thinks of the ball as thrown lengthwise of the court. Only if the ball passed from side to side—from east to west—could Seler's theory (3:305–51) that it followed the apparent daily movements of the sun and moon be acceptable.

The association of the game, in its later periods at least, with human sacrifice and with war is almost everywhere evident, but its main object, I believe, was centered on the Jaguar-Eagle cult. In the Quiche myth we have seen the importance of the underworld. This Warrior rite is relatively late and could not account for the game in Classic times in the Maya region.

We have previously considered the bas-reliefs, especially at Chichen, in the Cotzumalhuapa region, and at Tajin, from the point of view of the Warrior cult. Here we are concerned with the game and the contestants. From their distribution on bas-reliefs some of the habiliments of the players seem to have been very constant in the Late Classic as well as in the later Mexican periods.

Methods of play. The early accounts tell of the playing rules. It is obvious that the form of the court determined the character of the play and that the same rules could hardly apply to procedure on a court with vertical walls as on one with sloping walls. The amount of inclination is also a factor: one could easily run up some of the ramps, but the slope is sometimes too steep for this. Three parrot heads protruding from the top of a wall could not play the same role as a ring, whether of stone or of wood.

The ball. The ball was undoubtedly of rubber. It appears in several bas-reliefs showing the players and also in the codices.[155]

Stone ring (*tlachtemalacatl*). *Classic stage.* Stone rings are reported in the Classic site of Coba, but their general absence from most courts in centers dating from this period has been variously explained. In place of the single ring on each wall at Coba and in several of the later courts, we often note as a substitute one or three heads on either side. At Copan, in the latest of three courts, a parrot's head stood in the center and near either end of each wall. Five macaw heads also stood over doorways connected with the court. Two heads were found which were probably once associated with the second court, now covered by the third (Proskouriakoff, 1946; Stromsvik, 1952). Parrot's heads were also found at La Union, Honduras, and at Asuncion Mita, Guatemala.

At Guaytan in the Motagua Valley fragments of two sculptured human heads, without tenons, lay on the surface of Ball Court 1. In Ball Court 2 were five sculptured stones, with tenons, representing snake heads—three holding human heads in their open jaws (Smith and Kidder, 1943, pp. 117–18).

Chichen. Each of the two rings here has a total diameter of 4 feet; an 11-inch-wide band surrounds a hole about 18 inches across. Each ring carries a design of intertwined serpents. There were probably two rings with the same design in the court near the Monjas, where pieces of one were found. Parts of a ring found near Mausoleum II bore a guilloche of serpents on both sides; on one side, also a circle of fish (Salazar, 1952).

Mexico. A ring was found at Tula but it is not known to which of the two courts it belonged. Two rings were discovered in the Xochicalco court.

A large number of rings have been found in Mexico, especially in the Valley; many are now in the National Museum in Mexico. They seem to belong to both Toltec and later times. Several show an eagle or a jaguar and a part of a sun disk, which would emphasize the close connection with the Jaguar-Eagle cult.

One at Tepoztlan (fig. 469) and another from Texcoco show an eagle. One at Tepeaca, Puebla, and at least one in the National Museum are carved with a sun disk, a symbol also seen on two others from Mixquic, east of Xochimilco (Guerrero, 1953). One of the latter is associated with a jaguar and the other with a *Señor de la Tierra*.

In the Barrio San Francisco, near San Juan Teotihuacan, Linné (1942, p. 23) shows a stone ring and tenon. A figure on top of the ring may be a jaguar. Neither Aztec nor Teotihuacan sherds were found here, but this ring—with jaguar, eagles, and sun disks—may demonstrate the connection between the Jaguar-Eagle cult and the ball court.[156]

Codices. The representation of ball courts are frequent in practically all except the Maya manuscripts. The most realistic, in Magliabecchiano 80, shows two players, one with the ball. The court has its two rings and three death's-heads across the court. In Borgia 21 a serpent head projects from the court; in Borgia 40 the figure of death stands between the two players. In the Nuttall three of the 12 courts are each being swallowed by a monster coming from a ring (fig. 470) (for others, see Krickeberg, 1948, fig. 37).

Hole (*itzompan*). A central opening in the playing field is mentioned in some of the Spanish accounts, especially by Tezozomoc "in a description of the first, legendary game played by the migrant forefathers of the Tenochas (Aztecs)" (Stern, 1948, p. 54). It is shown in some of the Mexican manuscripts: Fejervary-Mayer (fig. 468) and Aubin 19. This hole has seldom been identified in an archæological site. It might conceivably be interpreted as the entrance to the underworld.

Markers. This term is variously defined; here it designates the altar-like stone flush with the playing service, most often on the central field. Whenever these markers are found, there are usually three: one in the middle and one at each end, often in line with the end of the benches.

At Lubaantun, British Honduras, were three markers, badly weathered but clearly showing two players with a ball between them. A similar design, in much better condition, was found by Morley on an "altar" at Cancuen, a short distance west of Lubaantun.[157]

The court at Tenam Rosario has three markers in the floor of the court and three others on top of one of the walls (Blom, 1932). In the northwest court at Yaxchilan (fig. 471) the usual three on the floor are augmented by one on the remarkably wide and sloping bench on each side. On Str. R-11 at Piedras Negras a sculptured stela on the slope is called by Satterthwaite (1944) an "apron-marker."

These stones are generally absent from the Mexican area and from the Great Court at Chichen, where, however, they do occur in the Monjas court.[158] On a few of them one or two players are portrayed.

In the Nuttall (fig. 472) a picture of a court shows three markers and the two rings. This is probably a place name.

Lines on the playing field. In the manuscripts various colors divide the court, sometimes longitudinally, by a line running across the center and in other directions.

At Chichen, in the central field of the court in the Far East Group, there is an "interfield line defined by a narrow stone band set in the floor." In the courts near the Casa Colorada and the Monjas a serpent guilloche in bas-relief, flush with the floor, seems to run across the ends of the playing field at about the place where the benches end. Neither serpent head nor tail appears at either end of the line, only a loop of the serpents' bodies.

The Lubaantun stone markers show a playing field with longitudinal lines.

Niches. If present, these are usually somewhere on each of the end walls. They are found at Tula, at Azompa, Oaxaca, and in two courts at Monte Alban. Their purpose has not been determined (Caso, 1935a).

Types of court. The nomenclature of the parts of the court is still a matter of discussion, as well as the definition of the various plans. One classification (Acosta and Moedano, 1946) considers most of the courts to fall into one of three types, but a few courts are difficult to place.

Type A has a low bench, with vertical or slightly sloping face, bounding each side of the playing field. The top is either flat or gently inclined. From the back of the bench rises a sloping wall, the *gran talud* or "apron." At the top of this is usually a low vertical wall, "paramento" or top playing wall.[159] In some courts there are steps at the top (fig. 471). These features are found on courts at Coba, Monte Alban, Str. R-11 at Piedras Negras, and Yaxchilan.

The degree of slope is often mentioned. Type A, according to Acosta and Moedano, usually has an inclination between 20° and 40° from the horizontal.

Type B has no actual bench. The great slope rises directly from a low facing wall and ends with the usual top vertical wall. The slope of this kind of court varies but is generally less slanting than in Type A, about 20° or less from the horizontal; in many cases, the player could easily run up it. This has also been called "the playing surface." Copan, Str. K-6 at Piedras Negras, Xochicalco (whose court runs east and west and where the rings were found), and Tula are some of the sites where this variety is encountered.

Type C has a perpendicular wall rising directly at the back of the low bench which has a vertical or sloping face. In this group belong the Great Court and probably that of the Monjas at Chichen and the court at Etzna, Campeche.[160]

A hypothetical evolution has been assumed for these types, C being generally ascribed to Toltec times and the last of the series. But this sequence does not hold. Ruz (1945) points out that the Type C court found at Etzna is associated with pottery which seems to date from the Late Classic, and also has a stela (fig. 485) showing a ball-player with a Type B court. This monument is one of several with dates running from 9.12.0.0.0 to 9.18.0.0.0 (672–790). This would put a Type C court too early to end any evolutionary series.

Ball court cult. The court and its contestants have been traced back to Late Classic times in the southern Maya regions. There is considerable similarity in the courts and the habiliments of the players wherever they are found (see Table 15). In later times, we find four sites which, in at least one of their periods, are contemporaneous: Tula and Tajin, Chichen and Cotzumalhuapa. The players shown in these places reveal a surprising similarity in their apparel. The truly significant feature, from the point of view of "schools of art," is the fact that, counting Tula and Chichen as a single type, there are two other distinct art styles: one at Cotzumalhuapa and the other at Tajin. Each of the three has its own way of expression, and into each matrix are successfully introduced the same numerous and fundamental components of the game.

Two groups of sites seem to emerge from a study of the subject matter on bench and panel, on the rings, in the dress, the habiliments, and the ethnic group of the players and their actions. The later group, consisting of four sites dating from Tula-Toltec times, shows the players clearly associated with human sacrifice; in two cases at least, Toltec appear as players. The earlier group composed of sites dating from the Late Classic period, has for the most part the same playing paraphernalia as those of later times but lacks human sacrifice in almost every case. This negative evidence gives weight to the thesis that the general practice of human sacrifice appeared relatively late.

There a close association not only between the Ball Court cult, as it is known in later times, and human sacrifice but also between these and the Jaguar-Eagle cult (Table 14). The complex appears most clearly at Chichen, Cotzumalhuapa, and Tajin.

Courts and players at Chichen. Up to the present time nine courts have been reported here or in adjacent sites; their main features are listed in Table 16, as far as data are available.

Great Ball Court (Str. 2D1). On the west edge of the main Toltec group is the largest and most famous of all courts in Middle America. The slightly sloping face of each of the two benches carries three long panels of bas-relief. The top of the bench is flat. At the open end of the two walls, at the north, is a single-room temple with two round sculptured columns; at the south, a portico with six square sculptured pillars. On top of the south end of the east wall is the most beautiful structure at Chichen, the Temple of the Jaguars or of the Jaguars and Shields. Behind this, on ground level, is the Lower Temple of the Jaguars (Maudslay's E). There are remains of cell-like constructions on the middle and near the ends of the west wall, and on the middle and north end of the east wall.

Monjas Ball Court (Str. 4C1).[161] This court, the north end of which abuts the back wall of the Monjas, probably is of Type C, with benches, sloping fronts, and perpendicular walls behind. On the outer sides each wall has a stairway running its entire length to the top. On its north end, there is a platform with stairs on three sides in front of a low wall. On the south end there is a low wall with side walls on a line with the end of the benches. There are the remains of rings and the three plain markers along the middle of the playing field. The end stripes or serpent guilloches running across the playing field are described in Chapter III-7c1.

In general the design on the eight panels is very similar to that on the Great Ball Court bench but the work is less well executed. About 45 players are counted here, against 84 on the larger court.

Little Tables Ball Court (Str. 3E2). The court (fig. 473) behind the Temple of the Little Tables seems, from plan and description, to belong to Type A. It probably had panels at either end of the benches. At the south end of the court a single-room temple had an entrance of two square columns sculptured with human figures. In the debris were two serpent heads. To the southwest are the remains of a sweat house; this may well have been used in conjunction with the strenuous game played in the adjoining court.

Casa Colorada Ball Court (Str. 3C10). This court, east of the Casa Colorada, clearly belongs to Type B. A band of intertwined serpents defines the playing field. Of the three sculptured panels on the face of each *talud*, Ruppert (1952, fig. 124) shows both middle ones. Each has much the same design as on the benches of the Great Ball Court and the Monjas Ball Court. In the center of the vertical top wall on the east is a sculptured panel. The unique feature here is the portico on top of the east wall with six round columns. It is approached from the back of the wall by a stairway.

Warriors Ball Court (Str. 2D9). This court, behind the Temple of the Warriors, belongs to Type B. Remains of two rings were found. On the face of each *talud* are five sculptured panels, on which animals seem to be part of the design. The top perpendicular wall may have been in two steps. The remains of a superstructure on the south end of the west wall are approached by a stairway at the back.

Mercado Ball Court (Str. 3D4). West of the Mercado is a court clearly of Type B. Stairways are suggested at the back of each wall, somewhat similar to those of the Monjas court. On top of the east wall are remains of a three-chambered structure with no evidence of a front wall. There were benches in the center and the north rooms, the latter a dais with serpent cornice and sculptured face showing Toltec each holding a Maya prisoner (Ruppert, 1952, fig. 129,*c*,*d*).

Other courts. The court in the Chultun Group seems to have a bench and a *talud* behind, which would classify it as Type A. The wall on the north end is broken by a rectangular mound.

Both the Far East Group and the Holtun Group have remains of a court. In the former there is an "interfield line defined by a narrow stone band set in the floor." Few details can be made out. On the south wall of the latter are remains of a temple with columns and carved stones.

Bas-relief on benches of Great Ball Court, Chichen. So far as can be made out, the subject of the designs on the faces of some of the benches in the courts seems to be about the same. The only complete record is that on the panels of the Great Ball Court at the west end of the ceremonial center. The three panels on each side have a repeating design, whose details differ only slightly (fig. 474). There are some 14 figures in each panel, making about 84 in all. Each seems to represent a human decapitation, the aftermath of a "mock" contest between two teams of ball-players, perhaps one Maya and the other Toltec. There is no evidence of warfare or the sacrifice of a conquered foe that apparently explains the death of the victims thrown over the sacrificial stone in other scenes of death at this site.[162]

All those taking part usually wear the nose bead, the round ear disk with long tubular bead, the back-shield, and essentially the same equipment most often associated with the game: the padded arms, the padded right knee, the "slipper" type of sandal on the right foot with a "puff" at the instep of the left sandal. The glove, worn by many players from other places, is missing here. Each figure wears a tunic with a back-shield. Over this is the "'yoke"; sticking upward from its front may be a *palma,* ending usually in a skull or head of a serpent. Each personage, excepting the one who has made the sacrifice but even including the one who has lost his head, holds in his right hand a flattish boxlike object with a jaguar head in front. This may represent a yoke of wood. Each has a handle by means of which it is carried.

The two teams. In the center of each of the six panels is a round object which probably represents the ball used in the game. On it is a skull from whose mouth issues a flamelike scroll. On either side is a team of seven players; the two teams change sides from panel to panel.

In the panel illustrated (fig. 474), to the left of the ball is the Maya group, led by the executioner, who is one of the few on this side who seems to be talking. He holds a stone knife in his right hand and a severed head in his left. The Maya characteristics are the panache of feathers hanging from the shoulders and displaying beads strung near the ends of the plumes. The mosaic or stone cape or collar and the "box"-like headdress with the beaded front are worn by all the figures on this side.[163] In several cases, the top of the hat ending in feathers above the "box"' is similar to the headdress worn by the Maya in Cenote disk M (fig. 619) who also wears the panache.

The six figures on the side of the one who has lost his head, making seven in all, are almost certainly Mexican, although not the typical warrior of this class who appears so consistently at Chichen and Tula. (The victim of sacrifice will be discussed later.) The most significant characteristic of the dress of the players on this side is the shell design, sometimes within a star, worn as a pectoral by five of the figures. This is a sign of the Toltec Quetzalcoatl. Another Mexican feature is the turban worn by four of the group. It appears with or without an interwoven serpent.

On the north wall of the North Temple (Marquina, 1951, photo. 439), to the left of the main standing figure, is a line of seven figures wearing turbans and the conventionalized Toltec bird breast-ornament. On the other side and opposed to these Toltec is a line of five more conventionally dressed Mexicans.[164] On this side of the bench, the third person has his hair dressed very similarly to that of the middle figure of Disk I, also a Toltec but with his *atlatl* (fig. 529,*i*). The one behind him has his head in the jaws of an animal, a position also taken by Mexicans in the Temple of the Warriors, Column 5N, and its Colonnade, Columns 27N (fig. 590), 55W, and 57W.

All except the one sacrificed show an elaborate speech-scroll. On the center panel on the east side the design before the leader, who is behind the victim, has dots and crosses; these have already been discussed in relation to masks and are probably indicative of death and the underworld. One cross on this panel is on the vine coming from the neck of the victim (Proskouriakoff, 1950, fig. 106,*c*).

At first glance it looks as if the two groups of players on each of the six panels belong to the same ethnic background: all wear essentially the same habiliments associated with the game. But in other features of their dress they differ in such a way that, as has been suggested, they may represent Maya and Toltec.

In other places, the personages who most closely resemble those assumed to be Maya are the ones seated in line on the south bench of the Temple of the Chac Mool (fig. 671). They have the panache of feathers, sometimes with the bead addition, and the mosaic cape or collar. They wear two different types of headdress but not the "box" variety. The cape is also noted on figures on Columns 4WS, 5S, and 6WS, all of whom are Maya.

Sacrifice. The one who makes the sacrifice and the one who has his head cut off, as well as the persons behind these two, seem to change sides from panel to panel. Three panels match, for the most part, those directly opposite:

West Side

1. North: Maya victim—Ball—Toltec sacrificer
2. Center: Maya sacrificer—Ball—Toltec victim
3. South: Toltec sacrificer—Ball—Maya victim

East Side

4. North: Maya victim—Ball—Toltec sacrificer
5. Center: Maya sacrificer—Ball—Toltec victim
6. South: Toltec sacrificer—Ball—Maya victim

The Maya win twice (Panels 2 and 5), cutting off the heads of two Toltec; the Toltec win four times, cutting off the heads of four Maya. It is difficult to explain the pattern of the six panels. The Great Ball Court belongs in Chichen II, when the Toltec hold power.

It can be assumed that the losing side has supplied a sacrificial victim in the cult of the Dead Warrior. The decapitation has already taken place; the leader of the winning team holds a stone knife in his right hand and the severed head in his left. From the neck of the victim issue six serpents and, in their midst, an elaborate vine with buds and blossoms. The last may represent the lotus, an emblem of death. A very striking parallel to this victim appears on a *palma* from Veracruz (fig. 475). The glove, the possible yoke, and the quite evident *palma,* together with the padded knee, indicate a ball-player. The

vine with six serpents on the bench panel and the seven reptiles on the *palma* strongly suggest the Mexican god Chicome Coatl, "7 Snake," who is considered the goddess of vegetation.[165]

Yoke, palma, and hacha. These objects have long been recognized as important items associated, in most cases, with what is commonly called "Totonac" archæology.[166] There are a few which are closed at the bottom. The yoke has been found from San Luis Potosi in the north to El Salvador and Honduras in the south (see Thompson, 1941d; Palacios, 1943). Lothrop (1923) first suggested that the yoke was worn around the waist by a warrior. Ekholm (1946, 1949), who has added greatly to our knowledge of these stones, believes that it was the ball-player who wore it; he illustrates many figures. The yoke is part of the equipment of ball-players in many places.

If this association with the ball-player is correct, each contestant in our bas-relief wears a yoke around the waist, the so-called *palma* projecting upwards in front. It is most probable that these stone affairs were never worn in the actual game but possibly as part of the ceremonial observance of the sacrifice.

In some places a head is shown at the back of the yoke. Ekholm (1949) suggests the thin stone head, often called an *hacha* or axe-form and common as far south as El Salvador, was possibly worn in connection with the yoke and the *palma*. In fact, there seems to be a closer connection between the yoke and the *hacha* than between the yoke and the *palma* (Proskouriakoff, 1950, 1954).

One of the figures on the Copan "altar" (fig. 478) seems to be wearing a yoke with a head attached at front and back; the other player has a basket-weave yoke. This and the binding around the body of the ball-player on the Tepatlaxco-Orizaba stela (fig. 494) indicate that the yoke as worn in actual play may have been of some flexible light material.[167]

That these yokes were sometimes of wood or leather seems to be evident from those on Monuments 1 (fig. 487), 5, 6 (fig. 480), and 8 from Santa Lucia Cotzumalhuapa, which showed elongated perforations only seldom found in the stone type.[168] Sometimes the perforations are circular, as on Monument 4 (fig. 482), suggesting the possibly wooden form on the Chichen panels. It may be that this type, which has an animal head in front (fig. 483) and is carried by most of the Chichen players, may be the wooden yoke actually used in play, whereas the ceremonial form in stone is worn by the procession of figures in attendance at the sacrifice.

Other bench designs at Chichen. There is little information on these designs, the only complete record being on the Great Ball Court benches.

The court nearest in plan and panel design to the Great Ball Court is the one abutting the south wall of the Monjas. There are four panels on each bench. The two longer ones are in the center of both sides, three with six figures and one with five; the smaller end panels each carry eight figures, making 45 in all. From the notes kindly made available to me by John Bolles, the general design resembles that on the six panels of the larger court, but the execution of the carving is inferior.

As far as can be made out, there is a ball in the center of each design. A kneeling figure is at one side of each panel, but only one severed head can be discerned. The lower part of the design on one of the panels shows the knee-pad and the "slipper" on the feet of some of the players.

The court east of the Casa Colorada has three panels on each of its two benches and also one on the top wall. Both center ones, illustrated by Ruppert (1952, fig. 124,*b*,*c*) show a ball, a kneeling figure, and other players, one of whom has the panache of feathers at the back. A vine with blossoms can also be made out.

East of the Temple of the Warriors is a court with five panels on each bench and one on top of the perpendicular wall. On one panel can be made out a ball, an animal-headed figure, and an animal. On another is a kneeling personage, a figure with panache of feathers and part of a shield.

Other players at Chichen. There is some reason to think that the mummy-like figure wearing the mask of Tlaloc, in the center of Row B in the Lower Temple of the Jaguars (fig. 484), seen in connection with a feathered serpent and an altar, may represent a ball-player. He seems to be carrying a ball; he wears a yoke over an undergarment and has padded arms and padded right knee. It is probable that his sandals differ, one being the "slipper type." There are interesting features about him. He is wearing as part of his headdress and also as a breast ornament a plain disk which is probably of gold. Four feathers project from his headgear.

As one enters the Upper Temple of the Jaguars, two large-scale figures are seen directly in front of the door (Seler, 5:353). What remains of the fresco shows the circular disk on the hat of one of the personages. This disk is painted yellow. There are three feathers behind the plaque, each in a kind of holder, part of the feathered-serpent remains. Flames leap around the figure as they do around that in the lower chamber. It looks as if both figures represent the same individual.

Other players in Yucatan. The ball-player is noted on a clay whistle from Quintana Roo (Thompson, 1943).

Etzna. Another is on the late-Classic Stela 6 at Etzna (fig. 485). The player has a padded right knee and a binding suggestive of the Tepatlaxco-Orizaba figure (fig. 494); he seems to be kneeling on a ball-court bench. Two interesting figurines of ball-players, one of which is in the Campeche Museum, are illustrated by Toscano (1945).

Ichmul. There are two panels at this site, northeast of Chichen, on each of which two figures face each other. Of the three figures extant, each seems to be wearing the yoke of a ball-player. "It is rather difficult," writes Proskouriakoff (1950, p. 158, fig. 82,*a*,*b*), "to estimate the date of these panels . . . but one might refer them to the last half of the Late Classic Period on the basis of the headdress design."

Kabah. In the lower scenes on the two jambs in the Codz Poop (which will be discussed later in connection with the Toltec) there seems to be a sacrifice involved with a ball game (fig. 603). The one performing the operation wears a protection on one knee; another figure seems to be wearing a slipper.

Players in the Classic Maya area. *Copan.* Three markers were found below the latest floor of the playing field. One of these (fig. 478) has already been mentioned. Some of the players wear a glove; all wear the yoke with the undergarment. Two of the altars show the ball suspended by a rope from a frame.

Lubaantun. The three markers from this site have been mentioned.

Chiapas. A stela in Tonala shows a ball-player with gloved hand, knee-pad, and what is probably a yoke (Palacios, 1928a; Satterthwaite, 1943).

On an early Late Classic marker from Chinkultic is a player (fig. 486) who wears over the hips what might be a protective garment. Higher up, almost under his right arm, are three parallel objects; these have usually been considered yokes or substitutes for them.

On the Cancuen "altar" each figure wears the same device over a tunic or a long wrapped skirt. In spite of the weathered condition of the stones, two of the three pairs of players on the markers at Lubaantun are clearly wearing the same thing.

Usumacinta region. On the panel of a ball court in Str. K-6 at Piedras Negras are two players each with yoke and padded right knee (fig. 479). They may be holding balls. The yoke certainly looks to be of pliable substance.

At La Amelia on the Chixoy Stela 1 has a figure with padded right knee. He seems to wear a woven protection around his waist. It is on the bottom of this monument that a realistic jaguar appears.

At Seibal Stelae 5 and 7 each show a player with yoke, padded left knee, and arm protection. They have no sandals.

It is worth noting that the seven players noted from the two preceding areas are all found within a comparatively short distance of one another and, excepting those at Tonala and Chinkultic, in a fairly straight line leading southwest from Piedras Negras.

Other players. *Cotzumalhuapa region.* A ball court and a stone ring are reported by Termer (1930) at El Baul. Thompson (1948, p. 38) suggests that the northernmost court of the acropolis here has the general form of a ball court. He reports a ring at the Hacienda El Baul and also a possible marker. In the extensive series of bas-reliefs at this site and others in the vicinity, the omnipresence of death, both in entire figures and in severed heads, is even more noticeable than among the Aztec.

At Santa Lucia there are at least nine figures of ball-players wearing the yoke and showing other characteristics of the game. Practically all are represented as speaking; one of the two figures on Monument 10 indicates he has been defeated. Most of these bas-reliefs deal with death and sacrifice in connection with the ball game. Only one person (fig. 487) carries a stone knife, from which a speech-scroll issues. He wears a yoke with a head and elongated perforations. This seems to be tied with the body of a serpent. There is another yoke with ties below. He and four other figures, two of whom are Death, each carry a severed head. The back-ornament on the main figure is difficult to interpret.

The right knee of many of the personages on the stelae shows possibly a substitute for a pad. The sandals, when worn, are usually different for each foot. Five of the figures carry in one hand a human head, a death's-head, or a jaguar head; this seems, in some cases, to take the place of a glove.

Another of the stelae (fig. 488) shows quite a different scene. Here a player wearing his yoke and evidently holding a severed head seems to be appealing to the sky god, who has a headdress of two knotted serpents. His association with vegetation gives strength to the "fertility" thesis as a basis for the ritual. In front the head of a victim lies on a kind of rack; another may be in the basket at his back.

At El Baul, Monument 4 has four sacrifices; this has been discussed in connection with the Jaguar-Eagle cult (Thompson, 1948, fig. 5,*a*).

A carved jar from Esquintla shows a twice-repeated figure of a ball-player who seems to have played the role of executioner, as he holds a knife and a severed head (fig. 489). He may be wearing a yoke. His knee is padded and he may have on gloves. There is a suggestion that he is seated within a mask design with teeth below.

In the Department of Quezaltenango, at San Isidro, a *piedra parada* shows a personage wearing a mask and resting on one knee whom Thompson (1943c, pp. 104, 111a) considers to be a ball-player with his right hand possibly "encased in a glove such as ball-game players wear."

Tula. There are at least two ball courts here; probably more will be discovered on further excavation of this extensive site. From a ball court was recovered a carved stone bearing a bas-relief of a ball-player with elaborate feather headdress (fig. 490). He wears a nose bead and a yoke over a hip protection. His left hand is gloved and his right knee is padded. Another figure with padded knee was found (fig. 491). Each of these two personages has a different sandal on each foot.

Charnay (1887, p. 95) shows a "tennis-ring" from Tula.

Xochicalco. A ball court here has rings similar in profile to the one at Tula. The bas-relief has no panels like those at some of the other sites with courts. At either end of the wall forming the doorway, as now reconstructed, are sculptured designs each showing (Seler, 2: 146) only the bottom of a human figure. A garter is on the left knee. If the sandals on the two feet were different, one might have ventured the guess that these were ball-players, but they seem to have been warriors as the bottoms of shields are visible.

Veracruz. At Tajin there are at least three ball courts. The south one is justly famous for its four sculptured panels, one at either end of the two walls (Marquina, 1951, pp. 431–35; E. Spinden, 1933). The pattern is the same on all four: at the top, a celestial band composed of the interlacing figures commonly called "Totonac"; at the bottom, what Marquina calls "an earth serpent," another series of interwoven designs.

At the right or left side of each panel is an articulated figure of Death. In the northeast design, a somewhat similar creature is descending from the heavens over the main group. This sky deity is also on the southwest panel. On the other two a complicated mask occupies this place.

The southwest panel of the ball court (fig. 453) has already been discussed in connection with the Jaguar-Eagle cult. Two of the other panels, by their subject matter, are clearly associated with the ball game. Thus again we see the interrelationship of these two ceremonials.

At either side of the groups on the northwest (fig. 492) and northeast (fig. 493) panels are cross-sections of a ball court. Each has a bench, a sloping wall, and, at the top, instead of a perpendicular wall, one sloping outward at the top.

The design on the northwest panel is composed of two ball-players conversing. Each is provided with yoke and *palma*. One seems to be wearing an *hacha* and a human face at the back of the yoke or belt; and the other has a knot at the back. One has a stone knife; the other, the attitude of submission with arms crossed. Seated on the wall at the left is a figure with a grotesque mask behind him; kneeling on the wall at the right a human figure with animal head. The articulated figure of Death is at the right. This panel may portray the same sacrificer and victim pictured in the corresponding panel.

The northeast panel shows three ball-players, each with yoke, *palma*, and knotted design at the back. This scene of human sacrifice resembles that on each panel of the Chichen bench.

The sacrificer is talking as he prepares to thrust a stone knife into the body of the victim, who, held by the third player, sits on the sacrificial stone. A fourth figure is seated on top of a ball-court wall. A large mask in profile appears behind the assistant and above the seated participant. Here articulated Death is at the left. The scene shows the result not of battle but of a local contest between two members of what may be the same group. The padded arm and knee and the sandal are absent. On this panel all three figures wear a bead garter similar to that worn by the Maya on Disk D from the Sacred Cenote.

The southeast panel (Marquina, 1951, p. 435) does not seem to be directly involved with either the Ball Court cult or the Jaguar-Eagle cult. The general layout of the design is like that of the three other panels, but here warfare is indicated by the central figure, who is being presented with three spears by a seated individual. No speech-scroll comes from any of the three persons. A stylistic tree is at the left; at the right, a second seated personage with an elaborate grotesque mask above his head.

On a stone unearthed from near the base of a pyramid (fig. 495) is a ball-player with yoke and padded knee, his face inside the beak of what may be an eagle. At the top are a jaguar and the ball. The stone is said to date from the Late Classic, and yet there is the ball court and, possibly, a relationship with the Jaguar-Eagle cult. The style is very close to that of the Aparicio *palma*. A stone of the same shape from Jalapa shows what could be an eagle (Lehmann, 1922, p. 22).

At Tepatlaxco, near Orizaba in Veracruz, we have already noted a stela (fig. 494) depicting a bearded ball-player—right arm bound with tape, right knee padded, each foot differently shod—being prepared for a contest. Instead of wearing a yoke, he seems to be having his waist wound by rope or tape. As on one of the figures from the Piedras Negras court, it is clear that a woven belt is sometimes worn around the body.

There are several *palmas* from this district but almost none with strictly archæological setting. Their complicated designs, along with those on yokes and *hachas*, have been excellently handled by Proskouriakoff (1954). It is the *palmas* connected with human sacrifice and the ball game that interest us here. Figure 496 shows a sacrifice taking place; figure 497, also from a sacrificial scene, gives a detail from a complicated design of a dog, a deer, and a rabbit, as well as a bat coming from the sky. A *palma* from Coatepec, Jalapa (fig. 498), shows a victim of sacrifice. On the other side of this stone (Lehman, 1922, p. 23; Proskouriakoff, 1954, fig. 8) the bent knee comes up to the girdle. Lehmann thinks the hair is dressed like a plaited grass-tuft, "perhaps as a receptacle for the agave-leaf thorns smeared with the sacrificial blood." This woven headdress is common on Chichen figures. The design on the back of a *palma* (fig. 500) may depict a ball-player whose face is inside the beak of a bird. He carries a knife in one hand and the head of the victim in the other, a scene common at ball courts. On a *palma* in the Detroit Institute of Arts (fig. 499) the figure of Death is seated on a victim below cornstalks, an instance supporting the theory that fertility is connected with the game. Finally, Death appears again on a *palma* where a bird is pecking at a skull.

Tenochtitlan. It is principally from the Valley of Mexico that we get the most complete accounts of the ball game (Stern, 1948, pp. 46–47), although no courts have been found here. Sahagun writes of two courts at Tenochtitlan and shows one in the sacred enclosure (fig. 410) that Marquina (1951, pl. 55) follows in his restoration of this place.

A stone figure of what may be a ball-player from the Escalerillas wears only a breechcloth and has none of the habiliments found on most of the players noted here (Seler, 2: 890).

11. ARTIFACTS

We have reserved the identification of objects from the Cenote of Sacrifice in relation to their background for Chapter V. At this point we are interested in their distribution on the basis of comparative Middle American archæology and consider only a few outstanding examples in each class of object, all falling within the stages of Mexican history in Yucatan and corresponding periods in other parts of Middle America.

Ceramics. We are concerned both with local wares used during the Mexican periods and with wares more or less widely distributed.

Chichen. The most common types of pottery at Tula, Coyotlatelco, and Mayapan do not appear at Chichen. Linné (1942) suggests this may be due to the fact that the Toltec invaders of Chichen did not bring their wives, who, presumably, were the pottery makers.

Two types of ceramics, foreign to both Tula and Chichen, reached these sites by trade in post-Classic times: Effigy Plumbate and Fine Orange X (see Thompson, 1941a, for references). Brainerd places both of these in his "Early Mexican." Effigy Plumbate is perhaps the most important diagnostic of a wide area in post-Classic times. It is found from Nicaragua and Honduras in the south to Tepic, Nayarit, Mexico.[169] The largest concentration of Plumbate is in Salvador and Guatemala.

A collection of 178 Plumbate sherds from Chichen was selected by Brainerd for examination by Shepard. With one exception (the Akabtzib) they came, as would be expected, from 11 structures or localities where remains of construction in Mexican times were found. They seem to have belonged to pottery of various shapes: animal and human effigies, including the head of a bearded man, legs, arms, a jaguar or a "dog" with nose bead.

There are two types of Fine Orange pottery: X, associated with Plumbate and generally contemporaneous with it; and Z, which is earlier, coming mainly from Yucatan-Maya Puuc sites Over 1000 sherds of X were found at Chichen (described and illustrated by Brainerd, 1941); their forms vary and they carry both painted and incised design. A third type of Fine Orange, a "four-color polychrome" represented by only five sherds, is similar to the Fine Orange found at Isla de los Sacrificios. "One vessel" from this site is identical in form and style with the Chichen fragments.

Vaillant (1927) found sherds of both wares near the east wing of the Monjas. They undoubtedly come from the Toltec Annex which belongs in the late Stage B″. In another late Mexican court south of the House of the Phalli were other sherds of the two types (Thompson, 1941b; Vaillant, 1935a).

Brainerd has kindly furnished me with the following analysis of the local pottery at Chichen and of the position of the two great trade wares, Effigy Plumbate and Fine Orange X.

Early Mexican substage
Diagnostic wares
Mexican Medium Slate ware
Mexican Medium Red ware
Plumbate ware
Chichen (X) Fine Orange ware

This ceramic assemblage is predominant at Chichen Itza in and about the standing buildings, and forms an overwhelming proportion of all the pottery from the site.

Middle Mexican substage
Diagnostic ware
Coarse Slate ware

Found in what seems to be occupational debris at the Monjas East Group, Temple of the Wall Panels, and in the Southeast Colonnade (to the east of the Mercado); in the bottoms of trenches at Mayapan, and in small mixed collections from other sites. This ware is not recorded as antedating any construction at Chichen, and constitutes only a very small percentage of the Chichen Itza ceramic sample. Thus its use would seem to post-date the contruction of all buildings at Chichen Itza from which there are, at present, ceramic samples.

Late Mexican substage
Diagnostic wares
Coarse Red ware (Vaillant's Red Lacquer)
Mayapan Fine Orange ware

The main occupation of Mayapan was during this period. It is represented at Chichen Itza by surface debris, often postdating the fall of buildings, and as a major constituent in the Cenote material.

Brainerd's Early Mexican should correspond to our Chichen II; his Middle Mexican, primarily to Chichen III. Unfortunately, this is not borne out by our present knowledge. Both Chichen II and III, according to his analysis, fit within his Early Mexican period. As already pointed out, he does not know of any building at Chichen Itza that can be assigned ceramically to Chichen III. Thus pottery, for the present at least, does not serve to differentiate the two eras.

Tula. Table 9 lists sites which correspond to the Mexican periods at Chichen or "Chichen Nuevo." These sites are all post-Teotihuacan and are placed chronologically with Tula, Los Sacrificios, Xochicalco IV, Monte Alban IV, and many others succeeding them.

In the Federal District there is a site in Santiago Ahuitzotla which was excavated by Clarence Hay and myself in 1913. At this time, the lowest strata were thought to be Toltec, but it was pointed out that a special type of flat figurine and of pottery were definitely localized here. They were called Coyotlatelco, "hill of the coyote," the name given the site by the natives. Since then, this pottery has been found in other places, and is now generally accepted as occurring in the first phase of Tula. It is probably slightly later than Teotihuacan V, found in the general vicinity, but earlier than the Mazapan type which was at one time considered to be the only one at Tula. It seems probable that Aztec I also comes into the picture.[170] Noguera (1950) speaks of the typical ceramic complex at Tula as Mazapan-Coyotlatelco-Azteca I. The order might perhaps be changed to Coyotlatelco-Mazapan-Azteca I.

The distribution of these types in the Valley of Mexico, Toluca, and Morelos is given by Jacobs Müller (1951). Coyotlatelco in the east includes Teotihuacan, Chiconautla, Chalco, and Xico; in the south, Gualupita; on the west, Palo Alto, Chalma, and Malinalco. Its limits on the southwest of Mexico state are not known. Xochicalco may have been the place of origin with two roads to the north, one by way of Toluca and Ixtlahuaca to Jilotepec and Tula, and the other by Culhuacan to Teotihuacan. The distribution of Mazapan centers in the north and east of the state of Mexico with a focus at Teotihuacan. It is seen at Tula and surrounding sites. Its most southern limits are Xico and Chalco. Jacobs Müller considers that the red-on-cream or orange had an origin in Xochicalco. The region which today corresponds to the states of Mexico and Morelos was divided into two zones: Coyotlatelco, Matlatzinca, and Mazapan on the one hand; and Aztec I and II on the other. In the east Matlatzinca included Teotihuacan, the Federal District, and the Valley of Morelos to Tepoztlan, passing Gualupita, following the road in the mountains of Zempoala, Chalma to Malinalco. In the north it was found in Ixtlahuaca, Jilotepec, and Tula.

Isla de los Sacrificios. Here and at Cholula, Fine Orange X occurs with some frequency but, as pointed out by Brainerd (1941, p. 180), "it appears to be very scarce in comparison with polychrome of the Cerro Montoso Group." Brainerd names other contemporaneous places: Cerro Montoso, sites in Los Tuxtlas, Veracruz, "various sites excavated by Stirling in Vera Cruz, western Tabasco, Centla and in the island of Jaina."

Du Solier (1943, p. 68) finds two periods in the pottery at Isla de los Sacrificios. The first, found below the stucco floors and derived from burials, closely resembles Mazapan; the second "embraces all vessels of Fine Orange, those of cream clay, those tentatively placed in Aztec I [and even extending into Aztec II] and the polychrome and incised wares."

An interesting link to a series of vessels with central perforation is shown by Thompson (1941a, p. 14). The first example, now at the Peabody Museum, is of alabaster and said to have come from Mitla; the second, of Plumbate horizon, from Chipal, Alta Verapaz (Butler, 1940); the third, Fine Orange, from Atatlan, also at the Peabody Museum; and the fourth, a Cerro Montoso ware from Isla de los Sacrificios (Joyce, 1914). It would seem as if this equates with Fine Orange, Plumbate, Cerro Montoso, and the Tecali type described.

Tajin. In the last phase here (III), analogous to Las Flores and Panuco V in the Huastec, can be noted the influence of the Tula-Mazapan. No central Mexican elements seem to have reached Tajin before that time (Du Solier, 1945).

Spindle weights. The textile arts seem to have been cultivated in all periods of Middle American history. Weaving and the implements of weaving are shown in several codices (Madrid 79c). Elaborate weaves and embroideries can be seen, especially on the clothing and ornaments of personages, on the stone carvings of the Maya Classic period (Spinden, 1913, pp. 146–50; Tozzer, 1941, p. 291).

Unlike the situation in Peru or in our own Southwest, the Central American climate was unfavorable to the preservation of textiles in this part of the world. Submerged under water at the Sacred Cenote, however, a considerable amount of woven material remained intact; the colors have disappeared but the techniques of the weave are easily made out.

Clay weights, formerly attached to the wooden spindle, are today the most abundant relics of the textile art.

Classic stage. It is perhaps significant that in Vaillant's Zacatenco and Ticoman stages the spindle whorl is hardly mentioned. In his Gualupita the few noted came in Gualupita III, and, of those illustrated, most of them are from the surface.

At Kaminaljuyu only one was found. Kidder (in Kidder, Jennings, and Shook, 1946, p. 216) writes, "None, so far as we know, have been found in any Middle Culture site and in some

areas they were little used in the Classic Period." Perforated pottery sherds may have served as substitutes; wood may also have been employed.

At Teotihuacan a surprisingly small number of spindle weights or *malacates* have been pictured. Beyer (in Gamio, 1922, vol. 1, pl. 137,*a*) shows all 14 in the museum at this site.

Chichen. "About a hundred spindle whorls came to light," writes Kidder (1943a), "during the excavations by Carnegie Institution in various parts of Chichen Itza." All seem to be from the Mexican periods here or from the Maya Monjas which was used after the Toltec arrived. On the 26 specimens bearing a realistic design there were 21 birds which might be called eagles (fig. 501, upper rows), four monkeys, and an incised figure of the crested serpent, Xiucoatl. Of the 33 with a conventionalized design (fig. 501, lower rows) 18 had four divisions or segments which might be classified as a sun symbol, and 10 had rosettes with designs of more than four divisions or petals. Those carrying either the "sun" or the "eagle" constituted over 67 per cent of the whole number found, and may indicate a relationship with the Jaguar-Eagle cult.

From the Sacred Cenote four spindle whorls of pottery, one of wood, and another of some very light substance were recovered along with two shell specimens, used either in spinning or as beads.

Mayapan. A specimen found here by Brainerd and noted by Kidder was decorated with an eagle. All others seen here so far are either plain or ornamented with a ring design.

San Jose, British Honduras. Associated with the last period here, Thompson (1939, pp. 153–54, 167) found on the surface marble whorls, incised pottery whorls, and three painted with asphaltum. This type of decoration, the author recalls, is noted on *malacates* from the Huasteca where asphaltum is a natural product (Ekholm, 1944, p. 467).

Valley of Mexico. It is most unfortunate that the numberless weights used for spinning from the Valley of Mexico and surrounding areas have, with few exceptions, never been published.

"The Aztec spinner," writes Vaillant (1941, p. 151), "rested the end of her distaff in exquisite little cups. . . . Her spindle weights were also made of baked clay. In the fourteenth century these were heavy and had holes large enough for a heavy spindle. Often their burnished black or red surfaces were cunningly adorned with stamped or incised designs. . . . In the fifteenth century the spindle weights became much smaller, so that at times it is hard to distinguish them from beads."

Isla de los Sacrificios. Du Solier (1943, p. 80) shows eight whorls with geometric and zoomorphic designs, possibly two eagles among them.

Huasteca. Ekholm (1944, pp. 459–67) has reported on the large collection he made in the Panuco region. Most of them are molded; the designs are far more complicated than those from Chichen: humans, monkeys, bats, jaguars, eagles, as well as the sun and rosettes. Some have asphaltum decorations on the lower surface (see Seler-Sachs, 1916).

PIPES. *Classic stage.* On a famous bas-relief at the side of the entrance to the shrine of the Temple of the Cross at Palenque a priest seems to be smoking a tubular pipe. A few pipes have appeared in archæological investigations in the Maya area. One, a clay-bowl kind of pipe with mouthpiece ending in a foot, was found in the Ulua Valley and is now in the Peabody Museum.

Chichen. In digging a trench between two columns near the south end of the Northwest Colonnade Morris encountered on Floor 2 a clay pipe "which showed that it was intentionally hidden after being broken." It consists of a bowl resting on a flat stem decorated in appliqué; in front of the bowl is the head of a stylistic bird (fig. 502).

Tula. A pipe (fig. 503), also with an appliqué, probably of a serpent, was found here along with Mazapan ceramics under the floor of Edificio 3. In front of the bowl is a crude human foot, reminiscent of the Ulua specimen.

Mexico. Pipes are very common in Guerrero and neighboring states. In any collection of Aztec archæology they can be found, usually made of polished red ware.

Codices. In Madrid 79b two figures of God B and one of Death, lying on their backs on the glyph for ground (Caban), seem to be smoking or blowing smoke. In Madrid 87b God B and another god are doing the same thing with a pipe.

Landa. On the rite of child baptism, the Bishop (1941, p. 106) writes: "Behind him walked the rest of the assistants of the priest, holding a bunch of flowers and a pipe, which the Indians are accustomed to suck and with each one of these they threatened each child nine times, and afterwards gave each in turn the flowers to smell and the smoke to inhale." [171]

INCENSE. The Maya used copal, rubber, chicle, and a resin called *puc ak* as offerings to the gods. To these the Aztec added wax and a bitumen (*chapopotli*). The most common incense among both peoples was copal, from the Nahuatl *copalli* or Maya *pom;* it is a Burseracea, *Protium copal* (Tozzer, 1941, pp. 317–18). This subject is discussed in Chapter VI-3.

Copal and rubber. Here we are concerned with copal and rubber as represented in the manuscripts and found in archæological deposits. Flint points from the Sacred Cenote at Chichen (fig. 504) have at their base remains of a pitch, probably rubber, that served as an adhesive for attachment to shafts. Other flints were undoubtedly inserted in balls of copal, as evidenced in the excavations of the Escalerillas at Tenochtitlan, where flint points were found attached to balls of copal (Batres, 1902, p. 33).

It is not improbable that the pouches carried by some of the priests were containers for copal (Seler, 2:141, 145). The bag held by the Xochicalco figure (fig. 308) may have been one. It is difficult to determine the use for the large elaborate bags carried by the Toltec on the South Temple of the Great Ball Court.(See Chapter IV, where bags and other receptacles are considered.)

Chichen. In addition to the incense recovered from the Sacred Cenote, balls or pellets of copal are undoubtedly indicated in several of the offerings contained in shallow dishes on the Temple of the Warriors fresco (Morris, 1931, fig. 322,*d*) and in those carried by the Donors (figs. 673, 674) on the columns and in other bas-reliefs.

Tula. The same material seems to appear here, although it is often difficult to discern copal from the implements for sacrifice (figs. 675–77).

Codices. In the Maya manuscripts flaming balls of copal and rubber are carried by the gods (Madrid 36b, 82c, 83c; Dresden 110b). A basket of copal is pictured in Magliabecchiano 32. Copal, both crude and refined, appears in the Tribute Rolls.

Modern use. The Lacandon use copal in all their rituals. Nodules of it are first offered to the gods, then distributed in *braseros* or idols, and finally burned (Tozzer, 1907, p. 125). Many of the Roman Catholic population in the country districts throughout Latin America burn copal as incense to their saints in their homes and churches.

INCENSE BURNERS. *Braseros* are widely distributed in almost every period of Middle American archæology: from the familiar stone vessel resting on the head of a seated figure of an old man associated with Teotihuacan, to the crudest of clay figures appearing in the latest archæological period on the East Coast of Yucatan, and on down to the present-day Lacandon (Lothrop, 1924, pp. 60–62; Tozzer, 1907, pls. 15–17; 1941, p. 314).

Chichen. At the Caracol, Ruppert (1935, figs. 174–80, 331) excavated 58 limestone incense burners, all much alike, with a human face on one side and a cavity at the top. It seems fairly certain that some of them had been originally placed along the parapet of the upper platform, as well as on the lower level. A clay *incensario* was discovered at the entrance to the inner chamber of the West Annex. The red bowls with three short legs found in the talus of the Caracol are like those recovered in considerable number from the Sacred Cenote, many of which contained copal. Perforated bowls of incense burners with handles are also in the Sacred Cenote collection at Peabody Museum.

Tula. Both bowl and plate shapes of handled *braseros* were found here (Acosta, 1945, fig. 20). The type called Naranja-Brochazos is similar to the dishes just described from the Sacred Cenote at Chichen. Acosta (1944, fig. 22) shows a jar, often used as an incense burner, with roughened surface, and called the "'pastillaje" type.

Valley of Mexico. The handled, perforated-bowl incense burner is found, among many places, at Tenochtitlan and at Isla de los Sacrificios. A polychrome perforated-plate type is associated with the Escalerillas.

Oaxaca. The plate and the perforated-bowl types both appear in this region.

"MARBLE" VASES. *Tecali,* the name commonly used for these jars, is derived from a town in Puebla where this stone is abundant. These vessels of onyx or alabaster all seem to belong to the post-Classic or Mexican periods, along with some of the other members of the complex: Effigy Plumbate, Fine Orange X, Nicoya Effigy Polychrome, and copper.

Centers of manufacture. One area seems to have been around Isla de los Sacrificios, near Veracruz, and into Oaxaca (Thompson, 1941a, p. 43). Another center was the Ulua Valley, Honduras (Stone, 1936). Imitations of the ware were encountered in the Bay Islands, Honduras (Strong, 1935).

Chichen. A vessel of this type was found by E. H. Thompson in the cave burial under the High Priest's Grave along with copper bells and a late *brasero.* Sherds from another vase of the same material, incised with a woven design, were taken from the Sacred Cenote.

Uxmal. The five vases from a cache in a platform or tribune in front of the House of the Governors may date all the objects found with them as being in the Mexican period.

British Honduras. Remains of vessels of this type have appeared at San Jose, British Honduras, Period V.

Costa Rica. From the Nicoya peninsula, Lothrop (1926, pl. 19) shows a "stalagmite" vessel with animal head and feet, in form related to the "more beautiful" vessels from Isla de los Sacrificios, in material related to the marble jars of the Ulua Valley. A typical calcite has lately been reported from this country.

Guatemala. From an Early Classic mound at Nebaj comes a marble bowl; from a post-Classic mound, a magnificent melon-shaped vessel and a Tohil Plumbate jar (A. L. Smith and Kidder, 1951, p. 51, fig. 83). There are also examples "from a very late deposit" at Uaxactun, "on the surface" at Kaminaljuyu, Alta Verapaz, Zaculeu and Tayasal in Peten (Kidder, 1947; Thompson, 1941a).

Mexico. Batres (1906, pl. 3) found two plain onyx vases near Teotihuacan but associated with Plumbate vessels, which place them together chronologically. At Taxco was a sherd from a carved jar made of the same material.

Veracruz. In addition to the large number of these specimens associated with Isla de los Sacrificios, three of the several sites where they occur are Soncuautla, Jalapa, and Los Tuxtlas. This type of vessel is often labeled as "Totonac" or "Veracruz" (see Bliss, 1956).

Oaxaca. Tomb 7 from Monte Alban V contained one of these vessels; another was found at Xoxo. At Coixtlahuaca is one with three feet, each the head of an animal.

JADE OBJECTS. The numerous jadeite beads and carved amulets recovered from the Sacred Cenote are to be the subject of a special study. These, as well as the relatively few jades found in caches in the Caracol, the Castillo, the Castillo *sub,* the High Priest's Grave, the Temple of the Chac Mool, the burials at the corners of the Temple of the Warriors, the various colonnades, and the Mercado, are all significant in our comparative study. Tozzer (1941, p. 278) discusses jade and Landa's "precious stones."

Classic stage. Just as the character of the textile art of the Maya can be determined, to a great extent, from the stone carvings, so the use of jade and other stone decoration can be seen on the ornaments worn by figures on stela, lintel, altar, and other places–headdress, nose and ear beads, necklace, breast ornament, belt, and garter.

Archæology constantly verifies the almost universal custom of burying objects of value with the dead. An excellent example is in the tomb of the unknown hero lately discovered at Palenque. Here were found the actual jade ornaments worn by the priest or warrior at the time of his death. Lothrop found the same situation at Coclé.

Chichen. There is no question that generally Late Classic jades from the south were in actual use in Chichen II and III, both as decoration and as ceremonial objects. These jades, mostly from the Sacred Cenote, have two orientations. One group, probably including most of the amulets and beads, seems almost entirely Late Classic with a southern origin. The designs and the composition on the tablets are generally traced to the Usumacinta Valley, as Proskouriakoff (1944) found in her study of a jade head from the Cenote. This has a hieroglyph inscription of an unconnected Calendar Round date in the Long Count. By comparing its style with definitely dated monuments at Piedras Negras, she considers it was carved there between 9.13.15.0.0 (707) and 9.14.15.0.0 (726).

There are a few jades from the Cenote which are definitely later and must have come from Mexico. Among them are amulets and carved beads, some of which are illustrated here. One is part of a feather-decorated serpent (fig. 130); others are a Toltec with his *atlatl* and a serpent (fig. 131), part of a human sacrifice (fig. 397), and a carved bead with serpents (fig. 124).

In Chapter IV several notable jade and other specimens, all belonging to a recognized type and from widely separated localities, will be described.

Mosaic work. Turquoise, shell, and sometimes coral, obsidian, pyrite, and jade have been found in the mosaics. These works of art date from Early and Late Classic; many are connected with late cultures in Mexico. Saville (1922) published an excellent treatise on them and included lists of loot mentioning mosaics sent back to Spain by the early *conquistadores*. The most common form is a plaque or shield with a design of turquoise and shell built up on a wooden back. The preservation of some of these is due to the fact that they were enclosed in stone receptacles. The wooden backing is sometimes still intact, as well as the usual sandstone disk in the center, often encrusted with pieces of pyrite. Kidder (in Kidder, Jennings, and Shook, 1946, pp. 126–33; in Smith and Kidder, 1951, pp. 41–43) discusses the distribution (Panama to northern New Mexico), periods, and types of pyrite plaques, mistakenly called "mirrors" (see Tozzer, 1941, pp. 292).

The remarkable mosaic mask of jade covering the face of a "prince," lately discovered at Palenque, has already been mentioned.

Chichen. Four mosaic plaques have been found here, dating from the Mexican period. All were special offerings put with other objects in stone receptacles and deposited in places of ceremonial importance. They have a fairly similar design, a kind of sun disk with four heads of the serpent as represented by the god Xiucoatl. The first of these shields (*teotezcacuitlapilli*) to be discovered was in a stone cist before the altar of the Temple of the Chac Mool, along with a jade bead and the bones of two birds (Morris, 1931, p. 186). The three others were found during excavation of the Castillo *sub:* one rested on the back of the red jaguar in the inner room of the temple; two were in a circular stone box under the north stairway of the Castillo. With them were two flint knives, jade beads, and carved pendants (Marquina, 1951, p. 853). The Chac Mool and one of the Castillo specimens had scalloped edges. Fragments of a fifth came to light with the altar of the Northwest Colonnade. Remains of two stone disks were in caches at the north corners of the Temple of the Warriors, two at the North Colonnade, and one of pottery at the Northeast Colonnade (Morris, 1931, pp. 181–85).

There seems little doubt that mosaic plaques were thrown into the Sacred Cenote, from which two wooden sceptres were recovered. At the top of one of them is a face covered by a gold mask with remains of mosaic work on the headdress. The face of the other figure shows that it was once covered with mosaic similar, perhaps, to the faces of Maya shown on the Lower Temple of the Jaguars (Columns A8, A17) and on the fresco of Temple 1 at Tulum. Both these wooden wands may have been aspergilla, said by Landa to have been used by the priests (Landa, 1941, p. 105). A third specimen is a wooden rattle still bearing a few pieces of mosaic decoration. An imitation in wood of a jaguar tooth covered with mosaic was also recovered. Saville (1922, pl. 3, figs. 9, 10) illustrates some of these specimens.

At Uayma, Yucatan, the back of a "mirror" was found. Inside a circle of glyphs are the figures of a bearded man and another man who seems to be carrying a burden. Above them is a bird.

Metals. *Gold and the Spanish conquest.* Landa bears out the well-known fact that the primary purpose behind the early navigators who followed Columbus to the New World was treasure. He writes (1941, p. 207), ". . . when Francisco Hernandez [de Cordoba] and Grijalva came to Cotoche [on the northeast corner of Yucatan], they did not go to disinter the dead but to seek gold among the living." At Las Mujeres Island, Cordoba was to some extent successful in his quest, for (*ibid.*, p. 10), "They found there various objects of gold, and they took them away." When Cordoba returned to Cuba (*ibid.*, p. 12), ". . . he represented the new land as very good and rich on account of the gold which he had found in the island of Mujeres." This false report played a great part in the avidity with which later explorers set out for Yucatan. In the time of the Montejos, when the truth became known that the peninsula contained neither native unworked gold nor other metals, much open dissatisfaction was expressed by the soldiers engaged in the conquest of Yucatan.

Las Casas, called "the friend of the Indians," characteristically observes (1646, p. 363), "The country produces no gold, and if it had, he [Montejo] would have used up the people by working them in the mines; to coin gold therefore out of the bodies and souls of those for whom Jesus Christ died." The good Bishop was probably right, as Herrera (IV, 7, 12) tells us, "The *Adelantado* [Montejo] . . . discovered the secrets of the land and he hunted for mines although he found them in no part of the country."

In addition to Cordoba's find of gold objects in 1517, in the next year Grijalva acquired treasure on the gulf coast; and in 1519, Cortés found gold ornaments on an altar at Cozumel (Landa, 1941, pp. 13, 14). These, of course, were not produced in the country but acquired by trade.

Arriving in Yucatan only three years after the final conquest of the peninsula by the Montejos, Landa well knew there was no metal in the country. He speaks (1941, p. 18) of the lack of metal tools with which to work the well-hewn stone of "the many beautiful buildings" and (p. 111) of the lack of "idols of metal." Hence his statement (p. 181), "And so if this country had possessed gold," it would be found in the Chichen well.

Metallurgy in Middle America. The archæological and chronological aspects of metals have been most adequately covered by Lothrop (1952) and Saville (1920).

Except for a few doubtful specimens, gold in Middle America is contemporaneous with post-Classic times. Copper seems to have arrived in El Salvador before the end of the Great period. Copper and Effigy Plumbate and Fine Orange ceramics form an important complex dating from the beginning of the Mexican periods.

Chichen. In only a few caches and burials have copper objects been found; jade is more common than copper in the tombs and in other places. Considering the abundance of metal objects dredged from the Sacred Cenote, it is remarkable that so few have been found in the ruined structures. For purpose of comparison the most important objects in the whole Cenote collection are the gold and the gilded sheet-copper disks, whose value is in their repoussé designs. The first group have been placed in Chichen II; the second, in Chichen III.

Lothrop (1952, Table XXXVII) lists types of metal objects from the Cenote according to the period to which he thinks each belongs. I should remove the "horse collar" entirely from the Great period. From the character of the designs, there is no question but that all the repoussé work on the gold plates was done in the Tula-Toltec period along with those bearing "the battle scenes." I should also add to this class the gold masks, especially that of Tlaloc.

Just as we can classify the architecture as Chichen II and III, we can likewise differentiate the metal. The gold embossed plaques portraying Classic Maya and Toltec belong to the Tula-Toltec period. It is very probable that they were decorated at Chichen; none has been found anywhere else. Most of the objects of gilded sheet copper belong to Chichen III. The sun and moon glyphs are similar to those in the Maya codices, and the embossed disks of this material show characteristics of the late fresco at Santa Rita. Mexican copper bells are also post-Toltec.

Our study of the ethnological significance of the personages shown at Chichen has leaned heavily on the gold plaques depicting Toltec and Maya, as well as on the bas-reliefs and the frescoes.

The analyses of the Cenote specimens, comparisons with the composition of objects of known provenience, and proof of extensive trade are covered by Lothrop (1952). The subject of trade is considered in Chapter VII.

Tula. No metal has yet been found at Tula but in Texmilincan, Guerrero, it appears with Effigy Plumbate and Fine Orange X, along with examples of *tecali* ware (Casco, 1941).

Textiles. *Chichen.* As these are limited to the Cenote collection, they are considered in Chapter V-6.

IV

ETHNOLOGY

1. MAYA AND TOLTEC

In the preceding discussion of art and architecture, frequent references have been made to personages identified as Toltec or as Maya. It is important to note that Chichen, as does practically no other site in Middle America, offers the opportunity to make this ethnic distinction. Identical Mexican warriors are found at both Tula and Chichen, but almost no Maya occur at Tula. The movement was all in one direction, from west to east. On the other hand, Maya warriors, contemporaneous with Toltec, appear at Chichen, in many other Maya sites having bas-relief, and in the Maya manuscripts. In the Maya area outside Chichen there are suprisingly few Toltec: on Stela 14 at Uxmal and on the jambs of Str. 2C6 (Codz Poop) at Kabah, to name two occurrences.

This unique situation seems to strengthen the historical theory that Mexican invaders actually entered and conquered Chichen, whether or not by violence is unknown. There was undoubtedly more than one invasion. Actual conflicts, probably local, are few so far as pictorial record indicates. Let us consider them and attempt to identify the individuals on both sides.[1]

As in Chapter III, our main basis of comparison in studying the Toltec at Chichen is the corresponding evidence at Tula. At both sites the Mexican warriors are invariably identical. For study of the Maya as they appear in the iconography of Chichen II and III we have wider resources in time and in place. There is much comparative material, especially in the Late Classic and mainly in the Usumacinta Valley and at Naranjo in the Peten. There is no complete agreement among the Maya figures in these places, but many features of their dress and accoutrement are very much alike.

Facing of Individual Figures on Columns

Before considering the ethnic components in the structures at Chichen assigned to the Mexican stages, let us look at the general pattern of position taken by individuals on the columns.

Two- and four-column buildings. If there are two columns, as at the entrance to the Lower Temple of the Jaguars or in the inner room of the Castillo, the four figures on the sides face the entrance front; those on the back and front each turn toward the center of the room. The same arrangement obtains in a four-column structure, such as the High Priest's Grave, and on the four sculptured columns at the altar in the Northeast Colonnade. In the temple opening from the colonnade at the Xtoloc Cenote, the inner and outer jamb figures face the front; those on the two columns turn as just described.

Temple of the Little Tables. So far as we can determine, the figures on the four columns at ground level and on the four in each of the rooms in the temple above follow the same arrangement, the center of attention being the front or medial line running from the back to the front of the building.

Castillo. The three figures on each of the pilasters of the entrance, and the five on each set of jambs and pilasters of the inner room, all face the center of the doorways or the front of the structure.

Temple of the Jaguars. In general, the facing of the jambs and pilasters follows that of the Castillo.

Temple of the Chac Mool, the Temple of the Warriors, and the Northwest Colonnade (Morris, 1931, figs. 147, 170, 171). The same pattern is carried out in these three structures. There seems to be an imaginary line running east and west, from the front to the back of the buildings through their middle axis. Barring a few exceptions, in the two first buildings the front and back figures on the columns in both halves of the structure face the center line; all the side figures (north and south) are turned to the entrance front or west side. In the Northwest Colonnade, however, this plan is only partially carried out. To the left or north side, the arrangement is similar to that in the other two buildings. To the right of the axis the first two lines of three columns (31–37), running east and west, conform, but there is a secondary axis passing through the center of the altar north of the stairway. The front and back figures in the first line of columns (38–41) face this new center and the personages in the same positions in the five lines of columns (42–61) to the south face north and the medial line. As in all the other cases, the individuals on the sides (north and south) of the pillars face the front or west side of the structure (Morris, 1931, pp. 266, 268).

The only difference here seems to be among the 32 prisoners before the stairway in the Northwest Colonnade. The side figures on each of the eight columns face the stairway to the temple above but the front and back personages face, in each case, away from the east-west axis. The significance of this change in pattern is difficult to determine.

South Temple of the Great Ball Court. The same directions to right and left of the axis are taken by the figures on the front and back of the six columns, but in the three east ones the figures on the east side of the center line face the back and those on the west side face the front. Exactly the reverse obtains for the side figures on the three west columns.

North Colonnade. The 13 square columns in the front row are sculptured. According to the usual plan, the axis would run north and south at right angles to the dais, placing eight on the left and five on the right. At least three probably once completed the line. All 13 are Toltec except Column 8, which is just left of the line of the axis. From the facing of the figures, this line breaks between Columns 8 and 9. So far as the east and west sides of the columns go, those to the left usually have figures facing out; the five to the right, facing in. An unusual feature is the fact that the front and back personages all turn toward the west.

No difference in plan seems to be made in the structures in Chichen II or III or in those where the figures are primarily either Toltec or Maya, with the single exception of the Maya prisoners.

Chichen II and III

It is of some importance to study the distribution of Toltec and Maya personages, their presence or absence in certain structures, their position in any building where they are depicted.

The chronological sequence of the erection of these structures gives to the two groups a historical significance.

There follows a short review of the main ethnic features classified as Chichen II (Group A) and Chichen III (Group B, consisting of B′ and B″). Table 17 lists their distribution. The minor figures on columns, jambs, and pilasters are not included (see Table 11), and only structures carrying representations of Toltec or Maya are considered.

Chichen II (Group A). *Castillo.* All 30 main figures on the jambs, pilasters, and columns are Toltec.

Temple of the Jaguars, sculpture. There are 22 Toltec on the jambs and pilasters, 2 on each of the three sides of the wooden lintel and 2 on its top, and 15 as atlantean supports of the altar.

Temple of the Jaguars, fresco. Toltec and Maya appear in the paintings of the inner chamber, both in battle array and in conference between the victorious Toltec and subdued Maya. As has been suggested, human sacrifice may be taking place at several points.

Lower Temple of the Jaguars. The seven lines of figures depicted on the back wall, on the side walls, and on the vaults of the temple comprise, so far as we can determine, 128 persons: 89 Toltec and 39 Maya. Maya are in the lowest row; apparently three others are in the tiers above. In the top row (F) of the east vault, in the center, two Maya are flanked by three Toltec. Between the two Maya lie two intertwined serpents which come out in front of the two figures; the tail of one serpent is clearly shown. In the row below (G) there is a third Maya. These three, not so elaborately dressed as those in Rows A and B, are identified by their necklace and shell. The figure No. 5 in Row E may also be Maya.

The eight main figures on the two columns of this temple are Maya atlanteans: the four on the south column may represent bacabs; the four on the north column are skirted. Each has an undulating serpent in the background. The figure at the end of each side wall is also a Maya; the one on the north end wears gaiters.

Great Ball Court benches. On the face of the two benches are three panels, each bearing an essentially similar design of what appears to be seven Toltec and seven Maya. In two of the panels the Maya seem to have won the game; in four, the Toltec. This is deduced from the fact that the leader of the winning side is cutting off the head of the first man in line on the losing team.

North Temple of the Great Ball Court. A Maya is the main figure on each of two pilasters; two Toltec appear between two trees on each of the two round columns. At the base of each column are two recumbent skirted figures; another lies at the base of the north wall. These usually support a serpent and, like similar figures, are regarded as Maya. There are about 100 Toltec and 15 Maya on the back and side walls of this single-room temple. In general, the Maya appear as the vanquished.

South Temple of the Great Ball Court. A Toltec appears on each face of the six square columns (24 figures in all), and a single Maya on each jamb.

Gold disks from the Sacred Cenote. These plaques clearly belong in this period. Most of them show conflict between the Maya and their Toltec conquerors. Roughly 34 Toltec and 32 Maya can be counted.

Chichen III (Group B′). *Temple of the Chac Mool.* The main figures of the six extant faces of the pilasters are Toltec warriors. There may be some significance in the fact that on the pilasters and jambs of the Temple of the Warriors and its Northwest Colonnade the main figures are all Maya atlanteans. In the Chac Mool the Maya hold the prominent positions. The three remaining columns in the outer room carry Toltec figures; the three in the inner or shrine room, Maya. With one exception, all of them are priests. In the inner room there was at one time an atlantean altar. To the south is a bench on whose face, in fresco, are 14 seated Maya priests; on the north bench are nine seated Toltec warriors.

Northeast Colonnade. The four faces of each of the two columns enclosed by the dais and the two immediately in front are sculptured with Maya figures. On the front and two sides of the dais the personages are mainly Toltec.

Temple of the Xtoloc Cenote. The round columns of the entrance and the colonnade are unsculptured, but the two square pillars and the jambs of the inner temple bear Maya figures.

High Priest's Grave. The four square columns carry 15 Maya, the one Toltec being on the south face of the left back pillar.

Temple of the Little Tables. In fair state of preservation are two columns in the colonnade, and four in the outer room of the temple with the jamb, making 20 Toltec. Five intact faces of the four shrine columns carry Maya.

Other structures. In Str. 2B2 the figures on the two columns and the jambs seem to be Maya. On Str. 6E1 most of the small figures on the drums of the two round columns also seem to be Maya.

Chichen III (Group B″). Structures have been assigned to Groups A or B′ with some confidence. Group B″ also contains some structures which unquestionably belong there, notably the Temple of the Warriors and its Northwest Colonnade, obviously later than the Temple of the Chac Mool. These and most of the few others that can be placed here stem, in one way or another, from the Warriors galaxy, exclusive of the Chac Mool. In our archæological survey many buildings have been classified on the basis of plans in Ruppert (1952) and in other sources. Apart from the buildings clearly belonging to Groups A or B′, there are many others that cannot be definitely assigned. Our efforts, however, are greatly aided by the identification and location of Maya and Toltec personages. The figures enumerated below and thought to belong to Group B″ are taken either from the well-known and well-documented buildings such as the Temple of the Warriors and its Northwest Colonnade or from recent photographs made by D. L. DeHarport for Carnegie Institution of Washington.

Temple of the Warriors (fig. 49). This structure is well named, for in its two rooms are 64 Toltec, all warriors except those on Columns 8N,W; 16E; 17E,N. Toltec predominate here as in the lower colonnade. Nowhere is the Jaguar-Eagle cult seen to better advantage than in the frescoes on the interior and exterior walls of this temple, as well as in the bands of carved figures on the exterior.

The 19 atlanteans partially supporting the altar in the inner room were probably removed from the lower structure. Apart from the mosaic cap (a Toltec characteristic) worn by most of them, there is little to designate their ethnic position. This is in contrast to the usual altar support of this type, which, in most cases, is unmistakably Mexican.

In the murals on the interior walls of this temple, the Maya are represented as a defeated people. As in the Temple of the

Jaguars, combats are followed by the sacrifice of the vanquished Maya.

Northwest Colonnade. The largest number of human figures in bas-relief in any of the Chichen structures is to be found on the 61 columns of this peristyle. Of these, 55 are sufficiently well preserved to afford information and so show us 220 personages in all. The one jamb we can see has a Maya atlantean as its main figure.

Of the Toltec, there are about 160 personages, most of them warriors. There are some 60 Maya, including 30 prisoners, persons bearing offerings, sorcerers, and military priests. An altar panel in fresco (Morris, 1931, pl. 166) depicts all the figures as Toltec.

North Colonnade (fig. 45). Of the 40-odd columns in the front row, 13 square ones on the west end of the line are sculptured, all except the eighth column, with Toltec warriors. The four Maya figures on Column 8 are discussed on page 148.

On drums of some of the round columns on the terrace in the center and at the east end of the peristyle are remains of both Maya and Toltec, the latter predominating. Among the Maya are a number of the priestly class.

The remains of a painted capstone in the debris here show a typical Maya, but the style is that of Group A.

Temple of the Big Tables (fig. 25). The intact figures on the four columns in the inner room and the three figures on each jamb of the entrance are Toltec. The designs on various stones (probably from the façade of the building), roof ornaments, masks, a procession of jaguars, and other sculptured pieces bear similarities to the Temple of the Jaguars. Because of its proximity to the Temple of the Warriors and the slight evidence of Maya in its sculpture, this structure is placed in Group B″ rather than in Group A.

Thompson's Temple. This is another structure with a colonnade entrance. It certainly belongs with the Temple of the Warriors, as its fresco of Xiucoatl (Seler, 5:380) resembles that on the more elaborate temple.

Temple of the Jaguar Atlantean Columns (Str. 5B21). With its portico, this structure (fig. 43) is similar in plan to the Temple of the Warriors and its colonnade. The sculpture appears to depict only Toltec. There is a warrior on each face of the four columns in the lower structure and on two pilasters and two columns in the temple proper, each accompanied by a free-standing atlantean figure with his face in the open jaws of a jaguar. They all seem to be Toltec; some show the bird breast-ornament and the back-shield. No traces of the columns in the interior room remain.

Temple of the Interior Atlantean Columns (Str. 3C6) and the *Temple of the Atlantean Columns* (Str. 5C15) probably belong in Group B″. The former is similar in some respects to the main temple at Tula.

Monjas, Toltec Annex. This court consists of two porticoes and a small temple. The fourth side is part of the east wing of the main structure. From the southeast building came some unusually large square capitals belonging to the five round columns. On each side a Toltec lies at length; he does not seem to be atlantean in his pose. On the east jamb another Mexican is carrying darts and has an arm and a leg each ending in a serpent (fig. 138). On the west jamb is undoubtedly a Maya with leggings and other characteristic attributes. He carries what seems to be a banner. On the dais in the southeast corner of the south portico is a line of five pairs of individuals, each pair consisting of a Toltec holding by a rope a Maya who precedes him.

Caracol, West Annex. This Toltec façade has panels with figures in the round which suggest the front of the Northwest Colonnade (Ruppert, 1935, p. 256; Pollock, 1936a).

Ball Court (Str. 3D4). A room in the superstructure on the east wall contains a dais on whose face are about eight Toltec warriors, each grasping a Maya by the hair. They are arranged as four pairs on each side of a Mexican associated with a feathered serpent.

Temple of the Wall Panels. This much-altered building certainly belongs, in its later stages, in this group. The crudely carved panels are of considerable interest.

Mercado (fig. 54). This is the best known example of the gallery-patio construction, a type assignable to Group B″. The central figure on each face of the two pilasters is male and nude. The Maya appear to outnumber the Toltec. The dais resembles the altars of two other structures in this period. A central group of three is flanked on either side by eight or nine figures, each set being tied together with a rope.

Other structures. There are two temples with a columnar entrance and four columns in the inner room which seem to qualify for Group B″. Both have almost exclusively Toltec figures. The first (Str. 5B16) has one jamb and six columns on each face of which is a warrior (25 in all). The second, the Temple of the Sculptured Jambs (Str. 4B1), has two jambs and two entrance columns with similar figures. It is in this structure that we see, on the east and west faces of both jambs at the bottom, seated figures with one arm up and the other resting on the ground.

The presence of walls connecting various columns and of early and late benches places the Southeast Colonnade in this period. Likewise Str. 3D6, with bench and dais, as we note none of these features in Group A.

The court adjoining the House of the Phalli on the south shows an interesting arrangement of Maya and Toltec. The north line of four columns has a Maya at each end, two Toltec in the middle. The south row has the two Maya in the middle, the Toltec on the ends. A dais here places the structure in Group B″.

Sculpture on the face of columns and generally in very low relief may be a late feature. It is seen on Strs. 2C1, 2C4, and 2C10. Strs. 2C3 and 5C3, with completely rearranged pillars, would also seem to be late.

TULA. With a few exceptions, the main source of the comparative material for the ethnic study of the Toltec is Tula, the archæology of which has already been considered. At the conclusion of the description of the Toltec warrior at Chichen (Chapter IV-2) a section will be given to a discussion of the warrior as he appears in the archæology of Tula and other places, with comments on identities and similarities with the Chichen military (see Table 22).

Tula vase. A Fine Orange cylindrical jar from the Cerro del Tesoro, now in the Museum für Völkerkunde in Vienna, undoubtedly came from Tula. Of considerable historical and ethnological importance, it bears an essentially similar design of two Toltec in each of its two panels.[2]

Each panel (Panel A, taken from the Lehmann rubbing, is shown in fig. 505) has two Toltec figures, one of whom is evidently a successful leader or contestant. Each wears a mosaic headband, two feathers, a curious nose ornament, an ear decoration, and a back-shield. The main figure on both panels has a pointed beard; speech is indicated before the main figure in Panel B. In Panel A both figures wear the Toltec bird on the cap; one has an interesting breast ornament.

The right arm of both dominant personages ends in a birdlike claw stretched out to grasp the secondary figure, who seems to be making the gesture of surrender. The left hand of the leader in Panel A is vague; in B he carries the curved "weapon." All figures wear the heeled sandal with ankle decoration. The feet of the main personage in Panel A are crudely carved. The presence of what may be a yoke and the slipper-like footgear of the secondary figure in Panel A faintly suggests ball-players.

Other Mexican figures, such as those on the jambs of Str. 2C6 at Kabah, are described on page 165.

FEATURES COMMON TO MAYA AND TOLTEC

Most characteristics of each ethnic group will be considered separately as either Toltec or Maya, but there are some features that are not clearly demarcated and that may be found in both groups. Such common traits are names; speech-scrolls; body mutilation, ornament, and painting.

NAMES. *Classic stage.* In the Maya Great period the only example of any personal identification by sign or by glyph is on the limbs of some prisoners such as those on Lintels 8 and 12 (fig. 391) at Yaxchilan and on Lintel 12 at Piedras Negras. The designation probably refers to the name, the place of birth, the region from which the individual has come, or, possibly, the situation in which he is found.

It is to Mexico, beginning in Toltec times and the corresponding period at Chichen, that we must turn for the study of name signs.

Aztec. Name signs attain their highest development in the Valley of Mexico, where we find proper names of people and of places. Much description and long lists of picture-glyphs have been published on this subject (Tozzer, 1911, and bibliography to present work). The phonetics of some of these characters is of special interest.

Codices. In the long series of early manuscripts, especially from those from southern Mexico, there is a widespread custom of naming an individual from the name of the day of his birth together with its number. For example, 8 Deer is a very important individual in most of these manuscripts (fig. 607) and one can follow parallel passages which give dates and pictures of the main events in his life. It is becoming increasingly clear that many of the individuals are historical characters. Spinden (1940), Caso (1949a, 1950), Nowotny (1948) and others have worked out the dynasties of Mixtec rulers with special reference to the Vienna Codex.

The Maya codices contain nothing comparable on this matter, so far as we know, with the Mixtec manuscripts. The name sign or glyph is present for gods, for some animals, for types of sacrifices, and for a few other things.

Chichen. In the Mexican periods here name glyphs, both recognizable and unrecognizable, are often found. Their exact significance is obscure. They appear usually above an individual in a bas-relief on wall or on column, rarely in frescoes. They occur with both Toltec and Maya personages but seem clearly Mexican in origin. There are vagaries regarding their presence or absence.

Among Chichen II structures, Maudslay's plates of the bas-relief on the Lower Temple of the Jaguars show 26 persons who are probably Maya and of whom 20 have the name glyph. Of these, two (A11, A13) show a house on fire (fig. 506,*f*). Of the 45 Toltec figures, about 20 have the easily recognized realistic or conventionalized Toltec bird about their person. Most of those who lack the bird have a name sign.

A collection of the glyphs from the Temple of the Jaguars is given in figure 506. All the Toltec figures are *a,b,c,k,l;* all the others are associated with Maya. The sign in *d* is with a personage wearing crossed bones on his tunic, and also appears with a serpent showing its vertebrae; that in *i* is with a dead warrior. Both signs seem to indicate neither personal name nor place name, but a situation in which the person is shown.

Behind the standing Maya prisoner on Disk B from the Sacred Cenote there is possibly a name glyph with what looks like a jaguar's claw, so commonly seen as a name sign in Mixtec manuscripts.

In Chichen III structures the name signs, connected with both Toltec and Maya, appear much less clearly than in the Castillo-Jaguars group. Many are difficult to distinguish from the feather decorations on the head.

A very rough count shows 187 figures who, we believe, have the name feature. Of these, 118 (63 per cent) are recognized as Toltec, 69 (37 per cent) as Maya. These are listed, according to the building on which they occur, in Table 18. Table 21 enumerates figures which have the name sign, the bird sign, or both. The signs represent humans, birds, animals, and objects (Morris, 1931, figs. 231–36).

Practically all 30 Maya prisoners on the Northwest Colonnade show some sort of figure which seems to be a name.

The most interesting of the name glyphs here is that on Column 17 of the Temple of the Warriors (fig. 639) where the head of a rabbit rests on two bars which could conceivably represent the number 10. This glyph is not greatly unlike that in the Lower Temple of the Jaguars (fig. 506,*g*), which may show a bar and three dots, representing the number 8.

On the Mercado dais, above the line of bound prisoners, appear name glyphs which include trees, a house, a swastika-like figure, a bird, a long-tailed animal, and a shield (Ruppert, 1943, fig. 7).

Tula. On the square columns we find name glyphs above some of the Toltec warriors. A minute human being is on Pilaster 1 (fig. 507), a serpent-like figure on Pilaster 11 (fig. 508), and what looks like a jaguar on the restored column (fig. 561).[3]

SPEECH-SCROLLS. Flamelike curves issuing from the mouths of human figures and a few animals are usually interpreted as indicating speech or sound (fig. 509). With a few exceptions, they are found only in comparatively late times.

Classic stage. The exceptions occur at Teotihuacan in the Temple of Agriculture (fig. 509,*j*) and at the neighboring sites of Teopancalco, Tepantitla, and Atetelco, where figures on the frescoes show the curling element. At the last site, fantastic jaguars also have this feature.

Comparable speech-scrolls dating from about the same period are found on painted-stucco dishes from Kaminaljuju, Guatemala.

Certain Maya jades (fig. 695) in the Classic tradition show the scroll. At Acanceh, a comparatively early site in Yucatan, curious half-human, half-animal figures have this feature (fig. 510).

At practically all the sites which figure prominently throughout this study are personages with indication of speech. Its presence or absence is probably of considerable importance in interpretation of the scene, especially with regard to ethnic characteristics. Also interesting, but difficult, is the determination of the content of the speech by its form.

Chichen. Both the type of person who makes the speech and the nature of the speech are brought out in the scrolls here. As with the name glyph, the speech design is far more evident and seems far more significant in Group A buildings.

It was suggested in 1930 that the famous bas-relief in the Lower Temple of the Jaguars might show a sort of ritual or conference in connection with peace or possibly in behalf of Quetzalcoatl. The center of the whole design may be a ball-player in the guise of Tlaloc. The altar and the serpent with a nearby figure holding a stone knife (fig. 542) may even indicate a sacrifice of the main personage.

Practically all those figures on this bas-relief regarded as Maya, as well as most of the Toltec, show speech-scrolls. From the study of the place names associated with most of the figures, there is some reason to assume that the personages came from various localities and that most of them had a speaking part in whatever ritual was taking place.

There is wide variety in the actual character of the scroll itself. The most elaborate forms are found among the Maya. In the Lower Temple of the Jaguars the two leading figures in the second row from the bottom (B) are of interest. They are to the right of the central Tlaloc, and both present offerings. The first (fig. 626) has a speech design showing a vine with buds, blossoms, and leaves, probably of the lotus. The one behind (fig. 627) has a less complicated element of the same type.

The leading Toltec's speech (fig. 539) is indicated by the usual conventionalization of the jaw of a serpent with its noseplug.

On the three carved faces on the wooden lintel in the Upper Temple of the Jaguars the Toltec seated inside the sun disk shows the speech design (fig. 270). In a fresco in this structure (fig. 396), at the bottom of the wall, are groups of seated figures, usually consisting of a Toltec haranguing a submissive Maya. In one case three of the four prisoners appear to be expressing vigorous protests (Seler, vol. 5, fig. 205). In the scenes above, battle cries seem to be uttered by fighters on both sides.

In the center panel on the west side of the bench of the Great Ball Court, the sacrificer and two of the six figures behind him have speech-scrolls (fig. 474). From the neck of the victim there issues, in addition to the six serpents, a vine with buds, blossoms, and leaves very similar to the element representing speech in the Temple of the Jaguars bas-relief. All the six figures behind the victim have elaborate speech-forms.

In the North Temple of the Great Ball Court speech is indicated on the lower zone of the north wall between the two leaders on either side of the jaguar altar (fig. 141) and on the west side by a figure on top of a house (fig. 685). Speech is by no means as common here as in the Lower Temple of the Jaguars.

On the gold disks from the Sacred Cenote speech is shown coming from the executioner on Disk H (fig. 393), from a sky figure on Disk B (Lothrop, 1952, fig. 30), and from a Toltec on Disks E and I (fig. 681). The Maya being attacked by an eagle on Disk L (fig. 437) and on Disk M (Lothrop, 1952, fig. 42) seems to be making a protest. In the water scene on Disk G (fig. 681) the Toltec conqueror is talking while three of the four oarsmen are exchanging words with a man on a raft.

In Group B buildings, specifically in the Temple of Warriors galaxy, the scrolls are often difficult to recognize in the narrow space on the columns. According to a rough count, only 68 of the 340 figures show this characteristic. Of these, 55 (80 per cent) appear with Toltec figures, 13 (20 per cent) with Maya. The distribution of this feature is shown in Table 19.

The significance of speech among the Toltec and Maya is emphasized by the frequent appearance of these scrolls.

Mayapan and East Coast. The speech-scroll seems to be rare in both these areas. It is found on the Santa Rita frescoes.

Guatemala. Speech is noted on a stone from the Toltec site of Tajumulco (Dutton and Hobbs, 1943, fig. 20,*a*). On several stelae in the Cotzumalhuapa region the priest making the sacrifice addresses the figure emerging from the sky (fig. 509,*e*). On Monument 1 (fig. 487) it is the stone knife that seems to be speaking.

Tula. In general, speech in Mexican archæology is represented much more simply than at Chichen. Scrolls come from the mouth of some of the figures on the square pillars (fig. 561) in the inner room of the main temple. Among other figures in bas-relief with the same feature is the ball-player (figs. 490, 551).

Xochicalco. Before some of the figures seated on the foundation mound, speech is indicated with very simple curves (fig. 509,*c*,*d*).

Central Mexico. Speech is often indicated on monuments from Tenochtitlan, and on the *quauhxicalli*. On the sides of the Teocalli de la Guerra Sagrada are four figures of gods before whose mouths is a complicated design of water and flames, called by Seler (3:221), *atl-tlachinolli*, "water and something burned." It is supposed to represent a war song in connection with the Jaguar-Eagle cult (Caso, 1927, p. 30).

The famous drum from Malinalco (fig. 450) shows the same sign in front of the mouth of each dancing animal in the procession below.

Veracruz. At Tajin the Ball Court panel depicting human sacrifice shows the priest performing the ritual while speaking, similar to Disk H from the Sacred Cenote (fig. 393). In the northwest panel two ball-players seem to be conversing (fig. 492).

On the Tamuin fresco under a Mitla-like frieze several figures show speech curves.

Stela 6 at Cerro de las Mesas shows a simple rosette-like speech design.

Oaxaca. On the fresco of Tomb 105 at Monte Alban several of the figures in procession show scrolls not unlike those on Teotihuacan wall paintings (Marquina, 1951, pl. 28).

Before the personages on Stelae 3, 4, 6, 8, 9, 10 speech is noted. In one case a glyph shows a human head from whose mouth issues the sign for speech (Caso, 1928; 1938). A stone from Oaxaca (fig. 511) has a seated figure with speech. Above, a jaguar may indicate a name sign; at his feet is another beast.

Both human and animal figures on the frescoes at Mitla show scrolls.

Codices. Speech does not appear to be represented in any of the Maya manuscripts. In one instance, Dresden 34a (fig. 509,*g*), sound comes from the end of a wind instrument blown by a personage painted black and from a drum beaten by another individual.

A comma-like design (fig. 509,*a*) is a frequent feature expressing speech in the Mexican manuscripts and place names.

BODY MUTILATION. The Maya custom of artificial flattening of the frontal bone in childhood, and mutilations such as the offering of blood to the gods by cutting various parts of the body are treated in Chapter VI-3. Here we are concerned with the secular type of mutilation, performed essentially for personal adornment and expressed by the wearing of ornaments in the nose, the ear, and the cheek, evidenced mainly in bas-relief and fresco.

Early references. Among the many references we note that in Cogolludo's account (2, VI) of the first large battle in Yucatan between natives and Spaniards, at Ake, in the province of Chauaca, he speaks of the enemy "as most ferocious with holes in the noses and ears and ear pieces of *cuzcas* ('emeralds'?) and other stones of varied colors." Cardenas, in his *relación* of 1639, adds that of the nose and ear ornaments, "each represented an infernal and frightful figure which our conquistadores did not admire."

Landa (1941, p. 126) writes, "They pierced their noses through the cartilage, which divides the nostrils in the middle, in order to put in the hole a stone of amber," [4] and (p. 113), "They offered sacrifices of their own blood, sometimes cutting (the ear) all around in pieces. . . . Other times they pierced their cheeks, at others their lower lips."

In the *relación* of Merida (RY, 1:41), we read of "their ears being pierced and pieces of cane from which hung pieces of metal like tin-plate of a golden color placed in them."

Archæological examples of ornaments. Specimens of jade and other stone, obsidian, shell, and mosaic are found in archæological investigations and in many collections. The typical Maya tubular jade bead, many examples of which were recovered from the Sacred Cenote, is constantly seen on figures in the stone carvings as a necklace, a breast ornament, or a nose or ear decoration. Jade nose ornaments from the Late Classic are reported from Nebaj, Guatemala (Smith and Kidder, 1951, fig. 58,*b*), and from many other places. Jade rings and beads of jade and obsidian, often in pairs to be worn in the ears, were also found. Lip pieces of obsidian are common in Mexican collections. Ornaments painted green in fresco and bas-relief, presumably show that the originals were of jade.

Tribute rolls. Ear and nose pieces of jade, amber, and gold are pictured in Aztec lists of tribute.

1. EAR DECORATION. *Classic stage.*[5] The circle and the square ornament are the most common forms. Sometimes from the circle and usually from the square protrudes a tubular bead, often with a round bead or bone at the end. This is the type most commonly found on "Chichen Maya" figures. When seen in profile, especially on Lintels 2 and 41 at Yaxchilan, it seems to be cuplike, inserted into the ear with a projecting element (Proskouriakoff, 1950, fig. 20).

Chichen. There is a great variety of spools, "flares," disks, beads, and various combinations worn in the ear by the figures here. Toltec and Maya show less similarity in these than in the nose ornaments. The disk, with or without an inscribed circle, face, or sun in the center (fig. 526), is commonly Toltec. In Group B structures and on the gold disks from the Sacred Cenote 140 Toltec as against 12 Maya wear the simple circular plate.

The disk from which protrudes a long tubular bead with a round bead at the end is more often noted on Maya figures. We see it (fig. 512) on an "anomalous" Toltec (discussed later). In Group B structures 72 Maya and 27 Toltec wear this type of decoration; on the gold disks, eight Toltec and four Maya show it. The three Toltec in the sun disks on the lintels of the Temple of the Jaguars, and the three figures associated with the feathered serpent, have the same ear decoration (see Smith and Kidder, 1951, fig. 60).

Most of the Mexicans on the bench of the Great Ball Court appear with it. A few show two flat circular beads hanging from the lobe of the ear.

There is a type of ornament that must have caused a badly lacerated ear for the insertion of what appears to be a wooden piece. More often seen on Toltec, it is evident in Group B structures on 17 Toltec and 12 Maya. Among the latter are mostly priests, sorcerers, and prisoners. Examples from the Temple of the Warriors are shown in figure 513, from the Lower Temple of the Jaguars in figure 537. Jamb K9 in the Upper Temple of the Jaguars shows a modification of this type.

The uncommon square bead ornament is about evenly divided between Maya and Toltec.

Kabah. On the Codz Poop jambs, two figures have the square earplug and two the circular type (fig. 603).

Uxmal. Stela 14 shows the round earplug with tubular bead.

Tula. The round ornament, with or without the incised inner circle, is most common here. The type with projecting tubular bead is noted on Pilaster 1 (fig. 507) and on the Tula vase (fig. 505). The decorated square tablet is used as an ear ornament on a warrior figure (fig. 555). Finally, the crescent is noted on the square columns (fig. 561).

Ceramics. Interesting examples of ear and nose decoration appear on anthropomorphic effigies of Plumbate pottery (Shepard, 1948, fig. 26).

Codices. The round earplug with protruding tubular bead and the usual additional element at the end is very common in the Maya manuscripts: Dresden 11a,b, Madrid 30, Paris 4, for example.

2. NOSE ORNAMENT. This is the second type of decoration requiring mutilation. The nose may be cut in two places: through the septum, into which a bead is pressed or from which a pendant is suspended; or at the alae, into which disks or buttons are inserted. A combination of button and pendant is also found.[6]

Classic stage. The tubular bead, the most common nose ornament among the Chichen Maya, is practically unknown in Classic times. Proskouriakoff (1950, p. 59) cites one example: that on Stela 10 at Seibal, "a very late monument." It is also worn by a seated figure on a Chama vase.

The nose ornament consisting of tubular bead into which a feather is inserted is common at Yaxchilan: Lintels 5, 6, 39, for example.

The bar bead with a round bead at each end occurs frequently on the masks shown on the loincloth apron (Proskouriakoff, 1950, figs. 24, 25).

The usual nose ornament in Classic times is the pendant or tassel, usually a pear-shaped bead, hanging from the septum.

The figures on Altar Q at Copan (fig. 515) afford examples (see also Lintels 9 and 33 at Yaxchilan).

Chichen. The round thin stone disk is common here. Sometimes two of these, threaded together, are tied to each side of the nose. This combination with a pendant is shown on two Toltec in figures 516 and 526.

In the gold disks from the Sacred Cenote the nose button or buttons, inserted in the alae, are also worn by Toltec. One of the Mexicans on Disk F shows three buttons on one side of his nose. Two of the figures on gold bells from the Cenote seem to wear the button.

On figures in Group B structures the nose button is rare (six instances), but the nasal tassel is common. Of occurrences of the latter, 110 appear on Toltec (fig. 517), 10 on Maya (all the latter are prisoners). The tassel is noted only once on a Maya in the Lower Temple of the Jaguars (fig. 637).

The combination of button and drop is worn by 41 Toltec and also by Mexicans on the Temple of the Jaguars jambs and in the lower bas-relief.

The tubular bead through the septum of the nose is most often found among the "Chichen Maya." It is noted far more commonly, however, on Mexicans (fig. 512) than are the button and pendant on the Maya. In Group B structures, 47 Maya and 19 Toltec wear the horizontal bead; on the other hand, it is worn by most of the Mexicans in the panels of the Ball Court bench. On the gold disks from the Sacred Cenote, seven Maya and three Toltec have it. A common form, seen on Disk A, has a round bead at either end of the bar. On this plaque both Maya and Mexicans wear the same nasal decoration. The three Toltec on the sun disk on the Temple of the Jaguars lintel wear it, as do five Maya and only two of the far greater number of Mexicans in the Lower Temple. Many of the typically Toltec atlantean altar supports, together with the large caryatids of the Temple of the Initial Series, have it.

The combination of bar bead and tassel is fairly rare. It is recognized in Group B structures, worn by three Toltec and eight Maya. An "anomalous" Toltec wears the combined decoration (fig. 518).

Another form of the nose ornament is called the terrace type (fig. 519). An excellent example is on the face in the mouth of the Jaguar-Serpent-Bird on Mausoleum III (fig. 315). It appears on the secondary Mexican figure on Disk C and on one of the Toltec (no. 11) in the central west panel of the Ball Court bench.[7]

A more frequent and widely distributed example of nose decoration is the cuplike crescent.[8] This and the drop are the most common nose ornaments in the Mercado dais. Worn by both Maya and Toltec, it is seen customarily on the "anomalous" Toltec. On the Ball Court bench, individual No. 10 has it. Figure 520 shows it in its simplest form; figure 521 shows a double nose button and the U-shaped ornament.

The double noseplug (fig. 315), a very common feature seen rising on the nose of the Jaguar-Serpent-Bird and on several masks, has already been described.

An elaborate nose ornament (fig. 618) emerging from the top of the nose is seen on a Temple of the Warriors fresco.

Other Yucatan sites. The bar bead is worn by the major figure on both jambs of Str. 2A3 at Kabah (fig. 687), and on some of the personages on the jambs of the Codz Poop (fig. 603). The same type is seen on Stela 15 at Uxmal. It is also noted on Stela 9 at Oxkintok, and on the Halakal lintel, both Proskouriakoff's "Late Yucatan, variant."

Tula. The double disk, the nose bead, and the pendant are all found here and, obviously, all on Toltec personages. In figure 561, showing the four sides of one of the columns, the two upper figures wear the tassel; the two lower, the tubular bead with a round one at either end.

The Tula vase has figures with undefinable nose decorations.

Codices. Vaticanus B 30 and Bologna 1–8 are only two of many which show the bar bead. Nuttall 7 shows the U-type. In Nuttall, 8 Deer is having his nose cut in order to receive this ornament (fig. 522) and he wears it (fig. 523), along with a nose bar from which hangs a pendant, while he is busy making fire. He is shown here with his back-shield, his name, and (in fig. 522) his sign, a claw (see Cooper-Clark, 1912).

An interesting nose ornament is shown on various personages in the Mixtec codices. It is also seen as a glyph for the dead warrior (*yacaxiuitl*), who figures in the Jaguar-Eagle cult, and concerns us here primarily in connection with this ritual.

The sign of the dead warrior with headdress (showing death and a flint), the nose ornament, and breastplate is seen in figure 524. It is barely possible that the breastplate can be regarded as a late form of the conventionalized bird of the Toltec warrior.

3. Cheek button. *Chichen.* A third type of mutilation noted by the early authorities is "the piercing of the cheeks" in order to insert an ornament. The cheek button is relatively uncommon and seems to be confined to the Toltec. It appears on Column 14S (fig. 525) and on Column 61S in the Temple of the Warriors. Four Toltec figures in the Temple of the Little Tables wear the cheek button.

Tula. The cheek button appears on a personage on at least one of the pillars (fig. 551) and on another personage in the procession of the caciques (fig. 543).

4. Lip ornament. This decoration is not in evidence on the reliefs at Chichen. An obsidian type is found in the Valley of Mexico.

Body painting. *Early references.* It should be kept in mind that the Spanish accounts generally refer to the situation as it was in post-conquest times. It is by comparing them, however, with the frescoes and bas-reliefs that the usefulness of the written records is demonstrated (Tozzer, 1941, p. 293).

We learn from a *relación* (RY, 1:41): "In order to show ferocity and to appear more fierce and valiant (the) Warriors painted their eyes and noses and the whole face, body, and arms with black and red." Avendaño (1696, p. 264) speaks of the "striped and painted faces" he saw near Peten Itza.

Other sources. Fortunately, at Chichen and a few other sites, especially Bonampak, there are frescoes of the greatest value in our study of body painting. Also most useful are polychrome ceramics, many of which, notably those of the Chama type, depict scenes that give us much additional data.

Chichen. It is difficult to give statistics or even general statements concerning body painting as evidenced on Group B structures for two reasons: only a comparatively small number of the numerous columnar figures have been published in color, and some of the fresco design is in black and white. For example, only five typical Toltec warriors appear in the frescoes that are available. Two show color, one with red, the other with a yellow body.

A rough count of the figures on the columns of the Temple of the Warriors galaxy is tabulated in Table 20. The horizontal red-striped body seems to be a consistently Maya characteristic as it is found also on the frescoes, on the defenders of the village and on the prisoners below (fig. 60). Other bodies painted with horizontal stripes have been identified as: a figure evidently climbing the steps to a temple (Morris, 1931, pl. 168,*d*), a victim of human sacrifice (*ibid.*, pl. 144,*b*), a sorcerer (Northwest Colonnade, Column 52E [*ibid.*, pl. 155,*b*]), two warrior-priests (Temple of the Warriors, Column 10W; Northwest Colonnade, Column 52W), and two priests (Temple of the Chac Mool, Column 5N,S), all of whom appear to be Maya.

The Toltec in the battle scenes usually have a black body and a red face. In the village scene (fig. 60) all six Mexicans have dark brown bodies. Three Mexican warriors have black-painted bodies (Morris, 1931, pls. 156,*a;* 148,*c;* 160,*c*).

In the Temple of the Chac Mool the south bench, devoted to the Maya, shows seated priests whose bodies were red, their faces and arms yellow. On the north bench, the Toltec warriors have yellow bodies (Morris, 1931, pl. 135), illustrating the formal separation of Maya and Mexican.

In scenes of human sacrifice the victim is usually nude and yellow, whereas the priest and those who hold him are very dark blue-black. In two instances the victims (Morris, 1931, pl. 144,*a*), a man and a woman, have yellow bodies bearing some blue. In a water scene (*ibid.*, pls. 146–47) figures with reddish yellow bodies are obviously Maya captives. They and the person being sacrificed have yellow hair, into which is woven what looks like jade beads.[9]

In addition to warriors, priests, and prisoners, generally regarded as belonging to the same social class, the mural paintings also depict laborers, noted especially in the peaceful village scene (fig. 62). Their bodies are usually yellow, and their clothing consists of a simple breechcloth (Morris, 1931, pls. 157,*c,d;* 159; 160,*d*). Some are darker (pl. 167,*b*); one head (*c*) is black and shows "negroid characteristics."

2. TOLTEC

The preceding characteristics have been considered without special demarcation between Toltec and Maya. In this section we are concerned only with the Toltec, primarily at Chichen and comparatively at Tula.

"The Typical Toltec Warrior"

A quotation from an article (Tozzer, 1930), written before Morris's study of the Temple of the Warriors appeared, gives a picture of the Toltec military figure:

> The typical Mexican appears again and again on the pilasters of the Jaguar Temple [fig. 526]. He wears a mosaic crown-like headdress [fig. 529] often with a point in front; he has a breast ornament, probably also of mosaic. He carries a bundle of spears [darts][10] together with a bag [*matlauacalli*] in his left hand and in his right an *atlatl* or spear-thrower. His left arm is protected by padding or a kind of shield; he wears a "back shield" or "dorsal mirror" fastened around his waist. . . . There are a few very distinguishing features. He usually wears either on his headdress or as part of his breast ornament a realistic or a highly conventionalized bird design. . . . Above the head of each Toltec is a sign showing by means of a picture in the Mexican style his tribe, his town or his name.
>
> Finally, to designate the Mexican warrior, there is [usually] a button on each side of the nose in contrast with the long bead worn by the Maya through the septum of the nose.

Let us consider the features noted in this paper, together with other characteristics not then recognized.

Dress. The data on the subject of dress are voluminous. Our information for the Classic period is derived mainly from the Maya stelae, lintels, and altars. In the Mexican periods, first place is given to the Chichen bas-reliefs, frescoes, Cenote disks, and the codices.

Landa (1941, p. 122) writes, "Some of them, such as the lords and captains, had helmets of wood, but these were few in number, and with these arms they went to war, clothed with feathers and skins of tigers and lions. . . ." For Aztec Mexico, Sahagun, our principal source, gives long descriptions and drawings of headdresses, body coverings, and weapons of offense and of defense. The Mexican manuscripts also offer much information.

Here we are concerned, for the present, with the appearance of the Mexican warrior as seen, principally, at Chichen.

1. Body covering. This varies greatly. A short skirt, an apron pointed in front (fig. 527) or longer in back than in front, and a tunic ending above the knees are some of the forms. In the Lower Temple of the Jaguars the skirt is often embroidered and fringed (fig. 528). In the Temple of the Jaguars the body is nude except for the covering of the private parts and a wide belt by which the back-shield is tied (fig. 526).

2. Hairdress. The hair on the head is most often concealed by the headdress and the ear decoration, but when visible it is seen on many more Toltec than Maya figures. The arrangement shows great uniformity. The hair falls in two strands, one on each side of the usually circular ear spool; the ends of the locks are often seemingly cut into points. This type of hairdress is noted on the Lower Temple of the Jaguars (fig. 527) as well as on 30-odd figures in Group B.

A few Toltec wear the hair in the Maya manner (see Chapter IV-3).

On Disk C from the Sacred Cenote the main Mexican (unless poorly executed) seems to have a decorated element attached to his hair at the back. On Disk I the hair on two of the Toltec falls on each side of the ear spool but the strands appear to have a bead decoration. The middle figure, also a Mexican, wears no hat; his hair is long, and three feathers are attached at the back of the head.

3. Beard. This is far more in evidence among the Toltec than among the Maya.

Chichen. The bearded Mexican at this site is rare. There are no examples in either the Upper or Lower Temple of the Jaguars. A famous bearded Toltec is seated near the center of the bas-relief on the north wall of the North Temple. There is one on the north and another on the east side of the west pilaster in the main entrance to the Castillo; a lintel in this building also shows bearded figures.

On most of the gold disks from the Sacred Cenote, however, the main Toltec figure wears a longish beard, usually pointed (fig. 529). One (*f*) has a moustache; others (*a-e,g*) wear a beard. The Tlaloc figure in the Lower Temple of the Jaguars has one.

A bearded Toltec with his bird headdress emerges from the jaws of one of the undulating serpents on the frieze on the north side of the dais of the Northwest Colonnade. This suggests the bearded figure coming from a reptile's mouth on one of the jade beads from the Sacred Cenote (fig. 124).

Guatemala. Vaillant (1931) shows a type of bearded figure

from Quen Santo, Guatemala, which is probably Mexican. He pictures a small jade head in Paris that is difficult to place, as is the strange Guerrero figure.

Oaxaca. Caso and Bernal (1952) show a few figure urns with beards. Among them are a Cocijo of Epoca II from Cuilapan (32), several of the "Old 2 Jaguar" (225, 7, 8), and a single head (318, fig. 467,*b*). One of the two lower figures on Zapotec Lapida 1 wears a beard, as does one on Lapida 14 (Caso, 1928, figs. 81, 94). Another is shown in figure 530.

The most common bearded personage, generally regarded as Mexican although not noted at Chichen, has a Roman nose, pointed beard, and often no hair immediately around the mouth.

Campeche. Shepard (1948) shows Plumbate vases from Campeche and other places with such a face.

Guatemala, etc. This type occurs on Monument 3 at El Baul (Lothrop, 1936, fig. 35; Villacorta, 1938, pp. 101, 198). It is also seen in Nicaragua, in Salvador, and in many other places on Plumbate effigies (Shepard, 1948, fig. 16).

Tula. The figure on the bas-relief of Pilaster 11 (fig. 531) wears the same type of beard. The dominant figure on both panels of the Tula vase has the large nose and the beard with accompanying hair around the mouth. A photograph from Caso (courtesy of John Glass) shows a Plumbate vase with a bearded face in the open jaws of an animal. An unusual stone panel from Tula, one of a pair in the Arensberg Collection in the Philadelphia Museum of Art, shows a Toltec with the nose bead and long ear bead. He seems to be wearing a beard.

Teotihuacan. Among several Plumbate vessels, Vaillant (1927) shows three bearded individuals: one said to have come from Teotihuacan, another from Hidalgo, and a third from the Mixtec. There is an old bearded fire god (not, however, of Plumbate ware) shown from Teotihuacan by Seler (5: 455, 559).

Veracruz. The famous stone disk in the American Museum (fig. 533) and the Tepatlaxco ball-player (fig. 494) are in this group. Some "Olmec types" show it. At Cerro de las Mesas (Drucker, 1943) there is a pottery head, larger than life-size, which has the aquiline nose. Another type of beard is found on Stela D at Tres Zapotes (Stirling, 1943).

A seated stone figure in the Basel Museum has the hairless rim around the mouth (Dietschy, 1941, fig. 3).

Codices. The Nuttall and Vienna codices show several warriors, including 8 Deer (fig. 523), with this type of beard.

4. Headdress. *Chichen.* (1) Mosaic "hat." The most typical Toltec head covering in Group A structures, particularly on the Castillo and the Temple of the Jaguars pilasters, jambs, and columns, is the cap or band presumably decorated with mosaic. It appears also on the Sacred Cenote disks (fig. 529,*a-h,j-l*). This head ornament is often tied in two places at the back (Lower Temple of the Jaguars, Pilasters D10, D11; Disk A). It is sometimes seen with the pointed front not unlike the Mexican *xiuhuitzolli* or crown worn by Aztec rulers: Temple of the Jaguars, Pilasters H2, K3 (Seler, 5: 279, 282); Lower Temple of the Jaguars (fig. 534); Northwest Colonnade (fig. 535); and Temple of the Warriors, Columns 3N, 13N.

In Group B structures this type of decoration is uncommon.[11] It is probably shown in the Northwest Colonnade (fig. 536).

A frequent addition to the headband is two or three feathers rising from the top of the hat at the back. This is common in the Temple of the Jaguars (fig. 526). The feature also appears at Tula.

(2) Bird form. Perhaps the most diagnostic piece of headgear is the realistic or the conventionalized bird; the first is usually in front of the mosaic band, the second above it. Above all this are the few feathers just noted or a fanlike arrangement of them, as they appear at the top of the headdress on many of the Mexicans in the Lower Temple of the Jaguars.

The Cenote disks (fig. 529) show seven of the realistic type; a pilaster in the Temple of the Jaguars (fig. 526) shows the stylized form.[12] Excellent examples of the latter are worn by the skeletonized warriors on Mausoleum II (fig. 460) and in the Lower Temple of the Jaguars.

On the gold disks only the realistic form appears as a head ornament on figures in the center scene. The type is excellently shown in the Lower Temple of the Jaguars (figs. 537, 538). The conventionalized type with the mosaic headband is seen in figure 539 on a person wearing the same stylized bird as a breast ornament. His speech-scroll and his serpent garters have already been commented upon.

As part of the center design of the frieze on both sides of the dais of the Northwest Colonnade (fig. 114), the head of a Toltec with a bird on his hat emerges from the mouth of each of the two serpents. The same design without the bird is on the front of the frieze. It has been suggested that these figures are being swallowed by the serpent who represents the god Tlauizcalpantecutli.

On the painted capstone from the tomb at Halakal a dancing figure wears the realistic bird on his headdress and three distinct ornaments in his nose (fig. 540).

This bird appears on the head covering of two atlantean altar figures: No. 3 at the Temple of the Jaguars and No. 2 at the Temple of the Big Tables (Seler, vol. 5, pls. 18, 21).

(3) Turban. A headdress of a wrapped woven textile, surmounted by the usual feathers, appears on several Toltec. It seems to be associated with persons of importance. On the Great Ball Court bench three of the six Toltec figures are wearing it. In the Lower Temple of the Jaguars the turban with serpent and beads is worn by one of the leaders of the Toltec group (fig. 541). In the North Temple of the Great Ball Court, on the north wall, the turban is worn by seven seated Toltec figures,[13] who are offset by six seated Toltec in the more usual garb. The evidently prominent actors in the scene on the vault above also wear the turban, often with the intertwined serpent. On the east side wall of the chamber a figure, seemingly Toltec and wearing the turban, is lying dead. This is difficult to explain, especially as the two individuals standing over him may be Maya, one wearing a long necklace.

Finally, the turban and serpent occur in the Temple of the Chac Mool on Column 2E and Pilaster D; Temple of the Warriors on Columns 1E, 12W; Northwest Colonnade on Columns 38S, 41E, 61W (fig. 512); and on the dais (Morris, 1931, pl. 128). Only on Column 12W of the Temple of the Warriors does it seem to be worn by a Maya and he is a donor.[14]

(4) "Box" and bead ornament. A curious headdress, difficult to describe, is made up of a narrow boxlike design, usually divided into compartments, with a semicircular figure at the front from which three tubular beads ordinarily project. Above the box the usual feathers stand erect. This is worn by both Maya and Toltec. In the Lower Temple of the Jaguars it appears on at least two figures who, from their surroundings, look like Toltec but show Maya features. One, wearing beads in his hair and carrying a knife, follows a Toltec (fig. 542). One of the Mexican gods, Tlauizcalpantecutli, is represented this way. It is he who may be an executioner for the ball-playing Tlaloc in the center of the design.

A figure within a sun disk (fig. 271) has the same boxlike head covering. Certain elements of his decoration seem more Maya than Toltec.

This headgear appears again on the bench of the Great Ball Court, where it is worn by most of those on the side of the executioner, who, in this panel, seems to be a Maya.

Tula. The mosaic headband is found on the tall atlantean figures (fig. 562; note manner in which the ornament was tied at the back), on a figure from the cacique procession (fig. 543), on the Tula vase (fig. 505), and on another atlantean (fig. 544). In some cases two or more feathers come from the top of the hat, and the realistic bird appears at the front (figs. 505, 507, 508). Both the conventionalized and the realistic types are noted on the caciques (fig. 543) and a warrior figure (fig. 545); the conventionalized form appears on the two upper figures on a restored column (fig. 561).

Other varieties of headdress are rare at Tula.

5. Breast and neck ornament. *Chichen.* (1) Bird form. The bird, almost always the conventionalized type just noted as part of the headdress, is the most consistent form of breast ornament worn by the Toltec (fig. 546). Rarely does it occur on both head and breast of the same figure, but the Lower Temple of the Jaguars has three instances (C12 [fig. 539], C13, E7) where the conventionalized bird appears in both places, one instance (D13) where the realistic bird is above and the stylized below.

The conventionalized bird occurs as a breast ornament on the LePlongeon chac mool,[15] on numerous atlantean altar supports, on the Temple of the Jaguars fresco (Seler, 5:327, 351), and on two Toltec on a jade circlet (fig. 547) from the Sacred Cenote. The two Toltec on this piece look as if they were guarding a prisoner. The same design occurs numerous times on the columns of the Temple of the Warriors and its colonnade.

The conventionalized bird occurs only three times as a breast ornament: on two figures coming from the sky on Cenote Disks B and H (fig. 254) and on another Toltec on Disk I (fig. 529,*e*), who also wears the realistic bird on his hat. The figure is in profile while the "bird" is in full face.

There sometimes seems to be a correlation between the presence or absence of the breast or head bird and the glyph, probably representing a name or a region. In the Lower Temple of the Jaguars the name alone occurs four times, the bird alone 19 times. Both are present three times and both are absent twice (B11 and B12). It is worth noting that on this bas-relief, of the 23 figures definitely Maya, 20 have a name, three are indistinct. It might be assumed that all the Maya were strangers and so needed a name above their pictures, whereas the Toltec were known and simply carried their ethnic designation.

The instances in Group B structures where the bird form appears with or without the name sign and where the name alone occurs are enumerated in Table 21.

(2) Mosaic ornament. A common decoration, hanging from the neck and worn with or without the conventionalized bird just described, seems to be made of mosaic pieces evidently sewn in parallel lines on a background with a curve at the bottom.[16] Many of the pilasters in the Temple of the Jaguars show this. A Toltec in the Lower Temple of the Jaguars (fig. 537) has the bird, the mosaic headband, the mosaic design on his breast and on at least one cuff. A similar breast ornament is noted on the individual D11.

A second common type (fig. 548) is more in the nature of beads sewn on a foundation, with others hanging freely along the edge. Of more than 60 examples of the mosaic neck ornament in the Northwest Colonnade, about half appear with the bird in front of the decoration. In the North Colonnade, Columns 4S,E and 5S,E show two excellent specimens (see also fig. 538).[17]

On at least two of the Toltec on the faces of the interior columns of the Castillo two lines of points which look like feathers hang below the beaded decoration.

(3) Pectoral and beads. This type of decoration is more common on Maya figures than on Toltec. A human face surrounded by beads with or without pendants, probably all of jade, is noted as a breast ornament in the Temple of the Warriors on Columns 4N, 10W, 9N, and 18N, the last two in profile. It may appear as a face (fig. 512) or with the center adorned with tubular beads, each ending in a round one (fig. 549). The decoration is seen full face on the ball-player on the bench of the Great Ball Court, in profile on the beheaded victim of sacrifice who is a Maya (fig. 474).

An atlantean altar figure (no. 6) from the Temple of the Big Tables wears suspended from a necklace a head with tubular bead pendants (Seler, vol. 5, pl. 22). The Toltec in the sky on Cenote Disk C wears a similar neck ornament (fig. 255). The executioner on Disk H has arranged his necklace to hang down on his back (fig. 529,*n*).

In the Lower Temple of the Jaguars the only definite necklace consisting of a round pectoral and beads, worn by a Mexican, appears on the rear wall, C15.

A string of medallions is seen on a column in the Temple of the Warriors (fig. 581).

(4) Animals. The serpent serves as a breast ornament on two personages on columns of the Northwest Colonnade (15W, 55S) and a jaguar-like figure on three others in the same structure (2W, 6S, 21N). One prisoner, a Maya, has the same jaguar-like design (fig. 689) as does one of the atlantean supports (no. 2) of the Jaguar altar (Seler, vol. 5, pl. 18).

(5) Shell ornament. This type, worn by both Toltec and Maya, has been considered in Chapter III-7c7, where the Eecatl or Quetzalcoatl emblem is also considered.

(6) Flat disk. An excellent example of a circular plaque worn both as a head ornament and as a breast ornament appears on the Tlaloc figure in the Lower Temple of the Jaguars (fig. 484), who resembles the large-scale person on the east wall of the Jaguars. Here the yellow color of the disk on the head of the figure clearly indicates that it was of gold and probably similar to the many plain gold plaques recovered from the Sacred Cenote.

There is a common breast ornament worn by both groups. It was at first identified as being made of shell with one or two perforations; later a photograph showed that what had been thought to be circles were really projections and probably should be called bosses. The material of these ornaments it was

impossible to determine. On the Toltec it is noted twice on figures in the North Colonnade, eight times in the Temple of the Warriors group (fig. 550). A Maya also has the same ornament (fig. 651).

Two of the atlantean table figures in the Temple of the Little Tables have it; others of the same type show the ornament with a single boss. It may well be that the circular plate with no protuberance represents the same decoration, as both appear on atlanteans associated with the same structure.[18]

(7) Mosaic cape. This shoulder covering of beads, mosaic work, or possibly feathers seems to be primarily a Maya garment and is described in Section 3 of this chapter.

Tula. Most of the types of breast ornaments recorded at Chichen are also known at this site. The conventionalized bird is most common. It occurs on all four figures on each side of the restored pillar (fig. 561). In the two upper compartments it accompanies a similar symbol worn on the hat (seen in detail in fig. 551). The tall atlantean (fig. 562) wears the "bird," the tie and ribbon holding it in place at the back. It appears on Stela 1 (fig. 552); below it is a bird flying downward. There is evidence that this form of ornament may have been made of mosaic (fig. 555).

Beads apparently sewn on a foundation and hanging on the breast appear on a warrior with his weapons (fig. 571). The head of an animal seems to decorate the breast of another figure (fig. 583). The jade pectoral is worn by one of the figures on the Tula vase (fig. 505) and others (figs. 507, 544). The round disk on the panel figure (fig. 490) is a type seen elsewhere.

Part of a Toltec columnar figure is shown in figure 563. His garters and anklet, round shield, and curved stick clearly show that he represents a Toltec; but the pendant of the necklace seems to be a perforated shell (*oyoualli*), which we have seen on most of the small Maya atlantean figures at the top and bottom of pilasters and columns.

6. Wristlets, garters, anklets. *Chichen.* The most common Mexican wrist decoration (fig. 526) is one or two bands of "fur," not unlike that covering most of the left arm of some of the warriors. The executioner on Disk H (fig. 393) has four bands on his left arm.

Perhaps the most significant feature of the Toltec, after the presence of the bird sign and the *atlatl,* is the roll or puff (fig. 554), possibly of some fabric, worn just below the knee or, often, at the ankle just above the sandal.[19] In the famous battle scene before a Maya village on the west wall of the Temple of the Jaguars (fig. 60) the Toltec have the knee and ankle pad, whereas the Maya villagers wear only the sandal. In a few cases (Lower Temple of the Jaguars, C12) a serpent is coiled around each ankle. In the Ball Court bench and on ball-players in general, the right knee is covered by a pad.

On the gold disks (fig. 553) the Toltec seldom wear the roll but instead a band garter from which are suspended beads or bells. In one case the usual roll has pendants. The tie holding the garter is shown in figure 553,*e*.

In the Lower Temple of the Jaguars the figure seated within the sun disk is probably a Toltec (fig. 271). He wears a cuff and an ornament on his ankle, resembling the cup and tubular bead of a Maya breast ornament.

Later, we shall note the tapelike bands with hanging ends used as garters and anklets, most commonly seen on an aberrant type of Toltec.

A kind of wrist and ankle decoration often noted in the Maya codices, especially on the Maya, is on the seemingly dancing Toltec on a capstone (fig. 540).

Tula. The roll is most common here as garter and anklet. The two upper figures on the restored pillar (fig. 561) have them; the tie by which they are fastened is shown on the large atlantean.

The two lower warriors on the pillar have a tapelike band with hanging ends, giving the effect of a number of strands each ending in a kind of bowknot (fig. 508). This is noted on other figures which came from columns. It is interesting to observe that at Chichen this decoration is more commonly found on the "anomalous" Toltec.

The figures on the Tula vase wear bands; that on Stela 2 (fig. 563A) has a bead garter.

7. Sandals. *Chichen.* Of the considerable variety of foot-covering the most common Toltec type is the kind provided with a heelpiece (fig. 556)[20] and an ankle strap or a "puff" in place of the tie. Sometimes the "puff" is eliminated by the "roll" of the anklet. There is also a "slipper" type on one foot of the ball-players. Some examples from the Cenote disks are shown in figure 553.

Tula. The sandal with heel protection, seen on the tall atlantean column, carries a design of a feathered serpent (fig. 116). The two personages on the Tula vase also have the heel device.

Defensive weapons. *Early references.* Among the weapons used by the early natives, according to a *relación* (RY, 2:186), were shields (*chimas*). "For defense they carried . . . round shields made of little strips (of wood) strongly plaited together on two sides similar to ours in size with hand hold and decorated with the skins of deer and jaguar" (RY, 1:80–81).

Body armor consisted of "twisted *mantas* made into rolls and worn about the body and there were some of them so strong that arrows could not penetrate." In another account (1:41) one reads: "For the protection of the body they wore a strip of cotton cloth, narrow and very long, which they wound many times about the body and they pulled it extremely tight. Others wore sleeveless jackets quilted with cotton." Landa's reference (1941, p. 35) to jackets made strong with salt and cotton was probably mistaken.[21] Sometimes the legs were enclosed in quilted armor.

Chichen. (1) Arm protection. One of the invariable features of a Toltec warrior's dress was the covering worn on the left arm. Sometimes it seems to be flexible and textile-like; at other times, like bands of "fur" (figs. 539, 549, 554). In the bench of the Great Ball Court both arms of the players are covered.

The padded arm is seen on at least one of the nude Toltec on the pilasters of the Mercado and on the skeletonized warriors on Mausoleum II.[22]

Sometimes, as in the Lower Temple of the Jaguars (fig. 556), the arm with its darts appears through a flexible protection. The Toltec in figure 526 and on Disks A and B from the Sacred Cenote show this decoration or safeguard hanging down from a ring around the arm. The arm appearing through the covering, as if through a skin, is found in the Northwest Colonnade (fig. 535).

(2) Shield. This device is seen both as a decorative element on buildings and as an implement carried by warriors pictured on fresco, in bas-relief, and in the codices. The Toltec warrior is

usually shown without either round or square shield. His hands are fully occupied: his right with an *atlatl;* his left with the darts, sometimes a bag, and often the "curved stick." The last may have served to ward off missiles.

The round shield with a center design of several half-moons enclosed by a border from which hangs a fringe is a Toltec feature. It is seen, picked out with colors and repeated over 12 times, on the Temple of the Jaguars façades and on the Castillo *sub.* In both cases, the shields are associated with a procession of jaguars.

The same shield is held by a Toltec warrior on Disk F from the Sacred Cenote and on the battle scene on the west wall of the Temple of the Jaguars fresco (fig. 557), where it is carried by a figure along with a plumed serpent. A similar chieftain in the same painting carries a shield in the center of which are 10 or more circles (Seler, 5:338). Fighting warriors on this fresco (fig. 60), both Toltec and Maya, carry round shields. Some have the device of a single half-moon; some seem to be half-covered by a kind of fringe (Seler, 5:336–37).

In the Lower Temple of the Jaguars (B10) the inside of the shield shows that the arm of the warrior is thrust into straps on the back. The usual hanging fringe is present.

On Disk G from the Cenote two figures in the canoe seem to be carrying plain round shields. The second person is clearly a Toltec; the one in front may be a Maya.

In the scene of the raided village on the Temple of the Warriors fresco the black-bodied captors carry the same plain shield. In the peaceful village (fig. 62) the six Toltec in the canoes carry the same defensive weapon, bordered with red.

The Toltec guard of the prisoners in the Northwest Colonnade (fig. 558) carries, with his *atlatl,* darts, and curved stick, a circular shield with three vertical stripes. A figure here (fig. 559) wears a U-shaped nose ornament and carries an axe and a draped round shield.

In the discussion of the Maya at Chichen we shall see more elaborate examples of the shield. This weapon of defense, often carried by the "anomalous" Toltec, is considered later.

(3) Back-shield. This seems more like a decoration than a defensive device. Seler describes it as a large rosette on the back of the loincloth, a "dorsal mirror" (*tezcacuitlapilli*). It is often shown as fastened by straps in front in two places (fig. 528).[23]

Practically all the figures wearing this device are Toltec. One exception seems to be on Northwest Colonnade (fig. 659) where a skirted figure, making an offering and carrying a serpent staff, might be identified as a Maya sorcerer. Two other figures on the same column wear the shield and are clearly Toltec.

On the Temple of the Jaguars pilasters (fig. 526) the shield is common; in the Lower Temple of the Jaguars, exactly half the Mexicans wear it. One of them (fig. 560) has a shield in front as well as at the back.

Four of the chacs who hold the body of the victim to be sacrificed on Disk H have it, but it does not appear on any other Mexicans on these plaques. Some of the atlantean altar figures have it (Seler, vol. 5, pl. 23, no. 1).[24]

On columns of Group B structures this feature occurs, fairly consistently, on the Toltec personages, as can be seen in many of the illustrations already given.

When divided into four sectors this circular device suggests a sun disk. When in the nature of a rosette, with more than four divisions at the center, it is very similar to the design between the bodies of the serpent guilloches on the Temple of the Jaguars (fig. 129), on the cornice of the dais of the Northwest Colonnade, and in other places. It also appears on shields in the North Colonnade on Columns 4S,W and 13N,W.

Uxmal. Among the features on Stela 14 (fig. 604) which are associated with the Toltec sculpture of Chichen is "The device on the shield [which] is the same as that on the shields of the Temple of the Jaguars . . ." (Proskouriakoff, 1950, p. 164).

Tula. (1) Arm protection. The left arm of warriors is practically always shown as padded (figs. 507, 508, 552, 561). On the left side of the atlantean roof support (fig. 562) the hand holding the curved "weapon" comes through a protection hanging from a ring on the upper arm, exactly the situation in the Lower Temple of the Jaguars (D10, D12) and on Disk B at Chichen. Lower on the Tula figure is a band, decorated with a stepped fret, seemingly around the strands of the textile or holding the darts behind. This is similar to the arrangement on the darts in the conventionalized collection of the weapons occurring four times on each of the square columns.

(2) Back-shield. The tall atlantean roof support in the main temple and each face of the square column (figs. 561, 562), all showing Toltec warriors, have the back-shield. On the former, the device is tied on exactly in the same manner as those at Chichen, and it shows a design (fig. 248) with a human face in fairly high relief surrounded by two Xiucoatls.

On both panels of the Tula vase the two figures have the back protection or decoration.

(3) Round shield. Up to the present time this has seldom appeared at Tula. The most interesting example is on a columnar figure (fig. 563), definitely Toltec, with curved stick and darts. This person has already been mentioned as wearing a shell pendant, usually found only on Maya.

The second example (fig. 563A), on a stela, shows the shield and darts in the left hand and a stone-pointed spear in the right. The latter is very uncommon at Tula. The personage seems definitely to be a Toltec as he has, as part of his headdress, a Tlaloc and the year symbol, the combination found on another stela here. A suggestion has been made that this monument has Maya characteristics.

A crude bas-relief, found in Edificio 3 in 1950, shows a figure (fig. 562A) with back-shield, feathers in the hat, and possibly an *atlatl.* The whole execution is poor and probably belongs in much the same class as that of the roof stones from this same *sala.*

Valley of Mexico. (1) Shields. The rosette design just noted at Chichen occurs, among many other places, at Tenayuca (Tenayuca, 1935, p. 303) and is represented in front of several spears on the Tlaxcala *lienzo* (see also Batres, 1900, p. 35). A shield of Huitzilopochtli shows a slightly different arrangement of the half-moons (Nuttall, 1891, pl. 1).

Attention is called to the numerous designs on shields described and pictured by Sahagun. The shell in cross-section, a symbol of Quetzalcoatl, is of particular interest here (see fig. 234, which also shows the pointed hat and *atlatl* typical of this god).

Offensive weapons. 1. Bow and arrow. The late introduction of the bow and arrow into Middle America, especially into the Maya area, is considered in Section 3 of this chapter.

2. Atlatl.[25] During the Mexican periods the most common offensive weapon pictured in the archæology of Middle America is the *atlatl* or throwing-stick used with darts.

Early references. Landa (1941, p. 31) mentions this weapon only once: ". . . they had a certain method of throwing darts by means of a piece of wood about three fingers thick, pierced to about the third of its length, and six palms long and with this and with cords they threw with force and accuracy."

Classic Maya examples. These will be discussed in Section 3 of this chapter.

Archæological specimens. Several examples of the wooden throwing-stick were recovered from the Sacred Cenote (Lothrop, 1952, fig. 53,*d*). On account of the hook at the end, this may be a ceremonial form of the weapon. Another has a painted design upon it.

Follett (1932) pictures a curious "jade ceremonial *atlatl*" found by Gann at Douglas, Rio Hondo, British Honduras.

Several specimens in wood, dating from Aztec times, have found their way into European and Mexican museums (Saville, 1925).

Chichen. The most consistent weapon of the Toltec warrior is the feather-decorated *atlatl* with its stone-pointed darts. In most of our illustrations of Toltec warriors the throwing-stick and its darts are present (figs. 556, 557, 560). The weapon is excellently shown on the gold plaques and is borne by four of the Toltec emerging from heaven, as we see them coming from a sun disk at the top of the columns in the Temple of the Warriors and its Colonnade.

An unusual type of throwing-stick carried by two Maya figures (A9, A10) in the Lower Temple of the Jaguars will be mentioned later.

A figure with a spear and an *atlatl* of rather unusual type confronts the open jaws of a serpent on a jade bead from the Sacred Cenote (fig. 564). As most of the figures on similar beads are Toltec, it can be assumed this one is also.

Other atlatls. An unpublished figure of a monkey-like animal with throwing-stick and darts incised on a human idol in green stone, possibly from Oaxaca and now in the Peabody Museum, is shown in figure 566. The design at the elbow may be the Maya notation for the number 8. A figure with *atlatl* (fig. 567) is noted on a fresco at Tepantitla, Teotihuacan.

Another is shown from the Mitla painting (fig. 568). The bottom row of figure 569 shows Mixtec weapons from the Laud and the Nuttall; the top row, unusual forms from the Huasteca.

No attempt will be made here to discuss or illustrate the use of the throwing-stick in Mexico as this is covered in the works named in Note 25.

Tula. Practically all the Toltec figures here carry the *atlatl* in their right hand, the darts and curved stick in the left.

The armor-like design, alternating with the warriors on the square pillar, contains the *atlatl,* the curved implement, the darts, and possibly the feathers which often go with them. A band, usually decorated with the stepped fret, may hold the darts together, as just described on the large atlantean figure. Above this is the bowknot-like design worn as part of the garter or wristlet.

The use of the fingers in the manipulation of the throwing-stick is excellently shown in the atlantean column.

In part of a pillar (fig. 570) almost all the features of a Toltec warrior appear: the bird and the feathers on the hat, the nose bead, the "bird" breast ornament, the back-shield, the padded arm, the *atlatl,* and the darts. Another warrior (fig. 571) from Edificio 3 shows the rolls at ankle and knee, the circular earplug, nose button, and pendant together with the "bird" over another breast decoration. He carries an *atlatl,* darts and the curved "weapon" described below.

Codices. The *atlatl* is shown in several places in the Maya manuscripts, especially in the Venus almanac (Dresden 46–50). One of the warriors carrying *atlatl* and darts appears in figure 565, where the Venus sign is near the end of his headdress (see also Dresden 60a and 65b).

3. "Bouquet" type of atlatl. *Chichen.* There is a perplexing object carried in the hand of several figures in Group B structures. Morris (1931, p. 459) speaks of the "trefoil" or usual type of *atlatl,* and the "bouquet or feather duster type" (fig. 572) as the aberrant form. Some of the latter are clearly throwing-sticks but, on the other hand, others (fig. 573) may represent torches, as will be mentioned later. In some cases (fig. 548) the object is pointed downward (see also Northwest Colonnade, Column 53W; Temple of the Warriors, Column 9W).

It is sometimes difficult to classify ethnically the individuals carrying these objects. If the individuals have the bird on the hat, with or without the conventionalized form on the breast (Northwest Colonnade, Column 53W), the back-shield (Temple of the Warriors, Column 9N), and the usual Toltec garter and anklet, there is little question about the nationality. Many of the individuals carrying the decorated *atlatl* or torch belong to the type which has been called, for convenience, the "anomalous" Toltec. They have most of the characteristics of the Mexican, including the curved club, next described. The garter and anklet, however, usually conform to the Maya type (Northwest Colonnade, Columns 38S; 39N,W; 47W).

4. Curved club. *Chichen.* There is a slightly bent wooden implement which has been called "a sign of high rank, perhaps of the priesthood," "a bunch of grass," "a curved stick with which darts can be battered out of their deadly course," etc. It may be the last that is a defense weapon: it often shows striations running lengthwise; in a few cases it is not curved.

This object is most commonly carried in the left hand with the darts, and sometimes also with a bag or pouch, whereas the regular *atlatl* is held in the right hand. It is also found without the throwing-stick. In several cases there is a club in each hand.[26]

In the lower groups of figures on the Temple of the Jaguars frescoes, the Toltec seldom has this stick. On the top of the altar (fig. 574) formerly in this temple it occurs together with the *atlatl,* darts, and other Toltec characteristics. In the Lower Temple of the Jaguars practically all the Toltec carry the throwing-stick and darts; almost no one has the curved "weapon." This is in marked contrast to the Castillo figures.

On a circular piece of carved jade from the Cenote (fig. 547) are two Toltec, one of whom holds the curved implement. It does not appear on the gold disks.

The square capitals from some round pillars in the Toltec Annex of the Monjas depict figures who are all Toltec and lying down. One carries an *atlatl* in one hand and the curved stick in the other (fig. 575).

In the Castillo, the *atlatl* is seen only on personages on the door jambs leading to the corridor. Most of the 24 other figures on the pilasters and jambs of the vestibule and door and on the two interior pillars all carry the curved stick, four of whom have one in both hands (Seler, 5:286–87).

All 12 figures on the columns of the outer room of the Temple of the Chac Mool and the six on the pilasters are Toltec but, in place of the *atlatl,* most of them carry the curved "weapon." Two carry a straight stick. Several of these personages make the gesture of surrender, described later. In figure 576 we see the stick held in each hand and the sign of defeat.

In the Temple of the Warriors 51 individuals carry the two weapons; only three have the throwing-stick alone. In the Northwest Colonnade 130 have both, 15 the *atlatl* alone.

In the frescoes of the Temple of the Warriors the black priest who performs the human sacrifice (fig. 395) raises the curved stick as if to strike the victim. In the village scene (fig. 62) the Toltec captors, with black bodies, carry a shield, darts, and the "weapon." The only *atlatl* definitely seen in this picture seems to be carried by a Maya. There is an inconsistency, however, as in the attack on the village (fig. 60) where several of the Maya defenders, who appear as prisoners below, are also using the same "weapon" in the scene above. Here, on top of a house, stands a black warrior with his shield, darts, and the "weapon."

On the altar panel of the Northwest Colonnade (fig. 596) both the much-feathered *atlatl* and the stick are carried by the same individual. The stick is also very common in the North Colonnade.

Tula. The curved stick is carried by all the figures on the restored column (fig. 561), in addition to appearing in the armor-like designs on the same monument. The figure on the atlantean column (fig. 562) also carries it in the same hand with the darts.

5. Flint knife. *Chichen.* This weapon, possibly with a handle, is connected with human sacrifice on Disk H from the Sacred Cenote.[27] The knife used to decapitate the victim of the ball game on the bench of the Court at Tajin and at other places seems to lack a handle. This type of knife is commonly associated with Maya personages at Chichen and will be taken up later. The somewhat questionable Toltec in the Lower Temple of the Jaguars (fig. 542) carries one.

Other weapons. The spear with stone point and feather decoration and the club with projecting flint or obsidian flakes on the sides are usually found with Maya figures.

Chichen. When the Toltec has a round shield, he usually carries some weapon other than an *atlatl.* In figure 559 the Mexican has an axe; in figure 640 a Maya has a kind of pointed stone dagger and shield. In both cases the individual wears a U-shaped nose ornament.

A Mexican in the Temple of the Chac Mool (Column 2W) carries, in addition to the curved club, a curious banner on a staff.

Tula. A stela here (fig. 563A) has a figure carrying weapons consisting of a circular shield and a spear with its stone point above a circular bead design and feathers—a typical Maya weapon. He has a year sign and Tlaloc on his headdress but he does not seem to be the usual Toltec warrior. The two other stelae at Tula (one of which is shown in fig. 552) present definite Toltec characteristics and each has its Tlaloc near the top.

Bag and olla. These are features, together with the elaborate apron, which are generally associated with Classic Maya.

Chichen. Among the Toltec here the bag is uncommon. On the jambs of the Temple of the Jaguars a small one (fig. 526) is carried by many of the figures in the hand with the darts and, in some cases, also with the curved weapon. The bag is called "a hunting pouch (*matlauacalli*)" by Seler (5:280), who remarks that it is like those "carried by Camaxtli, Amimitl and Mixcouatl, the gods of war and of the hunt who are identical with the souls of the dead warriors."

By far the most elaborate bags are those carried by the 24 Toltec on the faces of the six square columns of the portico at the south end of the Great Ball Court. Each hangs by a flexible handle from the wrist or arm of the warrior. The personage in figure 577 has one of woven material with a design and with tassels hanging from top and bottom. The bands around his arm, the puffs at the knee and ankle, the "weapon," and the back-shield are all typical. At the top of each figure is a mask which often shows the sun in the center of the headband and the Jaguar-Eagle-Bird monster below. On each of the jambs flush with the lateral wall is a single Maya. On Column 5N there is a serpent "name" and a Venus sign.

In the Temple of the Warriors fresco part of the figure of a Toltec is shown with padded arm and darts, carrying an olla (Morris, 1931, pl. 143,*b*).

In the Lower Temple of the Jaguars (fig. 578) a warrior carries in the same hand with his darts a handled olla, around the neck of which a snake is coiled. Again (fig. 542), a person who is probably a Toltec but has some Maya characteristics has a large elaborate bag.

In the Temple of the Warriors (fig. 579) one of the very few seminudes, and also one of the definitely female figures, carries much the same type of container. As the three other people on the column are Toltec, she is classified likewise.

A decorated pouch with longish handle is observed in the Northwest Colonnade, Column 48E.[28] On the Caracol stone a figure identified as a Toltec carries a bag seemingly made of netting.

Other Toltec Military Types

The majority of Mexican warriors at Chichen, as we have just seen, show a fair degree of consistency, as is also true of the military at Tula. A few other types, all relatively small in number, can be noted at Chichen, but with some exceptions they are not found at Tula.

Anomalous Toltec. *Chichen.* In Group A structures and on the disks from the Sacred Cenote there is, with few exceptions, little difficulty in distinguishing Toltec from Maya. This is not always the case, however, with individuals in some of the Group B structures, especially some 20 personages appearing on the columns of the Temple of the Warriors and its Colonnade. For convenience, these have been called "anomalous."

Most of these figures show *atlatl,* darts, and curved stick. The bird is usually either on the hat (Northwest Colonnade, Column 53N) or on the breast (Column 43N). In some cases there is also a back-shield (Column 57N). Hence there is no reason why they should not be classified as Toltec.

However, the roll or puff at the knee and ankle, so consistent a criterion of the Toltec, is missing. The Toltec bird, curved stick, and darts are present but a garter of beads is worn (fig. 580). The *atlatl,* other weapons, and the padded arm occur but there are plaited bands with knots or ends at the front which serve as garters and anklets (fig. 581).

Tula. The Toltec with his usual dress and weapons but with the tapelike knee and ankle straps is seen on the lower figures on the Tula pillar which has been restored (fig. 561). Other partially recovered columns show the same type (figs. 582, 583).

As this kind of garter and anklet appears on the same monuments with the usual roll it is probably unnecessary to separate them.

Sometimes a kind of bowknot is seen at the ankles (Temple of the Warriors, Column 8N) along with the last two variants (Proskouriakoff, 1950, fig. 27,*f′,g′*).

BIRD WARRIOR.[29] *Chichen.* Among the nonconformist Toltec is one associated with a bird. A human face lies within the jaws; the feet are often represented by the claws. The nationality is clear, as the figure usually carries an *atlatl* or wears the typical bird sign (figs. 584, 585, 586; see also Temple of the Warriors, Column 8W; Northwest Colonnade, Column 48S; North Colonnade, Column 7S,W).

Other figures on the columns have a bird head but human feet (Temple of the Warriors, Column 8N). A small group (Temple of the Warriors, Column 11E, fig. 573) which has what appear to be bird jaws but no Toltec attributes may be Maya.

The bird claw serves as a hand on a human figure on the Temple of the Warriors fresco (Morris, 1931, pl. 150,*b,c;* fig. 311).

An atlantean, found near the High Priest's Grave (fig. 587), has a lower jaw, a bird's beak, and claws for feet (Seler, 5:277).[30] A head with the jaw treated in the same way is on a façade decoration of the Northwest Colonnade (fig. 588).

In the disks from the Sacred Cenote the Toltec with his face in the jaws of a bird is fairly common. This is seen on the priest performing the human sacrifice (Disk H), the sky god with his *atlatl* (Disk G), the much-feathered figure standing before a Maya (Disk J), and two eagles, each with a human face in its mouth, attacking a Maya (Disks L and M). In the last two there is undoubtedly a connection with the Jaguar-Eagle cult. A Cenote jade (fig. 589) shows a face in the bird's beak.[31]

The head of one of the Maya warriors in the Lower Temple of the Jaguars (fig. 647) is in the open jaws of a bird. On the façade of the west annex of the Caracol a human figure has a bird beak (Ruppert, 1935, fig. 317). On the west end of the north wall of the North Temple of the Great Ball Court is a figure of a bird-man with wings.

Tula. Here is the warrior (fig. 446) with the claws of a bird above his own feet. The same idea appears in other places: Borbonicus 13 (fig. 447), Vienna 2, and on a relief shown by Peñafiel (1890, pl. 168). The right arm of the main contestant in each panel on the Tula vase ends in the claw of a bird.

Other places. Thompson (1941a) considers and illustrates birds and bird-men. A bird-god appears on a Tulum fresco. In Paris 8 a human figure has a vulture's head. Many personages in the manuscripts have animal heads. In the British Museum there is a famous flint knife with a mosaic handle which depicts a human face in the beak of a bird.

Caso and Bernal (1952, pp. 199–216) give many examples of Oaxaca urns showing "a god with a helmet of a bird with a wide beak."

WARRIOR WITH TORCH. Another group of nonconformists comprises figures carrying what looks like a flaming torch. It is sometimes difficult to distinguish this feature from the "bouquet" type of *atlatl.* Some of the figures already described show this feature: two of the bird-warriors (Temple of the Warriors, Columns 8N, 11E [fig. 573]), an "anomalous" type (fig. 580), and two wearing the skirt with the star symbol (Temple of the Warriors, Column 9N; Northwest Colonnade, Column 47W [fig. 572]).

Sometimes the flame, as in the "bouquet" type of *atlatl,* is held in reverse position (Northwest Colonnade, Column 39N [fig. 183]).[32]

ANIMAL-HEADED FIGURE. Another variation in the depiction of the Mexican warrior shows the head of the personage in the jaws of an animal,[33] sometimes a jaguar (Temple of the Warriors, Column 5N; Northwest Colonnade, Columns 27N [fig. 590], 55W, 57W [fig. 591]). The figure on Column 47N and a Maya prisoner on Column 37E clearly have their heads in the jaw of a reptile.

WARRIOR WITH FEATHER SHAWL. *Chichen.* There is a type of combatant (fig. 592), usually with all the ordinary accoutrement of the Mexican, who wears a long feather cape reaching to the ground (see also Temple of the Warriors, Columns 4W, 18W). This type of clothing also appears, in some cases, on the bird-warrior (Temple of the Warriors, Column 8N). The secondary Toltec on Cenote Disk H wears a long feather cloak; a shorter cape is worn by the figure on Disk F.

Some of the prisoners who have been regarded as Maya wear this shawl (Northwest Colonnade, Column 25N).

The long feather cape is common on the otherwise nude figures on the Mercado, some of which are clearly Toltec.[34]

Tula. There is a curious stone from this site which has an unusual figure with feather cape (fig. 593). From the heavens comes a bird with possibly the Quetzalcoatl sign on his breast and human head in his jaws. Speech is indicated before the main figure, on whose wrist is a ribbon bow.

WARRIOR WITH STAR-SYMBOL SKIRT. *Chichen.* The star device is common over a great part of central and southern Mexico and other regions (Chapter III-7H). Spinden (1913, p. 209) speaks of it as a "celestial eye." At Chichen, in Group A structures, it is on the so-called Venus stone on Mausoleum III and forms the background of a Toltec figure on the Temple of the Jaguars fresco.

Here we are primarily concerned with it as worn by the Toltec warrior to form a kind of skirt. It is limited to figures in Group B structures. One of the best examples appears in figure 594. The torch and skirt are shown in figure 572. A figure (fig. 287) with yellow body is from the Temple of the Warriors fresco. Another here (Morris, 1931, pl. 167,*d*) and one on the Northwest Colonnade, Column 40W, both with bodies having vertical red stripes, wear the skirt. The individual on the Northwest Colonnade, Column 44W, representing death, is similarly attired.

On the dais of the Northwest Colonnade (fig. 595) two figures, among many associated with the feathered serpent, wear the star sign. The corresponding figures on the altar of the North Colonnade (Morris, 1931, p. 336) also show it, a fact which would seem to give its wearers some special significance.

Two personages with red bodies wear this skirt on the altar panel of the Northwest Colonnade (fig. 596). Both seem to carry a decorated *atlatl* but one has the cranial deformation which is a Maya characteristic.

Tula. Here are exact duplicates with the Chichen star-skirt-clad figures: in a section of Pilaster 8 from the main pyramid (fig. 289) and on the new frieze in the Palacio Quemado (fig. 290).

OTHER TOLTEC FIGURES

FIGURES OF DEATH. It has already been pointed out (Chapter III-7E6) that most of the figures of death seem to be Toltec. These do not, of course, include persons who have been sacrificed.

GODS. In general, all the gods represented belong to the Mexicans. Tezcatlipoca, for example, appears in the Temple of the Chac Mool, the Temple of the Warriors and its Northwest Colonnade as a typical Toltec warrior. Curiously enough, he does not seem to be represented in Group A structures. Tlaloc, on the other hand, is noted in both groups (Chapter III-7G).

CENOTE JADES. The greater part of the carved jade pectorals recovered from the Sacred Cenote belong to the Late Classic period and undoubtedly come from the south. There are a very few, however, which evidently are Mexican in origin. One is a feathered-serpent head (fig. 130); another (fig. 131) is a Toltec warrior shown with his *atlatl* and a serpent. Others are two Mexicans, seemingly guarding a Maya prisoner (fig. 547), a human being who has had his heart removed (fig. 397), and several jade beads with a serpent design.

ATLANTEAN ALTAR FIGURES. These small interesting images, carved in the round, have usually been considered as exclusively Toltec, but they are seldom represented as warriors. Those which support the Temple of the Jaguars altar and the one in the Temple of the Big Tables are unmistakably Toltec; many have the conventionalized bird and the back covered with a feather shawl. Those in the Temple of the Warriors are less clearly Toltec, as are those shown by Seler (vol. 5, pl. 23), although one plainly shows a back-shield.

The fact that the type in the north runs into Aztec times indicates that they are all essentially Mexican.

TOLTEC ON SUN DISKS. The Toltec on sun disks (see Chapter III-7H) in Group A structures are, in most cases, warriors. The greatest number in any one place is in the Temple of the Jaguars, where at least seven are on the frescoes and three are seated on the back of jaguars or on a jaguar altar. These individuals seem to have *atlatls* and darts, but their dress is more like that associated with the Maya. A similar figure in the Lower Temple of the Jaguars (E6) has no sign of being a warrior. Toltec warriors emerge from the partial sun disks on the upper part of the columns in the Temple of the Warriors and its Northwest Colonnade.

BALL-PLAYER. Although not warriors, the contestants on the benches of the Great Ball Court and the court behind the Monjas are possibly Maya and Toltec. The court, the game, and the players have been discussed in Chapter III-10.

MAYA-TOLTEC SCENES AND ENCOUNTERS. The so-called "battle scenes" on the Cenote disks show a series of generally hostile meetings between the two ethnic groups. These encounters, found also on the frescoes and in bas-relief, are considered in Chapter IV-4.

PRISONER-SLAVE. In many cases these encounters lead to imprisonment and enslavement (considered in Chapter IV-4).

PROCESSIONS. Especially in the later periods, a row of men or animals is a prominent feature in Middle American art. This arrangement may be carved on the façade and on the back or interior walls of structures, on lintels, altars, benches, or painted in the frescoes. No attempt is made here to consider this subject in the Classic Maya period beyond mentioning the excellent examples on the frescoes at Bonampak, where we see processions of musicians with trumpets, rattles, and a drum (Rooms 1 and 3), and of warriors meeting at a conference (Room 2).

Chichen. With a few exceptions, most of the persons in file, either standing or sitting, are found in the later period and are nearly all Toltec. The largest procession comprises some 114 figures, arranged in seven lines, in the Lower Temple of the Jaguars. Five of these files are on the back wall and vault; two are on the east or front vault over the entrances to the room. Each line is separated by a guilloche of serpents, usually with a head and tail at each end of the file at the side of the room. The lowest line (A) and at least two figures in the one above (B) are Maya, as are two in Row F (at the top of the east vault), and one in Row G just below. The center personage in Row E may also be Maya. All the others are Toltec (see Maudslay, 1899–1902, pls. 44–51; Carnegie Institution of Washington, photos. 53-24-134–49). Below the lowest line of figures is a border composed of an undulating line of foliage with flowers and a kind of procession of human figures, birds, and masks.

On each of two parallel benches of the Great Ball Court are lines of Toltec and Maya players, about 84 in all, arranged in three groups on each side.

On the North Temple of the Ball Court there are several lines of personages. In the center of the back wall, above the border design, there is in the lowest procession a central altar upon which on either side converge two lines of five Toltec warriors (Marquina, 1951, photo. 439).[35]

Above this line, on either side of a figure surrounded by flames and wearing a dotted garment not unlike that on the figure in the center of the border below, there are, respectively, seven and six seated figures. Several on the right wear the turban headdress. All are Toltec.

Centered above, in a circular serpent design, is what appears to be a sun disk, in the middle of which is a personage on a jaguar seat. Speech is indicated, similar to the speech-scroll before the figures on the sun disks on the wooden lintel of the Temple of the Jaguars. On either side is a procession of Toltec warriors; the leader of the right rank is standing in front of a feathered serpent.

In the Castillo, the medial beam on the west column on the north side shows a line of seated Toltec, each with a bird on his hat. It is possible that their wrists are joined by a rope (Carnegie Institution of Washington, photo. 53-24-434a).

Mention has been made of several altars, daises, or benches which show remarkable similarities among themselves and also with carved benches at Tula and stone altars at Tenochtitlan. The Chichen examples belong in Chichen III. Almost without exception each construction has an overhanging frieze with lines of undulating serpents (described in Chapter III-7C1). Below this are processions which usually meet at the center of the front of the table.

On the dais of the Northwest and the North Colonnades (fig. 597) there are, respectively, 30 and 31 figures. Excepting four Maya priests on each altar, all are Toltec warriors (Morris, 1931, pls. 124–27, 330, 336). On the front and each side on the frieze above are two serpents facing each other. Between each pair is a bowl from which three flaglike objects project, possibly a *zatacapayolli,* a design which frequently appears on Mexican

quauhxicalli. It represents the ends of agave leaves used in the bloodletting ritual (Seler, 2:718).[36]

On the Mercado is the same pattern but with rosettes in the curves of the serpents. On the front and each side (fig. 598) are two groups of seven or eight prisoners tied together with a rope and each held by a Toltec leader. Between the two groups on the front are three figures.

In the fresco on the two benches in the interior room of the Temple of the Chac Mool there is a design on the south with a line of seated Maya, another on the north with Toltec. They seem to belong in this category as there is evidence of a section of serpent which was probably part of the usual frieze along the top of the face of the table.

On a bench in a room in the structure on top of the wall of the ball court (Str. 3D4) near the Mercado there is the usual serpent border at the top, and at least six Toltec, each holding presumably a Maya by the hair. Part of the design is a figure with a curving serpent (Ruppert, 1952, fig. 129*c*,*d*). The groups do not always face in the same direction, but they are nevertheless included here under "processions."

Another example is on the dais of the Northeast Colonnade. Here two serpents are intertwined with rosettes in the interstices. The procession below consists of two lines of Toltec warriors, each associated with a feathered serpent.

In the Toltec Annex of the Monjas on the face of the bench in the southeast corner of the south portico is a procession of at least six Toltec, each with a Maya prisoner.

In the Temple of the Warriors the fresco on the west wall of the inner chamber "was covered with rows of warriors, priests and dignitaries marching in formal procession" (Morris, 1931, p. 405). Among these was the "sorcerer," who will be discussed in Chapter IV-3. Two Toltec warriors appear, possibly as part of a procession, in this temple (Morris, 1931, pl. 152*a*).

In the Temple of the Wall Panels there is a processional grouping of Toltec warriors and other figures in the first two lines on each of the wall bas-reliefs, and a row of seated figures at the bottom.

The effect of a procession is sometimes made by the personages on a group of neighboring columns. As noted by Proskouriakoff (1950, p. 171), single figures on the four sides of columns "also must be regarded as a group arrangement, especially when it is adapted to a colonnade, for a specific effect is gained by its repetition." This is especially seen on the columns of the Northwest Colonnade where there is a group of 32 figures at the base of the stairway, mostly Maya prisoners. These and other captives on the Mercado dais, Str. 3D4, and in the Temple of the Wall Panels, are discussed in Chapter IV-4.

Processions of animals here and at Tula are taken up elsewhere.

Tajumulco. On the edge of a stone table here is a line of heads, each in the mouth of a serpent. This may be considered a procession.

Tula. On a bench in the colonnade of the main temple is a "frieze of the caciques." There is a procession of 19 Toltec figures below a cornice of six undulating serpents, very similar to the design on altars and benches at Chichen (fig. 599).[37] It is of considerable interest that the mosaic headdress, the conventionalized and realistic bird, the pendant nose ornament, and the cheek button (fig. 543) are all shown in this procession (Moedano, 1947a).

A bench in Sala 2 of Edificio 3 has a frieze of undulating serpents above a procession of figures (fig. 600) similar to that of the colonnade just described. There seems to be part of a procession of warriors, two of whom are shown on a stone (fig. 601). One, at least, carries a spear with decorated stone point; each has a round, partially draped shield very similar to the type carried by those attacking a Maya village in the Temple of the Warriors fresco at Chichen.

Malinalco. The remains of a fresco in Lodge III show three Mexican warriors in a procession (Marquina, 1951, p. 213).

Huasteca. On an altar at Tamuin is a fresco showing a procession of 11 warriors, the first five of whom seem to be seated. Above is a frieze of stepped frets (Du Solier, 1946; Marquina, 1951, pp. 414–15).

Tenochtitlan. Several stones here show processions. The most famous is probably the circular stone of Tizoc, showing 15 pairs of figures (fig. 352).

Another is the Altar del Centro Mercantil (Tepetlacalli de los Guerreros) which has four warriors on each of three sides, two warriors on the front, and two serpents on each of the four cornices (fig. 602). The two figures on each side of the Teocalli de la Guerra Sagrada might also be mentioned as a procession (Caso, 1927).

The frieze of the Calle de Santa Teresa was probably part of a bench. It shows a procession of warriors with their weapons, with Tezcatlipoca as the head of the group. The *zatacapayolli* from this frieze is commented upon in Note 36.

La Mesa de las Serpientes, undoubtedly the top of another monument similar to the two just described, has undulating serpents along its edge.[38]

Part of another procession from the Calle de las Escalerillas seems to have a painted frieze of feathered serpents (Seler, 3:96–97).

Guerrero. At Huitzuco was a well-known monument, now in the National Museum, on the top of which are two figures marching toward a pyramidal temple (Seler, 2:86, 144–45, 759).

Monte Alban. Among other examples, Stela 7 shows a procession on the right side. Each figure, wearing an elaborate headdress, represents Tlaloc, a jaguar, and serpents (Caso, 1928). On one of the carved jaguar bones from Tomb 7 at this site there is a line of seven seated figures before a design interpreted by Covarrubias (1946, p. 179) as "the birth of Quetzalcoatl from a tree."

Toltec military and other features at Chichen and Tula. Many writers have noted the similarities and identities of features at Chichen in its Mexican periods and their prototypes at Tula.[39] These, together with other regions, especially Tenochtitlan, have been summarized as follows: Table 10—architecture, including plan, decoration, and architectural subsidiaries; Table 13—gods, monsters, and astronomy; Table 14—the Jaguar-Eagle cult; Table 15—the ball court and players; Table 22—Toltec features. The inventory of identities and similarities in Table 22 is especially remarkable when it is remembered that only comparatively few representations from Tula were available to me. At Chichen, counting 1,327 main figures and 1,362 secondary bas-reliefs (not including any in the frescoes) there are almost 2,700 different personages.[40]

Toltec figures not found at Chichen. There are a few bas-reliefs at Tula which do not seem to have any direct parallels

at Chichen. The most striking of these are two limestone plaques in the Arensberg Collection at the Philadelphia Museum of Art (one is shown in fig. 608). The background is cut away, and the details are incised in very crude technique. The numerals, 7 in one and 8 in the other, suggest to Acosta a stone from Tula (unknown to me) with the date "2 Tochtli." Each relief shows a single Toltec warrior. The tunic, nose bead, ear ornament, and breast decoration are recognizable in figure 608, but the objects carried in the hands are difficult to determine.

A stone found in Edificio 3 (fig. 562A) clearly depicts a Toltec with feathers in his hat, an *atlatl*, and a back-shield, but the style is far cruder than any at Chichen.

A *carguero* from Temple B (fig. 609) is very different from any other at Tula or at Chichen. It is not greatly unlike one (fig. 610) from the Upper Usumacinta at the Peabody Museum, which, although undoubtedly Late Classic, offers, of course, no implications that the Tula one is from the same horizon.

Mention has already been made of a very unusual re-used stone (fig. 347) from Temple B, showing a strange profile mask and jaguar. The individual details such as the jaguar, the mask with its nose plug, and "the maggot sign," are found at Chichen but not as an ensemble.

Intercourse between Tula and Yucatan. The relationship between Teotihuacan in its Classic period and the Classic Maya about the year 500 has been noted. About 500 years later, we see a concentration of Toltec influence in architecture and art, religion and ritual, at Chichen. One question arises: Were there Mexicans in the country immediately preceding this epoch?

Proskouriakoff (1950, p. 170) writes: "It is possible that Toltec immigrants were in the country for some time before they established themselves as a dominant group at Chichen Itza or that they were settled for a time in some peripheral location where they were in contact with the people of Yucatan."[41] How did the Toltec influence reach Yucatan? "The happiest solution," writes Linné (1942, p. 201) "would perhaps be that of finding, if possible, an intermediary between Tula and Chichen Itza which could be made responsible, wholly or in part, for the Mexican infiltration of Yucatan. . . ."

The evidence of early Toltec in Tabasco and western Campeche is partially covered by Berlin (1953a, p. 103). "The meagerness of this archæological record prompted a fresh survey of this region where lie the westernmost outposts of Classic Maya culture. It was particularly hoped that we might find indications of a supposed Toltec movement from Tula (Hidalgo) to Chichen Itza, especially in view of the current belief that the Toltec cultural traits were transmitted to the Itza by contact with Nahuat-speaking nations west of Laguna de Terminos." The reported Atasta procession of jaguars similar to that at Chichen and at Tula, so far as it exists today, consists of a carved stone tablet of poor workmanship showing a prowling jaguar (?). This ought to discourage the search for an original Tula in this part of the southland, which fed its culture both to Tula, Hidalgo, and to Chichen.

If the Toltec came most of the way by water, as I suggest, it is difficult to understand why there are so few traces left of their trek across the peninsula to Chichen. I have already tried to make it clear that, in the view advanced here, the influence came directly from Tula. The cultural identities at this site and at Chichen do not show the end of two separate movements from a common source in southern Mexico, but a start at Tula with traits which persisted with practically no change until Chichen was reached.

Tula origins. The question can well be asked: what was the source of the initial influx into Tula of these features which seem, in general, to have moved *en masse* to Chichen? It is quite definite that the Classic stage at Teotihuacan was not the point of embarkation for the new Toltec ideas. In architecture, art, and ceramics (including pottery and figurines) there is practically nothing which can be traced back to Teotihuacan. If we could have found a Classic Mexican background for Tula as we have found a Classic Maya hinterland for the "Chichen Maya," all would be well, but we have just seen that this seems to be impossible.

The typical Mazapan pottery, found at Tula, does not appear at Chichen. Linné writes (1942, p. 201):

> As it may be supposed that in ancient times the women . . . were the makers of pottery, it is not certain that conquering hordes preserved their ceramic culture. It is possible that the women did not accompany the invaders, who, when by intermarriages they had become re-domiciled, found themselves the possessors of an entirely new type of pottery. [He continues] Acosta considers that the archæological finds (at Tula) prove that the bearers of the Mazapan culture erected the buildings at Tula, and that consequently they must have been the historical Toltecs. As was the case in Teotihuacan, in Tula, too, the culture was from the beginning fully developed, so that its origin is to be found elsewhere, possibly in the Tarascan territory.

There seems more, but by no means conclusive, evidence that an origin of some features of the Tula culture might possibly be in southern Veracruz.

Other Mexican figures in Yucatan. Outside of Chichen, the Mexican or Toltec remains are few and far between. These are discussed here.

Kabah. This is fundamentally a Puuc or Yucatan-Maya site dating in the Late Classic. Its archæology is varied.

One set of jambs in Str. 2A3 has representations of what are undoubtedly Maya (these will be taken up later).

In the two jambs of Str. 2C6 (Codz Poop) the figures have been declared "non-Classic, possibly Toltec" (fig. 603). On each jamb there is an upper panel containing two figures and a lower panel containing three, all Toltec. In the upper panel, a person in a short embroidered jacket is hurling a dart at his adversary by means of an *atlatl*, of somewhat different form from the ones already illustrated from Chichen. In the lower panel a figure with a stone knife seems about to sacrifice the one seated on the ground. The third figure, seemingly opposed to this, uses a throwing-stick and dart. It has been suggested, on account of the garter on the one leg and, in one case, a difference in the foot covering, that the executioner may be a successful ball-player.

Uxmal. Stela 14 (fig. 604) is the only one of 14 which presents Mexican characteristics. The minor figure on the right wields a spearthrower of the Toltec variety. He carries a round shield with crescents, which Proskouriakoff thinks is similar to those on the Temple of the Jaguars. The main personage is using a more unusual kind of throwing-stick. He wears a nose bead and has an ear ornament which we have described. His necklace reaches to his feet, which is a Maya characteristic, but his sandals are of the "Mexican type." "This monument,"

Plate 73A

writes Proskouriakoff (1950, p. 164), "tends to suggest a direct transition from the Classic style in its full flower to the Toltec style of Chichen Itza."

MEXICANS IN MAYA MANUSCRIPTS. In the comparative study of the Toltec, references have been made to the fact that the *atlatl* as a weapon and the round shield are fairly common in the Maya codices. The gods and the ceremonials are all seemingly Maya. There are some exceptions, however. One is the Venus Almanac in Dresden 46–50, which is generally associated with Mexico.

TOLTEC FIGURES IN MEXICO. *Tula.* We have already seen that the general appearance of the typical Toltec warrior at Chichen is duplicated at Tula. The so-called "anomalous" Toltec does not seem to appear here, except for a few columnar figures who wear as garters and anklets the tapelike bands with bows. The warrior with the bird feet and the figures with the bird claw on the Tula vase are found in Mexico, as is the personage with the star symbol worn as a skirt. No attempt is made here to trace Toltec figures throughout Mexico other than at Tula and on some of the Aztec monuments.

TOLTEC FIGURES IN AZTEC MEXICO. Table 9 shows various Middle American sites dating from about 1000, classified as Toltec, Chichimec, and Aztec, and roughly corresponding to Chichen II, III, IV, and V. We have made no attempt to separate these sites chronologically, but have emphasized primarily Chichen and Tula, with secondary interest in Mayapan and the East Coast. Next in importance come the remains in the Cotzumalhuapa region and Tajin, especially in connection with the Ball Court complex. With the exception of Mayapan and the East Coast, all these sites are more or less contemporaneous with both Chichen II and Chichen III. With the destruction of Tula, the occupation of surrounding sites in central Mexico is generally accepted. This would extend into the Chichimec and Aztec stages.

Our interest, at the moment, is centered on the survival of various features into the Aztec period, especially at Tenochtitlan and Tlatelolco, which were founded about 1325–37,[42] soon after the beginning of the period assigned to Chichen IV (1283).

History. Linné (1942, p. 203) says:

> The later Toltec were not altogether swept away. Part of those which remained were counted as a ruling class in the same way as the Pipil were in Guatemala. In "Historia de los Regnos de Colhuacan y de México" it is stated that in 1458 the chief of Toltitlán (near Cuautitlán) was of Toltec descent. The chronicler Ixtlilxochitl also reckoned himself as being of Toltec extraction, for from them the ruling dynasty of Texcoco counted descent. It is possible that part of the population migrated to Colhuacan and continued to live in that place.

Archæology. We have already noted the remarkable similarity in plan between the main Toltec section of Chichen and the religious center of Tenochtitlan. Likewise in type of structure and architectural subsidiaries, such as atlanteans, standard bearers, and chac mools, excavated in Mexico City itself. The serpent, the jaguar, and death are delineated the same way in both areas. In the realm of the gods, Tlaloc, Tezcatlipoca, the sun disk, and the star and year symbol are only a few represented both at Chichen and at Tenochtitlan. The jaguar-bird monster and the earth monster lengthen this list.

It is in human sacrifice and the Jaguar-Eagle cult that we find the closest connection between Chichen and Tula on the one hand and Tenochtitlan and Malinalco on the other. Although less data are available, the cult of the Ball Court should also be included here.

Evidence of this continuity into late times is well furnished by the bas-relief of many monuments. Among these is the pattern of the seven altars or benches at Chichen sculptured with a line of serpents at the top and a procession of warriors below, to which we add at Tula the "friso de los Caciques" and the newly discovered parallel in Sala 2 of the Palacio Quemado.

In the discussion on processions we noted a number at Tenochtitlan. The undulating serpent above a line of warriors here furnishes a striking parallel with some at Chichen and Tula. Among these are the Mercantile stone, the one from the Calle de Santa Teresa, the Mesa de las Serpientes, and the one from the Calle de las Escalerillas. A further parallel is seen in the *zatacapayolli* sign found at Tula and Tenochtitlan, and a somewhat similar design at Chichen.[43]

Mention might also be made of the connection between the line of figures holding their captives by the hair on some of the altars or benches at Chichen and the line of Tezcatlipocas on the Tizoc stone with the figures symbolical of the places captured by the Aztec.

The Humboldt stone at Berlin is a sun disk or "calendar stone" with a Toltec warrior in the center of the circle (fig. 605). He wears a nose bead and an ear ornament, and carries an *atlatl* and darts. He even has a bird in front of his headdress. This design is not unlike others at Chichen, such as those on the Temple of the Jaguars lintel.

The Stuttgart stone figure has on its back a sun disk with only four rays, but with a center figure not unlike that on the Humboldt stone. The *atlatl* takes the form of a serpent.[44]

Another unexplainable parallel is found in the sequence of ball court, skull rack, *quauhxicalli,* and temple seen at Tenochtitlan and at Chichen.

TOLTEC FIGURES IN OTHER PLACES. *Malinalco.* The fresco with the remains of three military figures has been mentioned in connection with the Jaguar-Eagle cult and its prominence in Aztec times. The painting was found in Temple III, part of which is a circular chamber. Each figure is equipped with *atlatl,* dart, and round shield. All three are marching over a band of jaguar skins and feathers. The back device they wear is circular and "decorated with a sun motif, from which fall large green plumes and, on the front, they wear an ornament similar to the butterfly which appears on the breast of the Tula caryatids." The third figure seems to have a rope attached to one of his legs [45] (Marquina, 1951, pp. 212–13).

Los Sacrificios. A polychrome vase (fig. 606), pear-shaped with annular base, was found here in a grave by Du Solier (1943, pp. 69, 78). It shows two warriors who seem to be Toltec. "Each carries a sheaf of darts in the left hand, a copal or tobacco pouch in the other. Furthermore, the headdress is a serpent's head, the body of which circles the vase." The figures wear the typical Toltec puff at knee and ankle. Du Solier considers that the figures correspond to those of the Chichen warriors, "showing that the final period of Isla de Sacrificios is contemporaneous with that of the Warriors at Chichen Itza." His first period here he places in the Tula-Mayapan complex. This bisection of the site gives weight to the separation between Chichen II and III, as advanced here. The author considers the figure on the base as Tlauizcalpantecutli.

In some cases, only the head of a god with tubular nose bead lies within the jaw of the animal. A good example of this is shown by Nuttall (1910, pl. 13) from Los Sacrificios.

Mexican warrior on Plumbate ware. There are comparatively few common types of Effigy Plumbate. Among these are birds and animals, heads of Death and of Tlaloc, full figures of the god Xipe, all generally attached to a cylindrical vessel. Another well-recognized type is a warrior standing in front of a vase. His face is in the jaws of an animal used as a kind of helmet. Usually wearing a beard, he carries a feather-decorated spear and a round shield, also adorned with feathers.

As the Plumbate wares are definitely associated with the Toltec expansion, this individual would seem to belong to this group (Shepard, 1952).

Batres (1906, pl. 2) shows one of these vessels with a warrior and another with Xipe, both from a private collection at Teotihuacan. As the lot also contained two calcite jars, there is no indication that they belong to the period of the ruins here.[46]

Another example of the warrior is from Alta Verapaz, Period III, Chipal 2, in the Birkett Collection in the University Museum, Philadelphia (Butler, 1940, pl. 9,*d*). Shepard cites three other examples of this personage from Guatemala and one from Chiapas.

Nayarit. To add to the list of warriors, a type from this state and other neighboring ones, usually called Tarascan, should be mentioned although it has few connections with the Mexican warriors already discussed. A common form is a pottery figure, with body protected, who is usually carrying a stick. He has often been called a ball-player. In some cases he wears a kind of hat, often with two prongs, protecting his head, and carries a shield and a short weapon. He is often nude (Toscano, 1946b; Kirchhoff, 1946).

Mixtec Warrior. The great historical figure in the Mixtec manuscripts, 8 Deer, who is associated with the jaguar and whose sign is this animal's claw, appears in the Nuttall Codex (fig. 607) dressed very much like the Toltec warrior. His head is in the jaw of a jaguar. In some pictures he has a Toltec breast ornament and carries *atlatl,* darts, and round shield. He also has a back-shield. In the Nuttall and the Vienna he and other warriors wear a pointed beard with a shaved place, colored red, around the mouth. In Nuttall 68, 8 Deer has the same jaguar helmet and his legs are covered by the skin and feet of a jaguar. He has the same pointed beard. In place of the *atlatl* he carries a pointed spear.

Caso and Bernal (1952, p. 61) show a common form of Monte Alban vase which has the lower leg and claw of a jaguar.

3. "CHICHEN MAYA"

The examination of the Toltec at Chichen showed the chronological horizon to be fairly constant with the contemporaneous periods at Tula and a few other sites. A study of the Maya at Chichen will show the frame of reference to have far wider boundaries both in time and in place. For most of our similarities we turn back to the Late Classic Maya and southward mainly to the sites in the Usumacinta Valley (see Table 24). Naranjo, in the Peten, is also cited frequently. The situation changed completely in the Toltec-Maya periods, Chichen II (A) and III (B). The Maya shown in the bas-reliefs and frescoes are far less common than the Toltec but they can usually be easily identified. Proskouriakoff (1950, p. 170) writes of this type that they are "neither Classic nor Toltec and must be classed as a transitional local form." She calls them "Chichen Itza Maya," and this term has been adopted here.

It will be remembered that in the Yucatan-Maya stage there is a remarkable absence in the Puuc of representations of Maya. Their number does not compare in any way with their generally contemporaneous companions on stelae, altars, and walls in the southern regions. In all of Chichen in its Maya horizon (Chichen I) there is, at present, only one bas-relief available, that on the Akabtzib lintel, to show us how the Maya looked.[47] Along with the sudden appearance of the Toltec in Chichen II and their depiction in bas-relief and in fresco, there is also the first appearance of Maya in many of the same bas-reliefs.

There is a difference between these resemblances at Chichen and in the Late Classic on the one hand, and the later ones found at Chichen and Tula on the other. In the latter we have seen that there are often identities in the whole figure, and almost every feature of every bas-relief at Tula has its parallel at Chichen. With the Late Classic Maya and "Chichen Maya" the correspondence lies not in whole figures but in details of design, of dress, and of weapons. These are pulled out of a Maya background. The typical Maya stela is not found at Chichen. This has usually given way to the column. The grouping such as that on a Maya lintel is also almost entirely absent.

It is difficult to determine the actual date of the contacts with the south that are responsible for the "Chichen Maya." If the special features came as a relic of the Maya of the previous period, why do we find this sudden burst of the graphic art when it was practically lacking in the Yucatan-Maya period at this site and, to a great extent, in contemporaneous sites in the peninsula? It is probably safer to follow Proskouriakoff and call them Chichen II and Chichen III Maya to distinguish them from the typical Maya of the south.

In another place it has been suggested that the life of the Late Classic in the south, especially along the Usumacinta, may have lingered on long after A.D. 900 or 1000, when it was supposed to have ended. There would then be a contemporaneous feature to account for similarities at Chichen both on the bas-relief and on the Cenote gold disks.[48]

DISTRIBUTION. At the beginning of this chapter, the positions occupied by the Maya in the structures of Chichen II (Group A) and III (Group B) have been noted, as well as those on the Cenote disks.

The small atlantean figures in bas-relief which are considered to represent bacabs are all presumably Maya (see Chapter III-7G). They are found both as the upper and as the lower figure on the columns, jambs, and pilasters of the Castillo, on the columns of the Temple of the Chac Mool, and on those of the Temples of the Tables. They appear on the capitals of the serpent columns of the Chac Mool and the Warriors. On the jambs of the latter structure and those of the Northwest Colonnade, large atlanteans form the center element in the bas-relief.

Individuals identified as Maya warriors are common in Group A, whereas Maya priests are far more usual in B (Table 23). The criteria distinguishing Toltec from Maya are absent or vague, particularly with respect to names; speech-scrolls; mutilations for ear, nose, and cheek ornaments; and body painting.

MUTILATION: DEFORMED HEAD. *Classic stage.* A common Maya characteristic, very typical in the Classic period, is the artificial deformation of the frontal bone of the head (fig. 391). Most of the early carvings of human beings, both in the round and in bas-relief, show this practice. The typical Classic Maya has a straightened forehead, a prominent nose, pendulous lower lip, slightly open mouth, and retreating chin. That the custom continued into late times seems certain from the early Spanish references. Landa (1941, p. 88) writes: "They had their heads and foreheads flattened, and this was also intentionally done by their mothers in their childhood." Of the 50 skulls recovered from the Cenote only one shows a marked frontal deformation.[49]

Chichen. The one place at Chichen where the result of this cranial operation is clearly noted is on the Cenote disks. The Maya with this deformity, confronting either Toltec or an eagle, appear on Disks A, B, C, D, F, L, M (fig. 611).

In the numerous bas-reliefs here no Maya with this artificial deformation is noted. There are a few heads on the Temple of the Warriors fresco which seem to show flattening (Morris, 1931, pls. 147,*b,d;* 157,*d;* 159; 160,*d*). The center figure on the altar panel of the Northwest Colonnade (fig. 596) may show a deformed head, but he seems to belong in the Toltec group.

In almost every instance we see far greater variety among the Maya than among the Toltec in types of personages, dress, decoration, accoutrements, and weapons.

"THE TYPICAL MAYA WARRIOR"

As with the Toltec, I gave a fairly complete picture of the militant Maya some years ago. I quote again (1930, p. 160):

> Coming to the lowest row of warriors [in the Lower Jaguars] whom we identify as Maya, the contrast [with the Toltec] is very great indeed. Here the weapons are entirely different, the *atlatl* and spears being replaced by a stone-pointed or barbed spear; three men also carry stone knives as well. Of the twenty-three [extant] figures eleven of them are protected by a thick flexible shield draped over the arm, five have round shields in the hand. All wear leggings. Masks, often mosaic in character, and very elaborate headdresses are common and nose-buttons give way to a long tubular bead through the septum of the nose. Elaborate jade necklaces with pendants also occur. Name signs are associated with most of the figures. . . . If we seek for parallels for the dress and accoutrements of the figures in the lowest rows in the design from purely Maya sculpture and bas-relief we find some very striking confirmations of the thesis that these Chichen figures are Maya. It is interesting to note that these parallels all come from sites far to the south and identified with the First Empire.

The account goes on to identify similar features at Piedras Negras, Yaxchilan, Naranjo, Seibal, and other sites.

DRESS. 1. BODY COVERING. The short tunic fringed or scalloped at the bottom seems to be the most common garment, especially in the Lower Temple of the Jaguars. In some instances the skirt carries a design (fig. 612). Three figures, two of which represent Death, have crossbones on the smock (fig. 613). Over this at the waist is a belt, usually tied with the knot in front and sometimes decorated.

A Maya prisoner on Disk B (fig. 611,*b*) wears an interesting short sleeveless tunic, elaborately decorated, a garment seen also on an upper figure on each of the Codz Poop jambs at Kabah (fig. 603).

On the frescoes showing battle scenes the Maya wear a simple tunic. In the Temple of the Warriors this garment is red and is worn over the body painted in stripes. In the peaceful village scene (fig. 62), in the same structure, the Maya men wear only the breechcloth; the women wear *huipiles* and, in two cases, a skirt and an upper garment.

The dress and accoutrements of Maya priests, those called donors who make offerings, and prisoners may be found from the Index.

2. LOINCLOTH. In Aztec this is called *maxtlatl;* in Maya, *ex.*

Early accounts. "Their clothing," writes Landa (1941, p. 89), "was a band of the width of the hand, which served them for drawers and breeches. They wound it several times round the waist, so that one end fell in front and one end behind, and these ends the women made with a great deal of care and with feather-work." In a *relación* (RY, 2:29) we read: "They wore a *mastil* [*sic*] between their legs, which was a large strip of woven *manta* which, tying it on the abdomen and giving it a turn below, covered their private parts, two long points having on them much plumage hanging before and behind." (See Tozzer, 1941, p. 287, for dress in general.)

Classic stage. In the many representations on stelae and in other places, the breechcloth is more like an apron. It is wide and, as the figures usually face front, the part behind is almost never shown. Proskouriakoff (1950, pp. 70–77) gives many examples of "loincloth aprons." The most elaborate ones (fig. 97) come in the Late Classic. Most of these figures have the mask, the tapelike knot, and the side fret. (See the famous Maya figurine carved in a jaguar bone in Caso, 1938a.)

The long ends of the breechcloth are excellently shown on fragments of a brown cylindrical jar from the Ulua in the Heye Museum (Lothrop, 1936a, fig. 3). On Stela 4 at Sayil, the long ends appear (Proskouriakoff, 1950, fig. 81,*a*). Simpler types are worn by figures from other Yucatan sites.

Chichen. One of the criteria of the Maya in figures in the Mexican periods here is the loincloth with long ends, coming down below the knees and sometimes reaching the ground. They do not show the elaborate design seen on those from the Classic, but several may well have been embroidered "by the women."

Group A structures offer the best examples. The elaborately decorated ends are seen on a figure (fig. 614)[50] at the end of the south wall of the Lower Temple of the Jaguars, and on atlanteans on the four sides of the south column of this temple (fig. 615). On the bas-relief on the walls the back end of the breechcloth is noted on several of the Maya in the lowest row of personages; one of the two gift-bearing Maya wears one with both ends decorated (fig. 627).

The *maxtlatl* with the long ends and the necklace with a shell pendant are often found on the same figure as on the south wall just mentioned. This combination occurs on the small atlantean bacabs (fig. 261) at the top and bottom of columns in several structures in both groups. On the west wall of the North Temple of the Great Ball Court a Maya (fig. 685) with necklace and long ends of a breechcloth stands before an accusing Toltec.

Group B structures also illustrate this feature. In the Temple of the Chac Mool the priests on Columns 5 and 6 show the long loincloth, in most cases plain. On one (fig. 667) the ends are decorated; on another (fig. 666) they show a mosaic-like design painted green (see also Column 37E in the Northwest Colonnade). On the jambs of the Temple of the Warriors and its Colonnade, the main figure is a Maya atlantean with the usual

necklace and *maxtlatl.* The so-called sorcerer is often shown with the apron (fig. 657). Some of the prisoners in the same structure also wear it (fig. 692). A donor here (fig. 100) wears a *maxtlatl* ending in a knot outside the skirt. This is similar to the loincloth apron on Stela 11 at Yaxchilan (Proskouriakoff, 1950, fig. 26,*r*).

In the west portico of the Toltec Annex of the Monjas, which seems to be a very late addition, is a crude figure (fig. 654) with a badly executed loincloth. The same articles of dress are noted on Column 3W of the Northeast Colonnade.

A capstone (fig. 616) recovered from the debris of the North Colonnade shows a beautifully painted Maya who wears a jade necklace and a *maxtlatl* with long ends. The style of the painting is quite different from that of the other frescoes of Group B and seems rather to belong to Group A.

3. HAIRDRESSING. In the Lower Temple of the Jaguars, a Maya (fig. 625) has masses of straight hair hanging down well below the shoulders.[51] This would conceal any ear ornament. The most common arrangement is a short bang showing below the headdress and the hair hanging straight down at the sides. The circular disk and the pendant beads of the ear decoration often appear over the hanging hair, as on the Seibal lintel. A few Toltec have the same arrangement.

On the Cenote disks there is a variety in the dressing of the hair. On Disk A (fig. 611,*e*) the head seems to be shaved except for a line of hair running from front to back. The Maya on Disk L (fig. 611,*h*) wears beads strung on strands of the hair.

Hair seldom appears on figures in Group B structures.

4. BEARDS. *Classic stage.* Among the comparatively few examples of beards on the early stone carvings, we note them on Stela 27 at Yaxchilan, Stela D at Quirigua, and Stela B at Copan, the last with an artificial ornament in addition to the beard (Proskouriakoff, 1950, fig. 19).

The figure on the Jonuta stone from Tabasco wears a sparse beard. A small seated personage on a monument from Honduras shows an excellent one (Pijoan, 1946, p. 419). The Chama vase has figures with hair on the chin; one of the leaders has a pointed beard, common among the Toltec. A vase from Quirigua has a bearded face with the typical low flat nose. Vaillant (1931) shows a bearded figure from Chiapas.

Chichen. The largest number of Maya personages with beards are those on most of the atlantean bacabs found as minor figures on the columns (fig. 261).

In the Lower Temple of the Jaguars the figure at the end of the south wall (fig. 614) has a beard. In the bas-relief behind is a curious gorgon-like figure (E10) with beard. It seems fairly clear that the personage on the south column of this structure (fig. 615) also wears one.

Among all the many main figures in the Northwest Colonnade, only two seem to wear beards (figs. 691, 692). Both men are prisoners and show distinct Maya characteristics.

On the North Colonnade a lower border on one of the drums of a column is composed of small atlantean figures. One of these is bearded; the lotus is also noted. This design is somewhat like that on the border on the north wall of the North Temple.

The back of a "mirror," found at Uayma, Yucatan, shows two figures, one of which has a beard.

The moustache is uncommon at this site. A Maya on Disk L (fig. 611,*h*) seems to have one, however.

Codices. The beard is extremely uncommon in the Maya manuscripts. God D wears one in Dresden 27 and Madrid 71, God B in Madrid 68.

5. HEADDRESS. There is a much greater variety of head decoration among the Maya than among the Toltec. The Indian feathered war bonnet (fig. 612) is the most common in the Lower Temple of the Jaguars. In one case (A19) it hangs down the back, well below the knees.

The heavy, longish, horizontal band from which a mass of feathers rise is seen twice (A21, A22, fig. 625). The first one has a chain of beads across the feathers and hangs down the back, somewhat similar to that worn by donors (VI and VII) on the south bench of the Temple of the Chac Mool.

A band from which is built up a series of superimposed masks, each with a projecting nose, is found on the same bench on at least four figures (I, III–V, fig. 617). A single mask with an upstanding nose ornament is worn as a headcovering by a figure carrying a spear on the Temple of the Warriors fresco (fig. 618).

A definite hat with upturned rim (fig. 658) will be mentioned in connection with the sorcerers. At least one figure on the Caracol stone and another on a drum of a column of Str. 5C18 wear it.

The round-topped hat, usually with feathers above, is worn by several Maya on the Cenote Disks D, G, and M (fig. 619).[52] Three of the Maya figures in the Caracol Annex (fig. 620), two on drums of columns of Str. 6E1, and another on a drum from the North Colonnade (fig. 621) have much the same type of headcovering. There is still another on an interior column in the shrine room of the Temple of the Little Tables (Carnegie Institution of Washington, photo. 52-24-113).

The "American Indian" war bonnet (fig. 612) occurs at least eight times on Maya in the first row in the Lower Temple of the Jaguars.

The Maya on Disk L (fig. 611,*h*) has a curious turban-like headdress, decorated with beads and feathers above. From it protrudes the leg and talon of a bird.

The turban and the headcovering made like a box with a bead ornament on the front, worn by both Maya and Toltec, have been described in Chapter IV-2.

6. MASKS. *Classic stage.* The covering of the face by a mask is comparatively rare in this era. Two excellent examples occur at Copan on Stelae I and D. The latter seems to represent the skin of an animal, with holes cut in the pelt for the eyes and mouth of the individual. On Stela 11 at Yaxchilan a grotesque mask is shown in profile in front of the human face (Proskouriakoff, 1950, fig. 19,*o*). All these date from the Late Classic.

Over the face of the "prince," lately discovered at Palenque, is a remarkable jade mosaic mask (Ruz, 1953).

A birdlike mask covering most of the face except the nose and mouth is mentioned below.

Chichen. Two of the Maya figures in the Lower Temple of the Jaguars (figs. 612, 622) have the face entirely covered by what seems to be a mask of mosaic, not dissimilar to the actual one just described from Palenque.

Another type is the birdlike beaked mask covering the entire face except the nose and mouth, which are outlined by a line of mosaic-like disks. This is seen on at least four figures on the fresco on the south bench of the Temple of the Chac Mool (fig. 660) and in a variation on Columns 5S and 6S of the same temple. A figure on the Northeast Colonnade (fig. 663) may show

the same covering of the face. These individuals have been called Maya warrior-priests.[53]

Masks difficult to describe are seen on Columns 2N, 5W (fig. 665), and 6E in the Temple of the Chac Mool and on Column 3S in the Northeast Colonnade. A line of dots, possibly tattoo marks, runs around the mouth in several instances (fig. 633; Temple of the Chac Mool, Column 6S).

The Tlaloc mask, that of the Death god, and the face in the jaws of an animal or of a bird are considered elsewhere.

7. Mosaic cape or collar. A shoulder covering of beads or mosaic or feathers is commonly found on the Maya. In the Lower Temple of the Jaguars 10 of the 26 Maya have this cape (fig. 633), as do at least eight seated Maya on the fresco of the south bench of the Temple of the Chac Mool, where the green color makes it clear that the mantle was made up of jade pieces.[54] The cape is also noted in the Chac Mool on Maya on Columns 4W-S, 5S, 6E-S. It is also on each of the figures sitting within a sun disk on the three sides of the Jaguars lintel and on a somewhat similar personage in the Lower Temple of the Jaguars (fig. 271). Those on the lintel are definitely Toltec.

The first reason for the suggestion that the ball-players portrayed in the Great Ball Court bench on the side of the one making the sacrifice may be Maya was the fact they all wear this mosaic cape.

8. Breast and neck ornaments. *Early accounts of beads.* Stone beads are mentioned by Landa (1941, pp. 95–96): "With this [money] they were accustomed to buy slaves, or other beads, because they were fine and good, which their chiefs wore as jewels in their feasts; and they had others made of certain red shells for money, and as jewels to adorn their persons. . . ." In another place we read of beads of "fineness and beauty." Cogolludo (4, III) speaks of red shells, "which they import and which they string together like the beads of a rosary."

Archæological specimens. Hundreds of beads, of round, tubular and other forms and of many sizes, were recovered from the Cenote. Many are jade; some are obsidian and shell. These and the many carved pendants from this source undoubtedly were once part of necklaces. Beads also serve as decoration on ceremonial shields and are sometimes strung on the feathers of a headdress.

On an unusually large tubular bead recovered from the Cenote is incised a figure (fig. 623) with deformed frontal who wears an elaborate necklace composed, first of all, of a similar large bead. Attached to either end are a circular one and three smaller, tubular beads, each with a smaller one at the end. Holes in the actual bead show, as seen in the drawing, that there was a fringe of beads hanging from it. By the use of beads from the Cenote collection a neck ornament somewhat similar to that incised on the bead itself is shown in figure 624.

Classic stage. Bead necklaces are very commonly worn by Maya figures in the bas-reliefs and in the round, throughout the southern and central areas. Many of the façade figures at Copan, for example, are often shown with them. It is usually possible to duplicate these necklaces in actual jade.

Proskouriakoff (1950, pp. 64–67, fig. 22) names, illustrates, and gives the distribution of three types of ornaments hanging from a necklace or fastened to the collar: the mat made up of plaited strands, the bar, and the medallion. We are concerned with these early examples of neck decoration primarily because of their resemblance to those which appear on the personages at this site.

The plaited variety of neck ornament has been considered in Chapter III-6.

The long necklace with medallion at the end and reaching well below the knees, together with the bar bead, is perhaps the most interesting on account of its close association with the past. Proskouriakoff (1950, p. 123), in discussing the long necklace with a bar ornament, most characteristic at Coba, mentions a similar decoration on Stelae 1 and 2 at Tikal, and on the altar associated with Stela 26 at Uaxactun. Morley places the two lintels at Tikal "very early in Cycle 9," which begins in 435, and Stela 26 has the date of 9.0.10.0.0 (445). At Etzna the necklace appears first about 9.9.0.0.0 (613). It is also found at Oxkintok, Santa Rosa Xtampak, Xcalumkin, Kanki, and at Uxmal on Stelae 2 and 3.

Chichen. There are relatively few examples of elaborate necklaces with medallions and beads worn by the Maya here. This decoration, however, occurs on three Maya figures in the Lower Temple of the Jaguars. The first (fig. 625) carries a trellis type of spear handle which is found in the south. The other two examples (figs. 626, 627) are worn by important Maya personages bearing gifts.[55] The decoration occurs on a Maya on the west jamb of the North Temple.

A longish necklace with pendant should also be noted on a Maya on Column 3W in the Northeast Colonnade; another, with both necklace and pectoral of jade (fig. 616), appears on the beautifully painted capstone from the North Colonnade.

The simplest compound necklace of the bar type (fig. 661,*b*) is that worn by a Maya prisoner on Disk B from the Cenote. To each end of the large tubular bead is added one of cuplike shape, within which is a round bead. On Disk C a Toltec wears the same ornament.[56] Another form is worn by a Maya (fig. 628) in the Lower Temple of the Jaguars. Below is a plaited type of ornament.

The type where tubular beads are suspended from the center one, as in the Cenote specimen, is noted in the Lower Jaguars (fig. 629). Figures B11 and E6, both Toltec, show this form.[57]

A modification of this form is noted on a standing Maya on Disk B (fig. 611,*d*) where two smaller bar beads hang horizontally, at some distance below each other, from the large tubular bead.

On the Jaguars altar, two Toltec atlanteans (8 and 9) show horizontal beads suspended from the main one (Seler, vol. 5, pls. 17, 18).

In the Lower Temple of the Jaguars four Maya and the Tlaloc figure wear a circular disk with plain rim. Two of these appear over the mosaic collar. It is possible that they represent the plain metal plaques similar to those recovered from the Cenote.[58]

The plain disk with one or two bosses has already been described in the Toltec section. Three of the four figures on Column 8 in the Northwest Colonnade, all Maya warrior-priests, wear it, as do three Maya prisoners in the same structure (fig. 630). In the Northeast Colonnade a Maya with a battle-axe has this pendant (fig. 651).

9. Back decoration. An elaborate device worn on the back of several Maya figures is noted especially on the gold disks. There seems to be a basket-like foundation into which feathers were inserted. The basic design on Disks L and M (fig. 619) is

usually a stepped meander or fret.[59] The same panache of feathers on the back and the same pattern or others very much like it are worn by the seated figures IV, VI–VIII (fig. 660) on the south bench of the Temple of the Chac Mool.

The device with feathers and a plain fret appear on the Temple of the Warriors fresco (Morris, 1931, pl. 154,*e*) with other objects considered to be tribute.

The figures on three sides of the south column in Str. 2C3 seem to be Maya. The individual on the north face (fig. 631) wears the feather panache coming from the usual frame decorated with stepped frets. The figures on the four sides of the north column seem to be Toltec (Carnegie Institution of Washington, photos. 53-24-684–90).

The back frame with the feathers but without the fret design is carried by a Maya on Disks C, D, F, and J. It seems also to be found with the severed head resting in a dish on Disk B.

On the designs on the panels in the Great Ball Court the panache of feathers, with a bead near the end of each, is worn by those ball-players who also have the cape. They have been identified as Maya.[60] Plumes worn by at least one of the Maya on the fresco on the south bench of the Temple of the Chac Mool have the beads.[61]

In the Lower Temple of the Jaguars two figures, seemingly Toltec, have beads strung in their hair (figs. 541, 542).

The panache on the back is noted on the crude figure (fig. 654) on a jamb in the south portico of the Toltec Annex of the Monjas in addition to the crossed gaiter described below.

10. Wristlet and anklet. These decorations seem to be much alike on most of the Maya in the Lower Temple of the Jaguars. They consist of a cuff (fig. 628) composed of a center strip with a ruffle above and below. Another common type of wrist and ankle decoration is cufflike crossed lines running between two side pieces (Proskouriakoff, 1950, fig. 27,*d'*).[62]

The ankle guard is seen on Disk D. In many cases the "puff" at the instep, seen on the Toltec, also appears here, but it is usually a more elaborate affair with beads and sometimes with fringe or tassel (fig. 553,*g,l*).

11. Garter. The single and double strand of beads is the most common form of knee decoration. Among the Maya, it is found in the Northeast Colonnade and on prisoners, sorcerers, and warrior-priests in Group B structures.

The Maya on several of the Cenote disks wear what seem to be one or two tubular beads on a string with the tie showing at the knee. On Disk C there is a garter with a single bead on it. The same variety occurs on the south column of the Lower Temple of the Jaguars (fig. 615).

There is a type of garter, sometimes also found as an anklet (Column 32E, Northwest Colonnade), composed of tapelike bands with ends hanging down in front. This is the kind often worn by the "anomalous" Toltec and by figures at Tula, as well as by Maya prisoners (Column 25S, Northwest Colonnade). A slightly different form gives the effect of a bowknot (Proskouriakoff, 1950, fig. 28,*f, g*).

12. Gaiter. The puttee leg covering with a ropelike effect running up and down at the front with a tie at the top is the most usual type of gaiter worn by the Chichen Maya. It is found on the Northeast Colonnade (fig. 632) and is especially common on most of the figures on the Lower Temple of the Jaguars (fig. 633). The gaiter may have one or two strings of beads around the top (Northeast Colonnade, Column 1W [fig. 663]; Northwest Colonnade, Columns 40N, 56E-N-S; Temple of the Chac Mool, Column 6N) or a fringe. In a few instances, the strands are painted in alternating colors (Temple of the Warriors, Column 10E; Northwest Colonnade, Columns 52W-S); sometimes the garter is made up of tubular and circular beads. Leggings are found on Maya on jamb and column of the Xtoloc Temple (see also the figures on the Halakal lintel).[63]

The crossed gaiter (fig. 654) is relatively uncommon. In the Lower Temple of the Jaguars (A2) it seems to have been made of rope.[64]

Two figures on the Caracol stone (fig. 686), identified as Maya, wear the crossed gaiter. Several of the figures on the Xtoloc Temple columns wear leg coverings.

13. Sandal. The sole is usually tied on at the instep (fig. 553), the knot being either elaborate or (usually) covered by the cuff or puff at the ankle. There is seldom any heel protection at the ankle. The most elaborate foot covering is in the Lower Temple of the Jaguars (fig. 195).[65]

Defensive weapons. *Rectangular shield.* This most common type of Maya buckler is oblong, with a framelike border and a center usually decorated with parallel lines. Nearly always it is fringed, possibly with leather, on all edges, the sides usually differing from the bottom and the part hanging over the top. In the Lower Temple of the Jaguars this type occurs seven times. It is also carried by Maya on the north wall of the fresco in the upper temple.

In a few cases the center of these shields has an elaborate design. In the Lower Jaguars (fig. 633) there are two trophy-like heads, somewhat similar to those on a breastplate on a stone carving found on the road to Piste (Seler, vol. 5, fig. 265).[66]

In the Northeast Colonnade eight of the 16 Maya carry the rectangular shield (fig. 632), as does one in the Temple of the Chac Mool (fig. 666) and another in the Xtoloc Temple (Ruppert, 1952, fig. 136,*d*). This type of shield is noted on the north bench of the Chac Mool fresco where three of the seated figures are making offerings. They are associated in this painting with the warrior-priests, who are described in the next section.[67]

Flexible shield. Another type of protection, of the same shape and decoration, seems to be draped over the hand of the warrior, although it is possible that this is a method of showing the shield from the side.[68] In the Lower Jaguars it occurs five times.

There is often an association between the two types of shield and two types of offensive weapon, the spear and the harpoon. In the Lower Jaguars, four of the seven individuals carrying the stiff shield have a stone-pointed spear with feather decoration; three of the five carrying the flexible shield have a harpoon-like spear. One figure (fig. 636) carries a draped shield and a pointed wooden staff.

The draped shield seems to be present on the Xtoloc Temple columns (Ruppert, 1952, fig. 136,*a*).

Round shield. The rectangular shield is limited to Maya, but the circular shield is carried by both Maya and Toltec.

In the Lower Jaguars there is the most varied assortment of shields. There are six, possibly seven, warriors carrying the circular kind. The most interesting one (fig. 613) shows in the center a grotesque face surrounded by fringe. This represents Death, and the figure carrying it is also Death [69] (see also figs. 637, 638).

The presumably Maya defenders of the village in the Temple of the Warriors fresco carry a kind of daisy-petalled type of

shield with a red center and some textile hanging at one side and below [70] (Morris, 1931, pl. 139). In the Temple of the Warriors a figure (fig. 639) carries a partially draped shield.[71] Possibly the name "10 Rabbit" is at the top. The warrior in the Northwest Colonnade (fig. 640), with a serpent and with an excellent speech-scroll, shows the method of carrying the shield. In his right hand is a short dagger-like weapon.

On the south bench of the Temple of the Chac Mool (Morris, 1931, pl. 133, IV) is a seated Maya whom we are calling a warrior-priest. In every respect, except for the round shape of his shield, he is similar to the figure seated in front of him (fig. 660). Much the same sort of round shield is noted in the Xtoloc Temple (Ruppert, 1952, fig. 136,*c*).

The circular shield is seen twice on the same column in the Temple of the Warriors (fig. 641). The center, composed of cross lines, is surrounded by disks; a bottom design consists of a series of tubular beads, each with an end bead. The figures may well be Maya; one carries on the end of a stick an ornament decorated in much the same way as the shield.

On the fresco of the south bench of the Temple of the Chac Mool two seated Maya warrior-priests (fig. 660) each carry a pear-shaped shield similar to one carried by the priest on a column of the same temple (fig. 665). This shield consists of a human face, wearing a jade nose bead, surrounded by a red border. Next comes a scalloped edge and, finally, green tubular beads distributed around the face; others, closely placed, are suspended from the bottom of the shield.

The entire absence of Mexican types of shield here among the Maya is worth noting.

Offensive Weapons. *Late use of bow and arrow.* There are many early Spanish accounts of the use of weapons of attack by the Maya. Landa (1941, p. 35) writes of the bow and arrow: "And the Yucatecans, finding themselves in this situation [intrusion of Mexicans], learned from the Mexicans the use of arms, and they soon became masters of the bow and arrow, the lance and the axe, their shields and [strong cuirasses made of quilted cotton]." The Aztecs called this *ichcauipilli*.

It was suggested earlier that the bow and arrow were introduced by the Itzas well after 1200. The significant point is that, throughout the Great period and to the end of the Tula-Toltec period in all the Chichen bas-reliefs and frescoes, warriors and battle scenes show no use of the bow and arrow.[72] The so-called arrow sacrifice is described in Chapter VI-4.

Scholes and Roys (1948, p. 191), from an episode given in the *relación* of the Acalan-Tixchel Maya, write, "In token of their submission the Indians handed over their bows and arrows, lances, shields, and other weapons." Again (p. 402), "Some of them shot with arrows, some of them used spears. . . ."

Spear. The main Maya weapons of this type are stone-pointed (fig. 642), usually with a bead or ball at the base of the point and a bunch of feathers below. As with the rectangular shield, the two places where this is common are on figures in the bottom row of the Lower Temple of the Jaguars, seven examples (fig. 643), and on the four columns of the Northeast Colonnade, eight examples (figs. 612, 613, 633).[73]

The spear carried by A18 (fig. 643) and possibly by A17 in the Temple of the Jaguars has, below the stone point, what seems to be sawlike projections on either side, followed by the usual round ball or bead, and the feathers.[74] A figure (fig. 644) associated with a fish carries a battle-axe in his right hand and a spear, with a banner-like hanging, in his left.

The stone-pointed spear with an openwork or trellis-like handle is seen in the Lower Jaguars (fig. 625), and twice on the north vault of the North Temple of the Great Ball Court (Marquina, 1951, photo. 441, F, G). The same type is noted on Disk D. In the Northeast Colonnade, one figure (fig. 645) has a spear or a staff with an elaborate carved handle.[75]

The Maya leader in the Lower Temple of the Jaguars (fig. 626), with flowered speech-scroll and offering, carries a bag and a staff. Near one end of this is a receptacle into which a stone point is inserted. The second in command (fig. 627) has a serpent staff, which will be considered with similar ones borne by the sorcerers. The simple wooden-pointed shaft is carried by a personage in the Lower Jaguars (fig. 636) and in the Northeast Colonnade (Column 3E).

The most common form of weapon in the Lower Jaguars, seen eight or nine times (figs. 646, 647), is the harpoon-like wooden spear with points on one or both sides. It is not noted anywhere else at Chichen.[76]

In the Northwest Colonnade a short spear is seen with a round shield (fig. 640),[77] a dagger with a plain shield (fig. 648). Both are carried by Maya.

Stone knife.[78] The worked flint, with or without a handle, is found in archæological deposits. There is a famous knife in the British Museum with a mosaic-incrusted handle; in Rome are two other similar wooden specimens which may be handles (Saville, 1922, pls. 38, 39). A sacrificial knife with wooden handle composed of two intertwined serpents was recovered from the Cenote.

Three of the Maya in the Lower Jaguars carry stone knives. Two of them (figs. 622, 647) also have the harpoon-like weapon; one, in addition, has a shield in the same hand as the spear. In the Temple of the Chac Mool (fig. 649) a Maya carries a stone knife as his only weapon. On the same column are three skirted figures, each offering something in a bowl, whom we have called donor-priests. On a jamb of the Caracol Annex are three Maya with flat-rimmed hats. At least two carry what appears to be a stone knife.

The same weapon is wielded by Toltec performing human sacrifice.

Club. A wooden club carrying at the end one or more stone or obsidian points is called *macuahuitl* by the Aztec. An imitation, all in wood, was recovered from the Cenote.

In the Lower Jaguars (fig. 650) two warriors carry a *macuahuitl* with two double blades and the end of the weapon rounded or decorated.[79] One of these figures carries a spear and the other a shield. In the Northeast Colonnade (fig. 651) one warrior carries a *macuahuitl* and a spear; a second has the club, a shield, and the spear. A somewhat similar club is borne by a priest-like figure on Column 6E in the Temple of the Chac Mool. In the Temple of the Warriors the figure (fig. 652) presents a problem, for his knee rolls are clearly Toltec but otherwise he has Maya characteristics, including the shield and the club and the snakes coming from his mouth. Furthermore, there is a Maya on the three other faces of the column.

A single flint-bladed club is carried by an "anomalous" Toltec in the Northwest Colonnade (fig. 559). A clublike weapon is in the hand of the Toltec on Column 6N in the Temple of the Warriors.[80]

Ceremonial club. An elaborate club with one to four pairs of projecting stone points, decorated with feathers on both ends and carried usually by the same personage called a warrior-priest, will be taken up later.

Atlatl. This is the most typical Toltec weapon, but it is sometimes carried by personages who are definitely Maya, although in almost every instance the form differs from the Toltec variety.

Two of the Maya figures in the Lower Jaguars (figs. 637, 638) carry an unusual type of throwing-stick in addition to the spear-harpoon and the circular shield.[81] In the attack on the village (Morris, 1931, pl. 139), one of those presumed to be Maya seems to be using an *atlatl*. Most of the villagers are wielding the curved stick of the Toltec which may have been a substitute for the throwing-stick.

Bag, olla. This type of object, "a richly decorated bag of standard design," is seen in Classic times but is not found at Chichen (Proskouriakoff, 1950, fig. 33). The bags carried by Toltec on the columns of the South Temple may be the exception.

In the Lower Jaguars the first of the two Maya leaders (fig. 626) carries a bag with handle, far less elaborate than the one held by the Toltec opposite.

The Maya sorcerer often has some sort of bag or olla (fig. 655). The figure on Column 4E of the Northwest Colonnade, presumably Maya, has a long-handled bag almost exactly like that carried by a Toltec in the Lower Jaguars (B11). An olla stands over a burning fire in the peaceful Maya village (fig. 62). A curious type of bag with three or four pronglike projections at the bottom is carried by a Maya along with his spear in the Lower Jaguars (fig. 646).[82]

Fan.[83] *Chichen.* It is usually difficult to distinguish fans from rattles. Two Maya priests carry these objects on Columns 6S and 6W (fig. 667) in the Temple of the Chac Mool and two on Columns 1W and 3N (fig. 668) in the High Priest's Grave. The second figures in both structures show surprising similarities, a fact which strengthens the connection between the Chac Mool and High Priest's Grave, as well as their relationship to Group B′.

Standard: flag. Stones in the form of standing or sitting human or animal figures that probably served to support standards at the top of stairways were considered in Chapter III-4. Plain stones with a depression to hold a pole seem, in general, to belong to the Mexican side of the story.

There is a flag or canopy which may have been associated with human sacrifice (Chapter III-8). Another type of flag is seen on the Temple of the Jaguars fresco (Seler, 5:209) and also on the west jamb in the Toltec Annex of the Monjas (fig. 654). The figure carrying the latter flag is clearly a Maya because of the long ends of his breechcloth and his crossed leggings.[84]

Maya priesthood. *Landa's priest.* In his account of the baptism rite, Landa (1941, p. 105) describes the dress of the priests:

> He came forth clothed in a jacket of red feathers, embroidered with other colored feathers, and from the ends of it hung other long feathers, and he wore a sort of *coroza* on his head of the same feathers; and under the jacket many cotton ribbons hanging down to the ground like tails. And in his hand he carried an *aspergillum*, made of a short stick finely worked, and for the hairs or bristles of the hyssop there were certain tails of serpents which are like rattlesnakes.

It is interesting to note that several features of the priest's costume mentioned above are found in the codices, but seldom on the bas-reliefs.

Landa's "jacket of (red) feathers" may well find a parallel in some of the figures on the columns in this group. The feather shawl is shown on a Toltec on Column 5N in the Northwest Colonnade and, curiously enough, on several of the Maya prisoners in the same structure (Columns 25, 26S, 32E, 37N-W-S).[85]

Priesthood at Chichen. Apart from the seemingly Maya military personages in the Lower Temple of the Jaguars, there are several other Maya types which, almost without exception, are found only in Chichen III. There is the figure who has been called a sorcerer and another who makes offerings in the temple, called a donor. There is little difficulty in deciding that these are priests, but there may be a question about including a few of the others in this category. Some of these so-called clergy do carry arms and we have therefore called them warrior-priests, but they are not seen in actual conflict.

Table 23 shows the distribution of the so-called priests in Chichen III structures. The same problem occurs here in naming a person priest-with-spear when, in the Lower Temple of the Jaguars, he has been called a Maya warrior. Later, it will be pointed out that the former personage appears only in the Temple of the Chac Mool and the Northeast Colonnade where no Toltec is found, a matter possibly of significance. An explanation is offered as to why these "priests" seem to be found only after A.D. 1150, the end presumably of Chichen II: this was the first stage when the Toltec held sway; after this, for a time, the Maya seem to have occupied the first position in the city.

Sorcerer. Perhaps the figure of the greatest interest in this group has been called by Charlot (in Morris, 1931, p. 307) the "sorcerer" (fig. 655). There seems no good reason to change this designation although it is based purely on supposition.[86] The usual representation is that of a wrinkled old man with sunken jaw and a sharp chin, sometimes with a beard. Often he wears a nose bead, and a round pointed hat with upturned brim and decorated with feathers. He usually has leggings or bead garters. Almost invariably he carries a straight or undulating staff ending in a serpent head. He also has a bag or bowl of some sort. These personages usually have a name sign, but speech is indicated very rarely. They very often occur on the same column with three warrior-priests.

Unlike the donor type, discussed presently, the representations of this priest are scattered. In the Temple of the Chac Mool there is only one (fig. 656), located in the shrine room. In the Temple of the Warriors the sorcerer is the figure on one of the center columns in the outer room (10S) and, possibly, he is all four figures on Column 19, at the south end of the inner room. The ones on Columns 10S and 19N may wear beards. In the frescoes in this temple, partial figures indicate the sorcerer. The first (Morris, 1931, pl. 170,*c*), showing a jar and the tail of a serpent, is located in the outer room, on the ceiling near the picture of the human sacrifice. The other three (*ibid.*, pl. 155,*b, c, d*) are part of a procession of important personages adorning the west wall of the shrine room.

In the Northwest Colonnade possibly three of the four figures on Column 4 (S [fig. 657], W, E) and on one face of Column 8 (E) are sorcerers. These pillars are side by side on the north end of the first row. This personage is also figured on a group of

columns in the south part of this peristyle: 48N-W, 51N, 52E. In the last, the body is painted with horizontal red stripes, the same type of decoration seen on a fresco figure from the Temple of the Warriors (Morris, 1931, pl. 155,*b*).

In the Northeast Colonnade (fig. 658) there is one personage of this type. In the North Colonnade the only Maya on the 13 square columns are on Column 8, in the center. On one side there is a sorcerer carrying his serpent wand (Carnegie Institution of Washington, photos. 53-24-732–35).

Not included above is the only definitely female figure (fig. 579) in any of the bas-reliefs of the Warriors galaxy. She may be a sorceress, as she is old and carries a staff and a handled olla.

There is a direct connection between these sorcerers and the donors, skirted figures who are making offerings. A sorcerer-donor has been noted in the Temple of the Chac Mool (fig. 656). Here is the old man with his serpent staff, spotted skirt, and a bowl containing various gifts. This figure closely resembles the seated figure (VII) on the south bench of the same temple.

The figure on the Northwest Colonnade (fig. 659) wears a feathered skirt, carries a serpent staff, and is making an offering. He has a nose pendant and a back-shield. He may be a Toltec, as are the other three personages on the same column.

There are two individuals (figs. 626, 627) in the Lower Temple of the Jaguars who have been mentioned several times. They are clearly Maya and may represent sorcerer-donors. Each offers what seem to be bunches of feathers to the central idol. One carries a bag; the other shows aged features and has an undulating serpent in his left hand.[87]

Warrior-priest. In the Temple of the Chac Mool, on either side of an altar, is a bench with frescoes. The one on the north has Toltec warriors; that on the south, a line of seated Maya priests. The first three are making offerings. Behind them are five other figures (I–V) (fig. 660).[88] Charlot calls them "god impersonators" or "dignitaries." The three illustrated by him (in Morris, 1931)—III–V, also I, II—and figures X–XIV, which may also belong here, are each on a seat covered with a jaguar skin.

They wear a birdlike beaked mask covering all the face except the nose and mouth, which are outlined by a mosaic-like line. The headdress is of superimposed masks; the mosaic shoulder cape is similar to that on the personages seated in front of them. A serpent issues from their mouth (see Dresden 49b, a Toltec). They carry an elaborate battle-axe seemingly with two flint points extending through the implement and with ribboned decorations at the top. Sometimes there is a serpent at the lower end.[89] One carries a circular shield and two have one shaped like a gourd, with a human face, a nose bead, and decorations of jade beads. The figure shown here has the panache of feathers and the typical stepped-fret decoration at his back.

In Column 6E of this temple is another example of the warrior-priest.

With regard to these figures in the Temple of the Warriors group, several observations may be made. They are all Maya, and many of them carry the rectangular feather-fringed shield. A common form of ear decoration is the disk and projecting bead.

There seems to be a close connection between this type of Maya priest and the so-called sorcerer. On the Temple of the Warriors, Column 10, and the Northwest Colonnade, Columns 8 and 52, three of the figures on each of the columns are warrior-priests with the ceremonial axe; the fourth, in each case, is a sorcerer. In two places (Temple of the Warriors, Columns 10N-W) a serpent issues from the mouth, as in the bench figures. All four faces of Column 56 of the Northwest Colonnade show this priest (figs. 661, 662). Both figures illustrated carry the feather-decorated shield. The axe, however, differs in the two places. In the Northeast Colonnade (fig. 663) the figure has no shield but wears a panache of feathers on his back; the long ends of the breechcloth are indicated. All three have the Maya gaiters.

On the painted bas-relief of the dais of the Northwest Colonnade (Morris, 1931, pls. 127–28), on the three sides, there are 32 figures, 28 of whom are Toltec; in most cases each has behind him a tortuous serpent. The two first figures on each side (fig. 664) nearest the front corner of the altar are distinctly warrior-priests, each with the typical axe and a shield.

Exactly the same arrangement of Toltec and four Maya priests is found on the dais of the North Colonnade (Morris, 1931, p. 257). It is difficult to explain them in this position.

On the columns of the Xtoloc Temple the same type of individual, identified by the axe, is noted about six times.

Priest-with-spear. There seems to be a second type of military priest equipped with a stone-pointed spear decorated with feathers. He appears almost exclusively in Group B.[90]

Examples of this "priest" all show very elaborate habiliments, and they appear at their best on columns in the shrine room of the Temple of the Chac Mool. All carry a spear with a decorated stone point. On Column 5 there are definitely three, possibly four, examples. Two of them are seen in figures 665 and 666. Both seem to have masked faces and an elaborate breechcloth. The first has the gourdlike shield noted on the figure on a bench of this structure; the second has the usual feather-decorated buckler. On Column 6, in the same room, are two others.

In the Northeast Colonnade is another concentration of these figures, nine in all (fig. 642). They are all Maya and classed as priests not only on account of the important location of the column on which each is found, but also for their association on the same column with other types which seem to be priestly in nature.

It has been pointed out, however, that this so-called priest-with-spear may have no priestly functions whatsoever, but he may have a prototype in the Maya military figures with spears in the lower line of the Lower Temple of the Jaguars. The close chronological association of the Chac Mool and the Northeast Colonnade within Group B″ has already been mentioned, as well as what seems to be a greater affiliation between Group A and this subdivision of Group B than with the Temple of the Warriors and the Northwest and North Colonnades.

Priest of the hunt (?). In his list of personages, Charlot (in Morris, 1931, p. 451, fig. 304) has the "old man with a bone." "This peculiar figure is very rare," he writes. The personages on Columns 5–7 in the inner room of the Chac Mool temple are unusually elaborately dressed Maya, including donors, warrior-priests, priests-with-spear, and, according to Charlot, five "god impersonators" and three "patriarchs." One of the latter is the "man with a bone" (fig. 667). By whatever name these figures are called, they seem to be important priests in the Maya hierarchy. This special figure with what seems to be the femur of some animal suspended from his neck and with another in his hat, may be a priest connected with the hunt.[91] A similar figure seems to be shown on the mutilated fresco (Morris, 1931, pl. 137,*c*) from the south or Maya bench in the same temple.

There is a striking similarity between the columnar figure just described, and that on a pillar in the High Priest's Grave (fig. 668). This is perhaps an example of identities almost unique in the complicated designs other than those of the Toltec warrior. Each has a bone on the breast and a garment or decoration hanging down his back from his hat. Each carries a fan. Less significant are the spear, the long decorated ends of the breechcloth, and the garters, as they are common on many of the Maya. The similarity of the unusual features further strengthens the connection between two of the structures assigned to Group B′. The cape at the back is also noted on a Maya prisoner in the Northwest Colonnade and in the Paris Codex, p. 19a.

In the rites celebrated in the Kan years there were "many offerings of food," reports Landa (1941, p. 141), "and drinks, of flesh and fish; and they divided these offerings among the strangers who were present and they gave the priest the leg of a deer."[92]

In the baptism rite, Landa (p. 105) tells us: "Then the *principal* whom the fathers of the children had chosen for this festival, rose and, armed with a bone, which the priest had given him, he went over to the boys and threatened to strike each one in turn on the forehead with the bone nine times." Herrera (4, X, 14), in describing the same rite, states that the priests anointed the heads of the children "with a certain water which they kept in a bone."

Donor.[93] This word is used here to designate a group of over 20 skirted individuals who are represented as making an offering contained in a shallow vessel (figs. 669, 670). There is a connection between this figure as shown in the four structures under consideration, and the skirted sorcerer (Temple of the Chac Mool, Column 4S; Northwest Colonnade, Column 51N), and also with the seated military priests (I–V) on the south bench of the Chac Mool. All are evidently Maya, with the possible exception of the person on Column 51N of the Northwest Colonnade. Most of them have name signs but the speech-scroll is usually missing.

The hat is either a heavy flat-brimmed one (fig. 671) carrying plumes, or the conical type with upturned brim and feathers, worn by some of the sorcerers.[94] The seated figures of this type carry the oblong, feather-decorated shield.

All wear skirts, unless Column 3S of the Northeast Colonnade is an exception. This garment is usually decorated with spots, possibly representing round or tubular jade beads. Some skirts show a netted effect (fig. 672).

The main groups of Maya donors are located as follows: In the Chac Mool are three on Column 4N-W-S, directly in front of the altar; on the south bench of the same structure are the three seated figures (VI–VIII). In the Northeast Colonnade offerings are made by individuals on Columns 3S and 4E. In the Xtoloc Temple, on each of the two pilasters at the entrance to the shrine room, is a skirted figure with spotted garment. In the Temple of the Warriors the four figures on Column 12 in the south end of the second row seem to be donors, as do three partially destroyed figures on the fresco, all with spotted skirts (Morris, 1931, pls. 142,*e;* 156,*c;* 162,*b*).

Although the typical skirted donor is usually found only in Group B structures, other evidences of the offering of gifts occur in the earlier galaxy.

In the East Building of the South Annex of the Caracol two sculptured jambs were found (Ruppert, 1952, fig. 126,*c*). The figures are skirted; one seems to be a donor. They both wear the typical hat shown on the figures on the south bench of the Temple of the Chac Mool.

In the Lower Temple of the Jaguars (B13, B14) two personages, evidently Maya, are each making an offering, seemingly of great bundles of feathers. A Toltec warrior on the same bas-relief (fig. 578) carries in one hand darts and a jar, and in the other a bowl of some kind of offering. At the end of the south wall of this structure, a tripod dish with a donation rests at the feet of a Maya who shows some resemblance to a sorcerer.

On the north side of the west wall of the Jaguars, there are two rather crude *graffiti* showing persons with bowls of offerings. Finally, an upper figure on the Caracol stone is making a donation.

(1) *Character of the offering.* The objects contained in the vessels vary. The most common gift seems to be two or more bead-shaped objects, each usually issuing from a ball, possibly representing copal (Northwest Colonnade, Columns 39S, 6o N-S; Northeast Colonnade, Columns 3S, 4E). This is similar to that offered by a skirted figure in the Xtoloc Temple, and also on the painted capstone from the Temple of the Owls (fig. 384).[95]

Balls, or possibly cones, of copal are found on the Temple of the Chac Mool, Column 4W-N; Temple of the Warriors, Column 12E-N-W-S; Northwest Colonnade, Column 59N-W-S; on the Temple of the Chac Mool bench; and on an inner jamb of the Xtoloc Temple. The simple bowl is noted on the Northwest Colonnade, Columns 51N, 59E. The sorcerer on the Temple of the Chac Mool, Column 4S, has an assortment of gifts. Two others (Northwest Colonnade, Column 6oE-W) are vague.[96]

Between the human heads that come from the jaws of two serpents meeting on the cornice of a dais, there is often a bowl of offerings. The frieze on the south side of the Northwest Colonnade is shown in figure 673. In the Northeast Colonnade (figs. 113, 674) these bowls appear between some of the figures in the design below the cornice.

(2) *Zatacapayolli.* This is the Aztec name of a design found in Mexico which represents the implements used for letting blood for sacrifice: grass balls and the points of agave leaves. It may well be that some of the examples just noted are in this class of objects.[97] Examples from Tula (figs. 675, 676, 677) seem more nearly to show implements of sacrifice.

Other skirted figures. Besides the donor wearing the skirt dotted with what look like round or oblong jade beads, there is another skirted individual, probably Maya, with tubular nose bead and a circular ear ornament with protruding bead. Most of these figures are recumbent. Some have spotted skirt and, occasionally, the upper garment decorated in the same way. They usually wear a spotted hat with curved top.[98]

So far as now known, the figure wearing this type of skirt and lying on his back generally appears only in the temples connected with the Great Ball Court. In the North Temple, at the base of each column, they occur in pairs; serving as a kind of atlantean, they usually support the body of a serpent in their hands. On the west column (fig. 678) they are shown head to head, each holding a serpent with the conventionalized head at

the feet of the skirted figure. On the east column the feet are together but separated by the head of a curious deerlike serpent.

On the bottom of the back wall of the same building (fig. 679) is a single personage of the same type, with two serpents issuing from his body. The heads of the reptiles are at either end; before each is a minute human being, one of whom is bearded. Each comes from a shell and they suggest the bacabs, whom we have seen as small atlantean figures comprising the minor design on some of the columns.[99]

On the fresco in the inner chamber of the Temple of the Jaguars the same recumbent figure, almost life-size, is over the door (Seler, 5: 355); another is at the bottom of the east wall.[100]

The spotted skirt also appears on an atlantean, the top minor figure (fig. 265) on a column of the Temple of the Big Tables. This and other skirted individuals in the same place may be women, but most of them have been classed as Maya bacabs.

Another type of figure (fig. 196) wears a line of death symbols above a spotted skirt. The type varies on the four sides of the north column in the Lower Temple of the Jaguars. All are atlanteans with a meandering serpent behind. Like the personages on the other column, they seem to be Maya.

4. TOLTEC AND MAYA: SCENES AND ENCOUNTERS AT CHICHEN

Actual historical pictures dating back to pre-Columbian times and showing phases of the capture of a native people by an invading host are practically unique in the New World. Action against enemies is seen at Chichen in stone bas-relief, in fresco, and embossed on gold plaques. It is impossible to state that they represent the first great Toltec invasion which seems to have occurred about the year 1000. It is more probable that these scenes at Chichen depict local engagements that took place at different times, either here or near a body of water which does not seem to have been the ocean but rather a lake.

CHICHEN, GROUP A. We will consider the events depicted here in what seems to be their chronological order.

Gold disks. From the subject matter, the designs on the large gold plaques recovered from the Cenote seem to come first in point of time. In the scenes portrayed in the center of most of the disks, there is nothing but enmity and struggle between Toltec and Maya. That these represent history is evident; but, as shown by Lothrop and already pointed out here, most of the plaques have, in addition, features of a religious nature seemingly far removed from warfare (fig. 680).

Border patterns (figs. 298, 344) include the mask, the scroll or vine with grotesque faces, and the Venus and other signs. Four disks show undecipherable Maya glyphs (discussed by Proskouriakoff in Lothrop, 1952, pp. 33–35).

Above the "action scene" is usually a sky deity (discussed in Chapter III-7G). In most cases, out of the jaws of a grotesque serpent comes a Toltec (figs. 254, 255). Below the central group there is usually an earth monster (fig. 388); on Disk E are two intertwined serpents in this position. If the border is eliminated and a single figure substituted for the "action scene," the usual pattern on most of the columns is duplicated.

The ethnological roster of these Cenote disks is somewhat difficult to determine. According to the count made here, there are 24 Maya and 27 Toltec, not including the severed head of a Maya and the five figures coming from the sky who seem to be Mexicans. Four of these have *atlatls;* the fifth (Disk E) has the Toltec knee puff. The main count includes the two Toltec in bird form, each attacking a Maya on the smaller Disks L and M. On 13 of the plaques there are nine encounters between Maya and Toltec as individuals and two between a Toltec in eagle disguise and a Maya.[101]

Temple of the Jaguars fresco. Besides the enmity depicted on the disks we have actual battle scenes on the walls of the Temple of the Jaguars. On the west wall (fig. 60) a native village is being attacked by a band of Toltec led by chieftains associated with feathered serpents representing the possible new cult of Quetzalcoatl. The "battle of the red hills" appears on the east wall; on the south end of the room there is an attempt to capture the town by means of a series of tall lattice-like towers. On both the east and the west walls, red earth ramparts may be shown.

As on the disks, there are here two examples of human sacrifice (see Chapter III-8 and figs. 392, 394). It is worth repeating one fact which comes out clearly both here and in the Temple of the Warriors fresco: both sacrifice and battle scenes occur in the same painting. Is it possible that wars or raids were made here in Yucatan, as among the Aztec, to provide victims for sacrifice? The victors are practically always Toltec; the victims, Maya.

These scenes of strife might have been considered first in this pictorial history were it not for the fact that below the actual battle are two lines of conquerors, sitting before their own type of house and interviewing the conquered, many of whom express the gesture of defeat. In figure 682 we see a Toltec talking vehemently with a vanquished Maya (see also figs. 396, 397).

North Temple of the Great Ball Court. Next in point of time comes the bas-relief on the walls of this structure. The general theme seems to be a congress composed entirely of Toltec, both warriors and laymen. On the north wall there are almost 50 people. A few may be gods. The first row contains 12 warriors with their weapons and their leader associated with the feathered serpent. Above is a figure in a sun disk. The second line seems to show a conference between the military and the civilian heads, possibly to determine the terms of the peace. All are seated, each class on one side of a standing figure wearing a spotted garment. The third line has varied scenes; the center is occupied by an altar like the one in the Lower Temple of the Jaguars (Marquina, 1951, photo. 439).

There are many minor scenes on the walls, several of which have already been described. On the east end of the north wall (fig. 683), inside a house, a Toltec seems to be interviewing a dejected prisoner. On the west wall a Maya gives the gesture of defeat (fig. 685) before one of his conquerors, who has an unusual bird on his headdress.

Lower Temple of the Jaguars bas-relief. This finest of all stone carvings at Chichen comes last in the series being described. War is over; nothing indicates hostility except the weapons worn by the actors on the two sides. "The bas-relief on the North Temple of the Ball Court continues the story with the meeting between the former enemies to conclude peace and on the Lower Chamber of the Jaguar Temple the actual celebration of the victory with the rite before Quetzalcoatl, the god of the victors" (Tozzer, 1930, p. 164). It now seems as if the enemy, as shown in the North Temple, had no hand in the actual settlement of the peace.

The Maya in this relief are of the greatest importance in the ethnological problem. It is mainly the figures in the lowest line here who form the basis for the discussion of "the Chichen II Maya."

Great Ball Court bench. On its six panels both Maya and Toltec are represented. The design has been described at length in Chapter III-10.[102]

CHICHEN, GROUP B. *Temple of the Chac Mool altars.* The figures in fresco, belonging to Group B′, on the face of the benches in the inner room of this temple have been frequently mentioned. Taken as a group, they are considered here as Toltec and Maya scenes.

As a cornice running along the top of the design there was probably a meandering serpent in fresco (Morris, 1931, pl. 138,*d*) much like a similar snake in bas-relief on the dais of various colonnades and benches.

On the south bench is a line of 14 seated Maya, consisting of warrior-priests and donors. On the north bench they are Toltec warriors, each resting on a jaguar seat.

Temple of the Warriors fresco. Here, in Group B″, warfare and struggle between the two peoples is far from clear. The bas-relief consists almost entirely of the figures on the numerous columns. Actual hostility is shown solely on the Warriors fresco. It can probably be assumed that the scenes here depicted were local encounters at some place situated near a body of water. In the outer room of this temple, to the left of the door to the inner room, is the scene in the Maya village (Morris, 1931, pl. 139) which seems to have two temples. Action is evidently taking place toward the end of a hostile engagement, when the natives are still putting up a defense against the Toltec.[103] Below, the same red-striped villagers, deprived of their clothes, are being led away as captives. That some of them escape by swimming seems clear from the pictures (Morris, 1931, pls. 146–48).

On the corresponding wall on the opposite side of the door to the shrine room is a scene of human sacrifice (fig. 395), paralleled in the Temple of the Jaguars. This religious ceremony after success in war seems to raise the whole scene from a local village strife between two factions to one shared by two opposing groups such as Maya and Toltec.

On the other side of this wall, in the shrine room, is the essentially peaceful seacoast or lakeside village (fig. 62) where the Maya have taken up their old domestic life. But the conquerors are still present; six of them are being conveyed in three canoes propelled by a native.

There is also shown a temple clearly associated with a feathered serpent. It is somewhat difficult to explain the worship of Quetzalcoatl here. In the other village scene, the temples shown might well belong to the Yucatan-Maya period.[104]

The face of the altar or dais, especially in colonnades, often carries lines of figures in bas-relief. These represent encounters of Toltec and Maya but they have been considered earlier under Processions.

Monjas fresco. Another scene of conflict may be seen in a fresco (fig. 684), probably dating from Toltec times, in the Monjas, a Maya building. It shows part of a town with thatched houses, possibly surrounded by a wall decorated with parapet stones. A group seem to be setting it on fire. Below are structures similar to those on the Temple of the Warriors fresco and some seated figures.

Caracol stone. The design on the so-called "altar" (fig. 686), a part of the Caracol complex (Ruppert, 1935), undoubtedly belongs in an account of Toltec-Maya encounters. Above, at the side, is a Mexican with two minor officials behind. There is a conference with a Maya and two subordinates, both of whom register "surrender." A figure seemingly coming from the sky, a plumed serpent, and four birds complete the picture. In the lower group three of the four figures wear the hats with the flat brim. The animal figure in the center suggests some of the creatures in the carvings in the Temple of the Wall Panels.

Cenote jade disks. Finally, we should mention encounters on two jade disks or flat rings from the Cenote. The first (fig. 397) shows human sacrifice; the second (fig. 547) represents two Toltec seated above what seems to be a Maya prisoner. This type of captive, not uncommon at Chichen, will be considered below.

AKABTZIB LINTEL. Both this and the one from the trough of the hacienda are dated by Thompson as 10.3.0.0.0 and 10.2.0.0.0, respectively. Proskouriakoff (1950, p. 170) calls them "Late Yucatan variant (?)" and says, "Both present the same motif of a figure sitting in front of a flaring vessel." Both of these are certainly pre-Toltec. The Akabtzib structure has been mentioned in the discussion of Chichen I.

HALAKAL LINTEL. This comes from a site northeast of Chichen, and is described by Proskouriakoff as "Late Yucatan variant(?)." There are three figures which she calls the "Chichen Itza Maya" type. The Maya features of this bas-relief consist of leggings (not found, however, in Classic Maya), an oblong shield, feather-decorated spears, one with trellis-like handle, and the form of mask worn by two of the personages. "This lintel," writes Proskouriakoff (1950, p. 170), "is neither Classic nor Toltec and must be classed as a transitional local form." It has been given essentially the same date as that of the Akabtzib lintel. She mentions similar types at Oxkintok, Kabah, and Uxmal.

UXMAL. Stela 14 is described in the Toltec section. Most of the other monuments here are "Late Classic," "Late Classic Decadent," or "Late Classic, variant" and do not concern us (Proskouriakoff, 1950, pp. 163–64).

KABAH JAMBS. The Toltec jambs of Str. 2C6 (Codz Poop) have been considered. There is also a lintel here which Proskouriakoff regards as belonging in the "Dynamic Phase," which is the last period in her "Late Classic." Altars and two jambs of Str. 2A3 are "Late Yucatan, variant (?)." They are certainly "Chichen Maya." On the jambs each of the main personages has interlaced leggings and tubular noseplug. There is also a kneeling figure on each of them. One of the latter seems to be surrendering a club with four stone points running through the weapon. The other (fig. 687) holds a kind of club and seems to be expressing surrender with a hand on his shoulder (Stephens, 1843, 1:412; Spinden, 1913, p. 192).

These jambs, showing practically no Toltec characteristics, should probably be regarded as representing an encounter between two Maya in much the same way as between the Toltec on the other set of jambs, the figures of which oppose each other.

OXKINTOK. Stela 9 belongs in the "Late Yucatan, variant" group. The design is in two panels, in one of which there is an encounter between two Maya, one of whom carries a knife. Stela 26, in the Late Classic, shows the dominant figure with the same weapon. This scene is not unlike that on Stela 1 at Morales, dated 9.17.0.0.0 (756). Stela 19 might be included in

this list (Proskouriakoff, 1950, figs. 81,*c,d;* 87,*d;* Andrews, 1943, fig. 26).

This subject might be extended to include encounters such as that on the Chama vase and the "raid" on the Bonampak murals.

Ukum jamb. A Maya figure, on what was probably a jamb from a ruin at Hacienda Ukum, southeast of Tekit, is described and illustrated by Pollock and Stromsvik (1953). The personage has a plumed headdress; his loincloth hangs, characteristically, almost to the ground at the back. There is a line of glyphs running down in front with two rows at the bottom of the design. This figure may be added to the relatively small number of sculptures from the Yucatan-Maya period.

There is some reason to think that this jamb is somewhat like Stela 3 at Oxkintok, which is one of the many examples at this site of Proskouriakoff's "Late Yucatan, variant" (see her fig. 87,*a*).

Gesture of defeat. *Classic stage.* There are many examples of figures, some of which date from Classic times, who show a common way of indicating defeat, resignation, or acquiescence. This is depicted by one hand resting on the shoulder. On Stela 11 at Yaxchilan, for example, three persons apparently bound together kneel before a personage wearing the mask of a god or priest. Each has his right arm at the left shoulder. In this instance the gesture might possibly indicate a demanded adoration.[105]

On Lintel 12 at the same site (fig. 391) the main figure is seemingly a warrior with a second in command. Each carries a spear and probably a shield. The symbol of death and a trophy head decorate the commanding officer. On either side are two kneeling prisoners bound with rope: one shows the gesture of defeat; another seems to be pleading with his captor. All six figures are of the same physical type and are clearly Maya. Each of the four under duress has his name or province indicated on his arm.[106]

On the Chama vase is a meeting between rival factions; one man in each group has his right arm on his left shoulder. At Palenque, presumably slaves are shown with the left arm on the right shoulder. There is an excellent example of the gesture on Altar 2 at Bonampak where two figures make it. They are seated behind a third who is pleading with a personage enthroned on a dais.

Other sites. On one of the jambs from Str. 2A3 at Kabah, a figure showing surrender has just been mentioned. An individual on a jar from Tekax, Yucatan (fig. 688), holds the same position of the arm.

This gesture persisted through Mexican times, as we shall see, and is mentioned by early Spanish authorities. Villagutierre and Cogolludo, in speaking of the later Itza in their southern home in Peten, after they had been conquered by the Spaniards, write that the Itza greeted the Spanish priests, as was their custom, with the right hand over the shoulder as a sign of peace and friendship.[107]

Chichen. This expression of defeat, surrender, or resignation to an unhappy fate is noted in many places at this site. The fact that both Toltec and Maya use the gesture may give some weight to the suggestion advanced in another place that ascendency may have alternated between the two peoples. Both groups will be considered here.

(1) *Group A.* In the Temple of the Jaguars, below the paintings of the first battle scene, are two lines of figures seated before houses with rounded roof, probably a Mexican prototype, and in contrast with the more typical Maya house with thatched roof at the top of the painting. In this line of figures are several groups, the center of each being a Toltec warrior, often associated with a feathered serpent. Around or before these chieftains are the conquered Maya, several of whom are shown with one arm on the shoulder in the gesture of defeat (figs. 396, 682).

In the North Temple of the Great Ball Court, on the west wall, among an extensive group of Toltec, is a single Maya figure with his necklace and long breechcloth. His right arm is on his left shoulder (fig. 685).

On the Caracol stone, in both the upper and the lower design, Maya show "resignation" before the Toltec (fig. 686).

Among the many encounters between Toltec and Maya portrayed on the Cenote disks, there is no clear example of this gesture.

(2) *Group B′.* In the earliest structure in this group, the Temple of the Chac Mool, of the 18 figures on the columns of the outer room and on the two pilasters (all of whom seem to be Toltec,) 13 show the sign of defeat (fig. 576). In the inner room all are Maya and only one shows the hand on the shoulder. With the exception of this single Maya, it is to be expected, according to the theory advanced here, that at the period of the Chac Mool, the Toltec were not in the ascendancy.

(3) *Group B″.* In the Temple of the Warriors eight figures may have the characteristic gesture; all are Toltec (fig. 581). About 16 persons in the Northwest Colonnade carry the *atlatl* on the shoulder, and all of these seem to be Toltec. It is a question if this has the same meaning as the hand on the shoulder. Otherwise this evidence is difficult to understand, especially in the latter case, for in this structure are almost 30 Maya prisoners, each with his hands tied together.[108]

In the Temple of the Wall Panels, which seems to belong to the same group, are two Toltec on a stone cover of a cist. One is associated with a feathered serpent; the other seems to hold his *atlatl* on his left shoulder, possibly as a sign of submission.[109]

Prisoner-slave. *Classic examples.* There is a type of person who is clearly a captive shown at the bottom of some stelae (Yaxchilan, 10, 18, 19; Piedras Negras, 12, 26; Coba), on lintels (Yaxchilan, 12 [fig. 391]; Piedras Negras, 1, 2, 4), on pottery (Uaxactun vase), on the foundation platform of buildings (Palenque, Houses A, B), at Bonampak, and in other places. In a few cases they represent a physical type differing from that of the usual Maya. The prisoner generally wears only a breechcloth; sometimes there is a glyph or design, perhaps tattooed, on his thighs. In several cases, the victims are tied together by ropes. On the Ixkin stela two have their arms tied at the back. Morley and Morley (1938) have made a study of prisoners; see also Ruz (1952) for a newly discovered *Tablero de los Esclavos* at Palenque.

Are these prisoners of war or are they people who have been captured and are destined for sacrifice or for slavery? Except in a few cases, as on the frescoes at Bonampak, warfare of any type seems to be absent so far as its depiction is concerned in the Great period. At the same time, human sacrifice is also very rare. Slavery, on the other hand, was probably always present.[110]

Chichen. As with the sign of resignation, here also a distinction will be made between prisoners on Group A structures and those on Group B.

(1) *Group A.* The prisoner is much less in evidence in this earlier class. In the Temple of the Jaguars fresco the few prisoners are all seemingly Maya. One on the west wall (north section) is bound and blindfolded. In the Lower Jaguars there is no suggestion either of conflict or the result of conflict; all is peaceful.

On the vault of the north wall of the North Temple of the Great Ball Court several figures, evidently Maya, seem to have been subjected by the Toltec. In one case a Toltec leads a Maya by the wrist, in another a Maya surrenders to a Toltec.

On one of the wooden lintels of the Castillo a line of seated Toltec seem to be tied together with a rope. This is among the very few examples showing a Toltec as a prisoner.

On Disk B from the Sacred Cenote a seated Maya has his wrists tied together at the back;[111] another, standing behind, has his elbows tied. A prisoner is kneeling before a Toltec on Disk C. The victim awaiting sacrifice on Disk H has his upper arms tied.

The supremacy of the Toltec is noted on a flat jade ring from the Cenote. Two figures (fig. 547) with the Toltec breast ornaments and the curved weapons are seemingly guarding a prisoner with his arms tied at the back. His hair is cut similar to that of a Maya on Disk A.

(2) *Group B′.* Although there are several Toltec in the Temple of the Chac Mool who express the sign of defeat, there seem to be none represented as prisoners. There is, however, a Maya in captivity on one of the back columns in the High Priest's Grave, a structure which belongs in this group.

(3) *Group B″.* It is in the later structures of Chichen III, in the Warriors galaxy, that the largest number of prisoners is found. Nearly all of them are Maya.

In the Northwest Colonnade there are 32 figures on the eight columns, in two rows of four (25–26, 28–29, 32–33, 36–37), directly in front of the stairway leading up to the Temple of the Warriors. All except one have their wrists tied together. The exception is a Toltec warrior or guard (Column 32W), in the front row, facing out and equipped with *atlatl,* darts, backshield, and shield. Of the prisoners, all but two seem to be Maya (figs. 689, 690). Here the exceptions are Column 25E, clearly a Mexican with the bird on the headdress and the typical leg ornaments, and Column 37N, who may, after all, be a Maya in spite of the conventionalized bird as a breast ornament.

Almost all these bound men seem to have a name glyph; about half have speech-scrolls. This design is relatively rare among the Maya figures in this group of structures.

About half the captives show the nose bead, nine the pendant, and one the bead and pendant. The Toltec guard shows the pendant and the nose button. Most of the figures wear the circular ear decoration with the long bead coming from it. Four (as in Column 37W) show a thick ornament inserted in the lobe of the ear. Three (Columns 32S, 33S, 37E) wear the long decorated *maxtlatl.* The first of these (fig. 691) has a winglike dress; his bearded face shows a similarity to a figure on a Chama vase (Dieseldorff, 1926, pl. 22). The second figure (fig. 692), also bearded, wears an unusual type of cape which resembles that worn by a few others. He also has the necklace with the perforated shell pendant which we have seen worn by the Maya bacabs. The third prisoner wears the breast ornament with bosses similar to those worn by others already mentioned (fig. 630).

In the famous attack on a village in the Temple of the Warriors fresco (Morris, 1931, pl. 139), each of six extant nude figures, with bodies covered with horizontal red stripes, is led by a rope carried by a Toltec warrior bearing curved stick, darts, and shield. His body is painted black. Four of the Maya wear the large ear ornament which necessitates considerable mutilation.[112]

In the Mercado, on the three sides of each of the two pilasters leading into the patio, there is a male nude who may or may not represent a captive. In general, these figures seem to be Toltec (fig. 188). To the left of the entrance of the patio is a dais whose three faces are carved in bas-relief. In the center of the front or north side are two recumbent figures with another above. Running east and west from this center group are two lines of prisoners, each group roped together with a guard in front (fig. 598). The one to the east has seven captives; that to the west, eight. Speech is shown before the leaders and a few others. The prisoners usually have name signs.

It is difficult to place all the personages. The center figure with his face in the jaws of a bird and with the *atlatl* and darts in connection with a feathered serpent is, of course, a Toltec. The two leaders, on either side, seem also to be Mexican. The logical thing is to regard the 15 prisoners and the two recumbent figures under the center Toltec as Maya.[113]

Somewhat similar is the design on a bench on the southeast corner of the South Portico in the Toltec Annex at the south corner of the Monjas. There are at least five groups on the front (fig. 693), each with a Toltec leading a Maya prisoner by a long rope. An elaborate scroll appears before each of the latter; sometimes another is shown between the pair.

On the face of a dais in the north room of a building on the top of the east range of the Mercado ball court (Str. 3D4) there is the usual cornice with serpents and, below, a line of figures. In the center is a Toltec associated with the feathered serpent; on either side are four Toltec, each holding a Maya prisoner by the hair (Ruppert, 1952, fig. 129,*c,d*).

At the bottom of each of the two panels of the Temple of the Wall Panels is a line of seated figures. On the north design six figures on each side face a central standing figure associated with a feathered serpent. On the south bas-relief, four and three figures face a central one who seems to have part of a snake behind him and an animal above. All the 19 seated figures are evidently prisoners, each with his arms tied behind his back. Above 15 of these are animal heads, mostly of jaguars. These may be name signs which are found commonly on the Maya prisoners in the Northwest Colonnade (Ruppert, 1931, pl. 11).

These individuals may be seated in chairs with backs; or the back of the chair may be a tail added, in each case, to a body with a distinctly human face.

There is no way to determine the nationality of these figures. Most of the other 23 seem to be Toltec and are usually associated with feathered serpents. One is near a sun disk. Many carry *atlatls.*

The two figures on the cover of the cist are Toltec.

Codices. Among several prisoners shown in the Maya manuscripts are: a figure with no head, attached to a rope held by a priest with a rattle (Dresden 2a); a dead person, painted black, with his arms confined (Madrid 53a); one with no head over whom hovers an axe (Madrid 54b); another with arms tied with an axe above (Madrid 55b); and one in the Tableau des Bacabs

(Madrid 75). In Madrid 86a, a prisoner and an animal are each being conducted by a warrior. In 79a and 80a a black god holds a victim by a rope. Each of the deities holds a death sign in one hand and an offering in the other.

Dresden 60 (fig. 694) is of special interest. In the upper panel are two plumed warriors, each with an *atlatl*, attacking an unarmed man. Below, a fighter, armed with spear and shield, presents his prisoner, with arms bound on his back, to a person of authority, also with the same weapons, who is being conveyed on a serpent palanquin resting on the shoulders of a slave. The bird on the front of the hat of the successful warrior might indicate the Toltec as the superior force here. The jaguar in the upper panel is not unlike the one at the bottom of page 47, one of the five pages of the Venus almanac which has Mexican features.

5. COMPARISONS WITH "CHICHEN MAYA"

In the study of Toltec influences at Chichen, it was to Tula we turned for most of our material. It was found, however, that the influence of the Toltec center extended through Chichimec to Aztec times in the Valley of Mexico, a parallel, to some extent, with the situation at Chichen. Here both Chichen II and III show the result of the contacts with Mexico.

Classic and Late Classic in Chichen II and III

When we study the Maya at Chichen in the Mexican stages, we must examine the evidence from three sources of comparison. The first is the fundamental architectural construction, including the vault of the Classic, which continues into Chichen II and III. In the archæological section of this book, covering mainly the architecture of the later periods of Chichen, the contributions of the Classic Maya have been considered.

To these should be added the Maya masked panel, first found as early as the pre-Classic at Uaxactun. This shows its greatest exuberance in the Puuc and persists into Chichen III.

Table 12 shows the distribution, from the Late Classic of the Puuc onward, of certain geometric and natural designs. Some of these began in the Early Classic. The gesture of defeat or resignation, for example, appears in much of the Maya art from early times. So does the typical artificial deformation of the frontal. At Chichen it is seldom noted except on most of the Maya personages on the gold disks from the Sacred Cenote.

One of the earliest of our sequences is the bead pectoral at the end of a very long necklace. At Tikal and at Uaxactun there are examples dating from the beginning of Cycle 9, with special emphasis on the type at Coba. Two excellent specimens appear on the Lower Temple of the Jaguars.

Other widespread features are representations of the head of the god Tlaloc and the year sign which often accompanies it. The serpent, the jaguar, the fish and lotus, and the turtle also have a wide distribution chronologically and spatially. The sun disk and Venus should be included, although the latter seems to be definitely seen only once in Chichen II (on a gold plaque), but a Venus almanac occurs on certain pages in the Dresden Codex and Venus years on Mausoleum III. The sun disk is one of many features which transcend the Maya area and appear in central Mexico from the Classic down to Aztec times. Finally, the astronomical band should be mentioned, with its finest representations in the Classic period and in the Maya manuscripts.

The second source of comparative material is shown in Table 24. The comparisons are most numerous in the Late Classic. In the Peten, Naranjo is the only site where these features appear with any frequency; Tikal runs a far second. Naranjo, in fact, provides more examples of the features selected for comparison than does any other site.[114] It is in the Usumacinta basin, especially at Yaxchilan and Piedras Negras, that we find the greatest reservoir of similarities. Seibal, Bonampak, and Palenque also come in this region. This is the same section of the Maya area which has usually been considered the home for jade and its manufacture, as seen in most of the jade ornaments taken from the Cenote. It seems as if Naranjo and the Usumacinta centers furnish closer parallels with the "Chichen Maya," especially those portrayed on the gold disks and in the lowest zone of the Temple of the Jaguars, than do the Yucatan sites.[115] In this connection, it should be pointed out that the greater number of resemblances with the southern region may, in some part, be due to the large mass of bas-relief available there in contrast to far smaller amounts in the general region of the Puuc.

The third source of comparative material is in Yucatan, mainly in the region of the Puuc. Excluding two at Chichen, Proskouriakoff lists about 21 monuments as "Late Yucatan, variant." To some of these she adds a question mark. In addition, she lists a few as "Late Yucatan, decadent" and "Late Yucatan (Quality X)." Many of the monuments thus designated as "Late Yucatan" furnish characteristics of interest in this comparative study.[116]

Table 24 also shows a few of the listed features as they occur in the Maya codices.

There are curious variations within the same site. Kabah, according to Proskouriakoff, has a lintel belonging to the "Late Classic, Dynamic Phase (?)," altars and jambs from Str. 2A3 which are "Late Yucatan, variant (?)." The jambs from Str. 2C6 (Codz Poop), on the other hand, are "Toltec (?)."[117] Uxmal has Stela 2, "Late Classic, decadent"; Stela 11, "Late Classic"; Stelae 3 and 4 and others, "Late Classic, variant"; Stelae 9 and 19, "Yucatan, variant"; and Stela 14, "Toltec Period (?)." Xcalumkin has three structures and a lintel, all dated about 9.16.0.0.0, which comes at the beginning of the Dynamic Phase of the Late Classic. The style of the lintel is "Yucatan, variant (?)."

Classic Maya Features Missing in Chichen II and III

It is interesting, in this discussion of Late Classic characteristics persisting into Chichen II and III, to mention those which do not seem to appear in the north, especially at Chichen.[118] One of these is a type of headdress, completely surrounding the face, common in the early and middle periods of Classic and found primarily at Tikal, Copan, and Piedras Negras (Proskouriakoff, 1950, fig. 17). Another feature, present at Tikal, Copan, and Naranjo at about the same time, is a very heavy decorated belt which is unknown at Chichen (*ibid.*, fig. 23). The elaborate loincloth apron, frequently noted at Copan, Quirigua, Naranjo, stretching into the Usumacinta area even to Etzna, Sayil, and other sites in Yucatan, is practically unknown at Chichen (*ibid.*, figs. 24, 25).

Perhaps the most striking omission at Chichen is anything suggesting the ceremonial or serpent bar, which runs through the early and middle stages of the Classic. The manikin sceptre, appearing in the Late Classic in the south, is also missing from Chichen.[119] It is found in the "Etzna Classic Style." An example occurs at Sayil on Stela 5, described as "Decadent." Finally, the highly ornamental bags, found in the Peten and the Usumacinta mostly in the Late Classic, are absent from Chichen (Proskouriakoff, 1950, figs. 31, 33). Those worn by Toltec on the columns of the South Temple are the most elaborate bags at this site.

In the Mexican stages at Chichen we have noted prisoners under various conditions, but nowhere do we find either them or the ones destined for sacrifice arranged in a group. Nor do we find single individuals on a stela under a standing figure of a priest or ruler as we do in Classic times. The stela itself is absent from Chichen although it is found in other sites contemporaneous with all three of the stages here. At the present time, four stelae have been found at Tula. Columns decorated on four sides and arranged in colonnades do not seem to fulfill the function of the stela as we know it even at Uxmal or at Mayapan.

"Chichen Maya" Features Not Found in Southern Classic Sites

After considering the characteristics of the Classic which do not appear in Chichen II and III, we next examine those which are unique at this site.

Several articles of dress have served to distinguish Maya from Toltec at Chichen. One of these is the simple loincloth with long decorated ends which hang at the front and back of the figure. This seems to be absent in the south but there are a few of a simpler type in various Yucatan sites such as on Stela 1 at Yaxcopoil (Proskouriakoff, 1950, fig. 88,*b*). The elaborate loincloth apron is absent from Chichen.

The simple bar bead in the nose is also not generally present in the south, although it is very commonly worn by the Maya, especially those on the disks. "High gaiters are particularly characteristic of Yucatan [Maya] but are not common in Classic sculptures," writes Proskouriakoff (1950, p. 81). Thus another Maya feature in the peninsula is not identified with the south.

Whereas many articles of personal decoration and offensive and defensive weapons are traced to the central Maya area, the actual personages themselves, found at Chichen and identified as Maya, do not, in general, find their counterpart there. These have, in most cases, been identified as various types of priests. We have seen them on bas-relief and on fresco, side by side with the Toltec warrior.

With very few exceptions, those placed in the somewhat questionable role of priests, as shown in Table 23, are all found in Chichen III. There is a possible explanation for the absence here of any personages, dating from Classic times, who resemble these figures. By the year 1150 when, it is suggested, Chichen II ended, whatever contact or influence from the Classic south had been present was greatly attenuated, and an opportunity was opened for the development of a new priesthood which is first recognized in the first stage (B′) of Chichen III.

Among the Toltec, in addition to the typical Mexican in Chichen III, there is an "anomalous" kind with new features. There may be a parallel here with the new type of Maya.[120]

In considering the architecture we noted that various types of plan such as the colonnade, so common in Chichen II and III, at Mayapan, and on the East Coast, are generally absent in the Classic stage.

6. MAYA AND TOLTEC DISTRIBUTION IN CHICHEN II AND III

Table 25 shows the 1,327 figures distributed in Chichen II and III structures. The count does not include any of the personages on the frescoes, any atlantean figures in the round (most of which are Toltec), nor any of those minor figures at the top and bottom or in one of the smaller places on columns, pilasters, or jambs. It can be noted that the relative number of Maya and Toltec shifts from A to B′ and from B′ to B″. On both ends of the series, the Mexicans far outnumber the Maya, whereas in the center the latter are slightly ahead.

Table 26 shows the relative prominence of the two ethnic groups according to their position and number in Chichen II and III structures. The following criteria determine the relative eminence: (1) Position of figure on columns in shrine of inner room of temple in contrast to those in the outer room. (2) Position of figure on column, jamb, and pilaster. (3) Atlantean posture. Here are included the bas-reliefs on columns, both the main figure and the smaller ones at the top, bottom, or in both places (see Table 11). (4) Defeat in battle as shown on fresco or disk. (5) The "surrender" posture, arm on shoulder. (6) Prisoner. (7) Human sacrifice on fresco or disk.

Toltec Supremacy: Chichen A

Table 25 shows that 72 per cent of all the figures in this section are Mexican. Their superiority is clear in the first horizontal section of Table 26.

Excepting small bas-reliefs on column or lintel, there are no Maya in the Castillo or in the Temple of the Jaguars. The Mexicans occupy all the important positions in the structures assigned to this period and, with two exceptions, are always represented as victors. The Maya, on the other hand, are shown as vanquished, expressing "surrender," and, again with the same exception, are victims of sacrifice.

On four of the six panels on the Great Ball Court the Toltec perform the sacrifice, beheading a Maya in each case; on the two middle panels the Maya behead the Toltec. In other words, the Toltec seem to have won four out of the six games.

An assumption here is that the atlantean posture in the bas-relief generally denotes subserviency. The ones so posed are all Maya. In Group A are the eight figures on the Lower Temple of the Jaguars columns; 52 at the top and bottom of the columns, pilasters, and jambs; and 10 on the capitals of the serpent columns of the Castillo. In some cases a single Maya, although not in the position of an atlantean, seems to show an inferior status.

In the Temple of the Jaguars the Maya atlanteans appear on the fresco on the lower border; two are lying at length in the same painting. It is here where battles rage and the Maya are shown in defeat; below, on the same fresco, they express it by a gesture as they are being questioned by the conquering Toltec. Human sacrifice of the Maya definitely appears here twice as well as probably in two other cases.

In the North Temple two Maya appear on each of the jambs but not as atlanteans. At the bottom of each pillar, however, are two Maya lying on their backs and supporting serpents. A single prone figure is at the bottom of the bas-relief. Other Maya occur in the design above, all in the position of a vanquished group with at least one Maya sacrificed.

In the South Temple are 24 Toltec on the columns and a Maya on each jamb.

In the Lower Temple of the Jaguars, on both columns, the eight Maya are "supporters," with others playing a minor role in the lotus border of the bas-relief. On the end of each side wall the Maya appears, perhaps as a sorcerer, in association with the lotus and fish, the underworld symbols. In the lower file on the main bas-relief we have seen him with his weapons presumably as an equal with the Toltec warriors; in the row above, two Maya bring offerings to the feathered serpent.[121] The position of this reptile in relation to the small altar is exactly similar to that of each of the serpents shown in connection with the sacrificial stone in the scene of human sacrifice in the Jaguars vault and in the Temple of the Warriors. If the figure beside the altar in the Lower Temple of the Jaguars is a ball-player, as has been suggested, an incipient human sacrifice may be indicated here similar to the one on the bench of the court.

Finally, in this group might also be included the 15 small atlanteans holding up the altar in the vestibule of the Temple of the Jaguars. This is a type found in the shrine room of several temples in Group B″. It has been suggested that this altar and its supports were moved here from another position, as they do not seem to belong together. These atlanteans and those in the Temples of the Tables show definite Toltec characteristics.

Those images found in the Temple of the Warriors were originally set up as part of the altar in the earlier Temple of the Chac Mool below. Apart from a few wearing mosaic headdress, they do not have Mexican characteristics. Can there be a possibility that, in the two periods when the Toltec seem to have played the leading role, it was considered an honor to support the altar in the inner shrine of the temple? On the other hand, in Group B′, the period suggested for the Temple of the Chac Mool, these figures do not at all show unmistakable Toltec characteristics.

The conquering Toltec and the vanquished Maya are best shown on the Cenote gold disks, where again there is the sacrifice of a Maya.

On jade carvings (not included in Table 26) a Maya is shown on one as a prisoner; on another, with his heart cut out.

Maya Supremacy: Chichen B′

The subdivision of Chichen III into Groups B′ and B″ was based primarily on the fact that the Chac Mool temple was obviously earlier than the Temple of the Warriors and its Colonnade which covered it. Most of the structures in B′ are given in Table 26.

The number of Maya increase considerably in this stage, 51 per cent of recognizable persons, but they never attain the numerical superiority of the Toltec who precede and follow them in leadership.[122] In considering the relative importance of the two ethnic groups much the same criteria of position hold. In several structures (2B2, 6E1) no Toltec are found; in others, Maya alone occupy the shrine room. In the shrine room of the Temple of the Chac Mool there are on the pillars three Maya offering gifts; eight are elaborately dressed personages, some of whom carry spears. These we have called Maya priests. A single figure in the inner room carries a stone knife (fig. 649) and shows the same gesture as that of most of the Toltec in the outer room. Throughout this work he has been called a Maya because of his dress, especially his leggings or gaiters, and the fact that the 11 other columnar figures in the room are all Maya. Many fanciful suggestions occur to account for his weapon and his gesture, but conjectures are already too common in this part of the work and still more will be offered.

In the center of the back wall there was at one time an altar supported by atlantean figures. Under it, buried in the floor, was a stone jar containing a turquoise mosaic plaque, along with jade and shell objects. At either side of the altar, running around the ends of the room, were two so-called benches with a fresco on the face of each. The one on the right or south side shows 14 Maya priests; that on the other side, 9 Toltec warriors, each seated on the back of a jaguar. "The painting," writes Morris (1931, p. 135) is ". . . of an entirely different quality from that on the other bench . . . fewer meticulous details, less care in execution. . . ."

In the outer room of this temple, the figures on the 12 faces of the three extant columns and the six on the two pilasters are Toltec; a majority of them give the "surrender" gesture.

The ascendency at this time of the Maya religion and the relative eclipse of the Toltec warrior seem clear. Here, in this holy place with its precious offering, Maya priests are given the prominent positions and are most meticulously portrayed.

In the Northeast Colonnade the four columns have 16 Maya priests, all associated with the altar. Two pillars rise from the platform itself, an unusual arrangement, and two are directly in front of it. The altar, with its cornice of meandering serpents and its procession on the three sides below, is exactly similar in general type to the five other altars all placed in B″. This altar has a double row of figures probably consisting of 40 persons, at least 36 of whom are Toltec, each associated with a tortuous serpent. This is exactly the same type of procession as is seen in the Northwest and North Colonnades.[123]

In the Xtoloc Temple the north jamb of the outer doorway shows what may be a Toltec carrying a curved weapon. On the other north jamb and on both the south jambs there are Maya, two of whom are donors. The two columns with bas-relief have all eight sides filled by Maya (Ruppert, 1952, figs. 134–36). Thus out of 12 places only one is occupied by a Mexican.

In the High Priest's Grave there are four columns which support the vaults of the shrine, the only room in the structure. All 16 figures are clearly Maya, with the single exception of the Toltec on the south side of an interior column.[124]

The next of the temples showing Maya in the important positions is the Temple of the Little Tables. The available figures—two columns in the lower portico, three in the outer room of the temple, and a jamb and pilaster—number 23 Toltec in all. In the shrine room there are four columns, five faces of which are recorded and all represent Maya.

In Str. 2B2 all eight faces of two square entrance columns show Maya. In Str. 6E1 the two columns are round; the human figures on the drums seem to be exclusively Maya. There are also animal-like figures in the position of atlanteans. This is the temple which has a drum with two panels of hieroglyphics of apparently no chronological significance.

Toltec Supremacy: Chichen B″

The Mexicans seem to have regained their commanding position. The period of Maya hegemony was probably a short one. Unfortunately, there is no way of assigning dates here. The Temple of the Chac Mool and its colonnade were completely covered by the Temple of the Warriors and its peristyle. An altar in the earlier structure was reassembled in the upper temple.

The typical military Toltec remained essentially unchanged throughout all three stages, augmented only by the so-called "anomalous" Toltec. Table 23 shows the priestly individuals, mostly Maya, which came in Chichen B′ and persisted into B″.

There was a general deterioration in the character of the carvings, evidenced especially in the mask design at the top and bottom of figures.

The Mexicans, constituting 72 per cent of the figures in Chichen A, advanced to 74 per cent in B″. Before looking in detail at the renewal of Toltec representation, let us consider where the new ideas came from. Did they come from another conquest or intrusion by Mexicans from other centers in Yucatan, or did they come from within? Frescoes in Chichen A show a Toltec attack or infusion and the sacrifice of Maya; new frescoes in Chichen B″ in the Temple of the Warriors show an attack followed by a similar sacrifice. That these events were separated by a period of years seems evident.

In Series I of the Maya Katun Prophecies (Roys, 1954) an entry under Katun 5 Ahau (1342–62), which is four katuns after the founding of Mayapan, states that the power of the Itza was greatly increased, the local chiefs were unpopular, the rulers and principal men turned to sorcery. There was war and the military orders fought each other. Could the Itza have been responsible for the end of a short Maya supremacy beginning in Chichen III?

In the Temple of the Warriors Toltec were found both in numbers and in positions of honor. In the shrine room, 28 of the 32 figures are Toltec, mostly warriors. Only one column (19) has four Maya, three of whom are sorcerers. In the outer room, 12 of 48 figures are Maya (Columns 10–12), all priests, including four donors. The three figures on each side of the entrance and the three at the doorway to the inner room are clearly Maya atlanteans.

Maya prisoners appear on the dais of the Mercado, on the southeast bench in the South Portico in the Toltec Annex of the Monjas, on the dais in the building on top of the Mercado ball court, and, probably, on the two panels of the Temple of the Wall Panels. In front of the stairway to the Temple of the Warriors there are 32 figures in all: one Toltec guard and 31 Maya prisoners (with one or two exceptions), each with his wrists tied together.

Of the other Maya in the Northwest Colonnade, about 30 are on the columns, 26 of whom are sorcerers and other types of priests.[125] They seem to fill no very important place in the general distribution of personages. The count does not include a Maya atlantean, the main figure on the only jamb shown.

On the three faces of the dais in this Colonnade and a similar one in the North Colonnade, there are, respectively, 31 and 30 figures. All are Toltec warriors, each associated with a sinuous feathered serpent, except for two on each of the four sides nearest to the front of the two altars. These are figures which have been called "military priests" and, by Charlot (in Morris, 1931, pp. 326–40), "god impersonators." On the North Colonnade there are 13 sculptured square columns in the front row. All the figures are Toltec (48) except those on one column. Some scattered drums show a few Maya.

On pilasters in the Mercado there are six figures, some of whom are Toltec. On the dais seem to be a Toltec executioner and about 18 prisoners (with a possible sacrifice of two), all presumably Maya. On the bench in the building on top of the Mercado ball court are eight Toltec, each conducting a Maya prisoner. Much the same scene is on the dais of the Toltec Annex of the Monjas.

In the Temple of the Wall Panels there seem to be about 25 Toltec and some 19 Maya prisoners, again with a suggested sacrifice. On the cist cover here, a Toltec seems to be surrendering to a second Toltec.

Of the remaining structures listed in Table 26, the following seem to have an all-Toltec complement: the Big Tables (20), the Jaguar Atlantean Columns (26), the Sculptured Jambs (10), and Str. 5B16 (26). Str. 2C3 seems to have five Toltec and three Maya.

The Caracol stone (fig. 686) shows six Maya surrendering to five Toltec.

7. LATE CLASSIC MAYA TYPE

There is a Maya figure which seems to have had an unusual distribution. It is a seated figure with right arm usually bent at the elbow, the hand covering the chest. The head is inside the head and upper jaw of an animal, from which hang long feathers. The figure usually wears a necklace from which are suspended jade ornaments. Speech is sometimes indicated.

The most beautiful example was found at Nebaj in the Department of Quiche (A. L. Smith and Kidder, 1951, pl. 59,*b*). It is surprisingly similar to one reported to have come from "near Teotihuacan," now the British Museum (fig. 695).[126]

One of several jades with the same pose (fig. 696) was found in the Cenote. Among others, Kelemen (1943, pl. 240) publishes one from Oaxaca and a second from the Valley of Mexico, both in the Heye Museum. Another (fig. 697) is in the University Museum, Philadelphia. A jade (fig. 698) with somewhat similar figure came from Colipa, near Misantla, Veracruz. Squier (1870) and Bancroft (4:349) show one of much the same type from Ocosingo, Chiapas.

Batres found a slightly different form (fig. 699) from those already mentioned, carved "on a piece of stone" from Las Escalerillas, Tenochtitlan. This would seem to date from Aztec times. The design is beautifully shown on the famous carved shell from Tula (fig. 700), which has Maya glyphs on the back. One of these is certainly a tun sign. Some of the figures (fig. 701) on the foundation platform at Xochicalco obviously suggest themselves.

Most of the flat carved jade pendants shown here are probably dated about the third or fourth quarter of the 8th century. They are later, for example, than the type of jade bead from the Cenote which Proskouriakoff (1944) has shown as undoubtedly coming from Piedras Negras and dated about the first quarter of the same century.

The wide distribution of these jades seems to point to their center at Ocosingo, Chiapas, and possibly at Palenque and neighboring sites on the Usumacinta extending from Piedras Negras up to its tributaries, the Chixoy and its incoming streams in Guatemala. Figures similar to those on the jades are seen on Stela 33 at Piedras Negras and Stelae 1 and 2 at La Mar.

There is another type of jade with the Maya in full face. It is a seated figure; the arms are in the same position as those just

described, and feathers fall from the headdress, which is the head of some animal. The best example of this is a jade of uncertain provenience owned by the Peabody Museum (Kelemen, 1943, pl. 238,*c*). A jade very similar to this is from Nebaj (*ibid.*, pl. 59,*a*). The Nebaj jades belong to the Late Classic. The pendant of the necklace on these two pieces is a tubular bead which is the main element on the so-called Teotihuacan ornament.[127]

The cache found at Uxmal in 1952 contains a jade *"halach uinic,"* another example of the seated figure. There seems little doubt but that these objects, probably made in the Late Classic, were not limited to the Chichen Cenote but were in circulation in other parts of the country during Mexican times (Saenz, 1952, fig. 6).

A small stone amulet (fig. 702) from the Palacio Quemado at Tula has some characteristics of the group.

8. WARRIORS IN FIGURINES

There are a few examples of clay figures which may represent Maya warriors. Dieseldorff (1926–33, vol. 1, pl. 11) illustrates two from the Alta Verapaz who probably wear quilted body, arm, and leg armor. He shows another (vol. 3, pl. 40,*b*) "from Yucatan," in the University Museum, who carries a rectangular shield decorated with frets. His head is in the jaws of an animal. These all probably date from the Late Classic.

Several crude and very late figurines of seated and standing warriors with spear and shield were found by Gann (1918) in British Honduras.

From Lubaantun, British Honduras, Joyce (1933) illustrates a large number of figurines, among which there are practically no warriors. Two (pl. 5, nos. 5, 11) have trophy heads hanging from their waist.

V

CHICHEN AND THE CENOTE OF SACRIFICE

1. CHICHEN ITZA AND COZUMEL, PLACES OF PILGRIMAGE

Association of the Two Centers

There are several notices by early Spanish authorities to the effect that Cozumel Island, off the northeast coast of Yucatan, and Chichen Itza were places of religious pilgrimage. Landa (1941, p. 109) informs us: "And they held Cozumel and the well of Chichen Itza in the same veneration as we have for pilgrimages to Jerusalem and Rome, and so they used to go to visit these places and to offer presents there, especially to Cozumel, as we do to holy places." Herrera (4, 10, IV) repeats this passage and adds, "And those who had been there were considered sanctified; and those who did not go sent their offerings. And there were some idols that gave replies."

Tomas Lopez speaks of Cozumel and also of a temple there "which was considered a very religious thing." Landa (p. 184) adds to his statement above: "Besides sacrificing in their towns they had those two wicked sanctuaries of Chichen Itza and Cozumel, where they sent an infinite number of poor wretches for sacrifice—in one place by throwing them down a precipice and in the other by taking out their hearts."

Cozumel Island

Road to pole: embarkation point. Pilgrimages to the two famous shrines were undoubtedly accomplished with comparative ease by means of well-paved roads connecting various parts of the country (see Chapter VII). Of these routes taken by the devotees and traders Cogolludo (4, VII) mentions one which ran to Pole, a port on the east coast of the peninsula opposite to the island of Cozumel:

> There are remains of paved highways which traverse all this kingdom and they say they ended in the east on the seashore where it crosses an arm of the sea for the distance of four leagues which divides the mainland from that island. These highways were like the *caminos reales,* which guided them with no fear of going astray so that they might arrive at Cozumel for the fulfillment of their vows, to offer their sacrifices, to ask for help in their needs, and for the mistaken adoration of their false gods.

Worshippers from a distance. From one of the *relaciones* (RY, 2:54) we learn that "they went [to worship at Cozumel] from Tabasco and Xicalango and Champoton and Campeche and from other distant pueblos, they came to see and to worship the said idol. . . ." Lizana (1, IV) speaks of roads "which reached to the ends of the land and passed to Tabasco, Guatemala and Chiapas" (see Redfield, 1941).

Goddess Ix Chel. The center of veneration on the island seems to have been the shrine of Ix Chel, who was worshipped under many attributes. Landa remarks (p. 129): "For their child-births they had recourse to the sorceresses, who made them believe their lies, and put under their beds an idol of a goddess called Ix Chel whom they said was the goddess of making children." (See Chapter III-7F.)

The image in her honor at Cozumel is described by Cogolludo (4, IX):

> Anciently all this country and the Indians went ordinarily to this island to worship a certain idol which they had in certain ancient buildings and which they venerated greatly. . . . [RY, 2:54–55] This idol was in the square temple. . . . It was very singular and different from the others; its material was baked clay; it was a large hollow figure joined to the wall with mortar. At its back was something like a sacristy, in which the priests had a small hidden door opening into the back of the idol. Into this one of the priests entered, and from there he replied to the requests which were made. The unhappy dupes believed that the idol spoke to them and credited what was said to them; and so they venerated it more than the others with various offerings; sacrifices of blood, birds, dogs and sometimes even men. Since, as they believed, it always spoke to them, they came together from everywhere in such great numbers to consult it and to beg for help in their troubles.

We read further (RY, 2:54–55):

> . . . and in the said buildings where the said idol was, they had and there was an old Indian whom they called *Alquin* (Ah Kin) which means in our language cleric or priest. And the Indians went to see the idol speak with the said *Alquin* and told him what they came for and that which they wished. And the said old Indian, *Alquin,* spoke with the idol and with the demon which they said was inside of it; he replied to all which was asked and they learned from him all that they wished. . . . And they brought him as a present something of all the products of their lands.[1]

Chichen Itza

The attempted Xiu pilgrimage. The appearance of the Tutul Xiu in the history of Chichen Itza has already been discussed. Here we are concerned with the most famous and best documented attempt by the Xiu to make a religious pilgrimage to this site in 1536. The previous year ended the second phase of the first Spanish conquest of the peninsula. After a disastrous campaign, Montejo the Adelantado, his son, and most of his soldiers had departed for Mexico. It was in this same year that Father Jacques de Testera, a Frenchman, with four assistants arrived in the country. They were the first ecclesiastics to come to Yucatan who remained for any length of time (Tozzer, 1941, p. 67). According to Torquemada (19, XIII): "They [the Indians] agreed to receive them [the Franciscans] on the condition that they should come alone and that the Spaniards [soldiers] should not enter upon their land. . . . Having agreed to this, . . . the friars were very well received and tenderly treated by the Indians in whom they found much disposition and readiness to be taught the word of God."

Thus, in 1536, the country was at peace so far as the Spanish soldiery and missionaries were concerned. Among the native groups themselves, however, there was the usual enmity. Several years later Landa (p. 40) observes: "'Between the three great princely houses, namely the Cocoms, the Xius and the Chels, there were great strifes and enmities, and they exist even today although they have become Christians. The Cocoms said to the Xius that they were foreigners and traitors who had assassinated

their natural lord and stolen his domains." So much for the setting.

The beginning of the tragedy is described by Landa (p. 54):

> After the departure of the Spaniards from Yucatan (1535) there was a drought; and as the inhabitants had wasted their maize in the wars with the Spaniards, such a famine fell upon them that they were reduced to eating the bark of trees, especially of one which they call *kumche*, the inside of which is soft and tender. And on account of this famine, the Xius, who are the lords of Mani, resolved to offer solemn sacrifice to their idols, and brought them slaves of both sexes to throw them into the well of Chichen Itza. And they were obliged to pass by the town of the Cocom lords, who were their declared enemies, and thinking that at such a time they would not renew their old quarrels, they sent to ask permission to pass through their lands; and the Cocoms deceived them by a kind answer, and giving them lodging all together in a large house, they set it on fire and killed those who escaped. And this gave rise to great wars and the locusts kept coming to them for five years, so that nothing green was left. And they experienced such a famine that people fell dead on the roads, so that when the Spaniards returned, they no longer recognized the country.

Herrera (4, 10, I) gives virtually the same account of the massacre which took place at Otzmal, south of Sotuta. In addition to the fact that the Xiu were considered by the Cocom as "foreigners and traitors," we should note the friendliness of the Xiu toward the Spaniards, with the claim by the Cocom that they (the Xiu) had "brought them to the land," thus committing "treason." All this increased the enmity of the Cocom toward the intruders.

The Xiu Chronicles (Cronica de Oxkutzcab), that of Nakuk Pech, and many of the Books of Chilam Balam refer to Napot Xiu, "the rain bringer" or "the rain bringers" and their untimely end. In the *Probanza* of Gaspar Antonio Chi of 1580, we learn that the number of those slain was "forty-odd principal persons" and that "Ah Kulel Chi, the father of Gaspar Antonio Chi" was among those killed.

Cogolludo, confusing the date, places the pilgrimage in 1541 and gives another reason for the crime of the Cocom, but the story is essentially the same except for the introduction of the anecdote of the blinded Ah Kin Chi. His account follows (3, VI) as given by Morley (1920, pp. 480–81) and by Tozzer (1941, p. 55):

> The ambassadors (of the Xiu) left for the Seigniory of Zotuta, and arriving at the capital, thus named, where resided the Cocomes, they (came) into the presence of Nachi Cocom, Principal Lord of that territory; and they made known to him their embassy. Nachi Cocom replied that they should await his reply which he would give within four or five days. Meanwhile he commanded to assemble all the Lords (caciques) subject to him and consulted with them as to their views on what Tutul Xiu had sent the envoy to say; they determined upon an unworthy solution of the matter against all reason and justice, and an act of hatred (which has become) notoriously infamous.
>
> They (the Cocoms) agreed to have a great hunt as if for a festival for the ambassadors (Xius), and their entertainment, and having withdrawn under this pretext . . . to the thick bush, they brought them to . . . Otzmal where they feasted them for three days. For the end of the feast on the fourth day they gathered to eat under a great and beautiful tree, which in their language is called Yaa and in the Castilian sapote. Having continued there the dances and pleasures of the preceding days, the last act of the meal was to behead the ambassadors, violating the sacred security which was due to them as such.
>
> One of them, Ah Kin Chi, a person of superior intelligence, they saved that he might take the news to Tutul Xiu of what they had done to the others and that this had been the reception of his embassy, abusing him as a great coward.
>
> Their barbarous cruelty did not pardon even the survivor (Ah Kin Chi), though they spared his life, for they put out his eyes with an arrow, and then four captains of Nachi Cocom conducted him to the territory of Tutul Xiu, where they left him with all prudence and returned to their own country. The miserable man, thus left alone, gave loud cries that perchance someone might hear him and come to his relief. It so fell out that some Indians heard him and discovered Ah Kin Chi in the lamentable condition referred to, and being brought to the presence of Tutul Xiu he gave the news of the grievous tragedy which had befallen his ambassadors.

There is a difference among the authorities as to the number massacred. They give Napot Xiu on all lists as one of those put to death. The Xiu record gives five as the number. Cogolludo says 12 with Ah Kin Chi, and presents a katun wheel with 13 heads; the extra one, pierced with an arrow and blinded, was Ah Kin Chi who was spared, according to his account. Modern research regards the wheel as similar to ones denoting the 13 katuns. In the Chilam Balam of Kaua, of Mani, and of others, in the lists of the 13 katun gods, Ah Napot Xiu and Kin Chil Coba (Ah Kin Chi) are among the number given (Morley, 1920; Roys, 1954).[2]

Pilgrimages shown by contents of Cenote. Lizana (1, IV) records: "They . . . made pilgrimages from all parts, for which reason there have been four roads or causeways to the four cardinal points."

The objects thrown into the Chichen Cenote show that from countries far south and far north of those mentioned by Lizana and in the *relaciones* pilgrims brought gifts, especially of metal and of jade. Many objects, no doubt, passed from hand to hand in trade but the rich treasure, so far found only in the sacred well, points to great religious fervor.

Tribute paid to lord of Chichen. In several of the *relaciones* there appears repeatedly a statement concerning presents, probably tribute, sent to the lord of Chichen Itza. One *relación* (RY, 2:150) records: "In the time of their heathendom, before the Spaniards conquered them, they paid tribute and obeyed a lord whom they called Naobon Cupul and this man lived at Chichen Itza." Another (RY, 1:120) runs. "Once all this land was under the dominion of a lord who kept his state in the ancient city of Chichen Itza to whom were tributary all the lords of this province and even beyond the province. From Mexico, Guatemala, Chiapas and other provinces they sent them presents in sign of peace and friendship." Commenting on the quotation just given, Roys (1933, p. 176) writes, "We can not but believe that these foreign embassies, which must have travelled for weeks through tropical forests, swamps and waterless wastes to reach a far-off city in northeastern Yucatan, were motivated more by the religious veneration which its famous sanctuary enjoyed than by the political prestige which its rulers enjoyed in such a distant country."

Izamal and other places. A third sanctuary to which pilgrimages were made, according to Lizana (1, IV), was Izamal, visited by people who hoped to be cured of disease.

"Asunción Mita in southern Guatemala," writes Lothrop (1952, p. 106) "also was a center of pilgrimage. This stands in territory traditionally belonging to the Pokomam branch of the Maya, although the sixteenth-century rites seem more Nahua than Maya."[3]

2. MODERN EXPLORATION OF CHICHEN ITZA

The first large site in Yucatan to be extensively described was that of Uxmal. Waldeck (1838) visited this ruin in 1835; Stephens and Catherwood were there on their first trip (1841, 1: xxiv, xxx) and came again on their later journey to Yucatan (1843, 1: vii, viii).

The second great site investigated was Chichen Itza, in many respects the most important ancient site of Yucatan. For over a hundred years it has been exposed to an almost constant stream of explorers, of whom some have made most superficial examinations, a few have plundered, others have gone deeply into special problems of archæological interest. The results obtained from the study of the physical remains of the ancient city stand quite apart from the findings of research among Maya and Spanish documents. The recorded investigations, beginning with the visit of Stephens and Catherwood, are here arranged in their chronological order.[4]

Older Investigators

Stephens and Catherwood: 1842. The two works, each in two volumes, of John L. Stephens (1805–1852), richly illustrated by Frederick Catherwood (1799–1854), still furnish the most readable account of the ruins. These explorers made few actual excavations but the charmingly fresh descriptions of Stephens, supplemented by the accurate drawings of his English companion, furnish even today information valuable to the archæologist. They began their explorations in Central America and Yucatan in 1839, and on their first expedition described Uxmal as the type city of northern Yucatan. On this trip Catherwood carried a camera lucida. On their second expedition they visited Chichen Itza, remaining from March 13 to 29, 1842. They secured material for a fairly close description of the principal structures. On this journey they carried one of the early daguerreotype outfits.

The descriptions and drawings of Stephens and Catherwood were of the very first importance, for they gave to the world the first accurate account of Middle American remains, and a most adequate idea of the wealth and beauty of the ruined Maya cities. Their influence cannot be overestimated.[5] Catherwood's sketches at Chichen Itza were made under considerable difficulties and are not, on the whole, up to his finest productions, excepting that of the east façade of the Monjas. A comparison of his drawings with present photographs discloses the most surprising accuracy and permits us to measure the rate of destruction wrought by nature and by man.

The vividness of their first impression of Chichen is expressed in a short passage which opens the account (Stephens, 1843, 1: 280):

> At four o'clock we left Pisté, and very soon we saw rising high above the plain the Castillo of Chichen. In half an hour we were among the ruins of this ancient city, with all the great buildings in full view, casting prodigious shadows over the plain, and presenting a spectacle which, even after all that we had seen, once more excited in us emotions of wonder. The *camino real* ran through the midst of them, and the field was so open that, without dismounting, we rode close in to some of the principal edifices. Involuntarily we lingered, but night was approaching, and fairly dragging ourselves away, we rode on, and in a few minutes reached the hacienda. Vaqueros were shouting, and a large drove of cattle was pouring in at the gate.

Friederichsthal: 1840. Evidently inspired by the news of Stephens and Catherwood's travels in Central America, the Baron Emmanuel von Friederichsthal, known for his botanical travels in Greece and Serbia, came to Boston to see Prescott, from whom he received a letter to Calderon de la Barca in Mexico. "After visiting Prescott," writes Von Hagen (1947, p. 193), "he left for New York, where he purchased a daguerreotype apparatus and in midyear, 'animated by Mr. Stephens' account,' as he acknowledged, Friederichsthal left for Yucatan. His archæological tour, in the manner of a man of fashion, was scarcely profound, although he was the first European to visit Chichen Itza."[6]

The trip added nothing to our knowledge of the ruins. He is reported to have prepared drawings from his daguerreotype apparatus but these, so far as is known, have never been published. Von Hagen (1947, p. 194) writes, "He also exposed for the first time in history daguerreotypes of the Maya structures in Yucatán, twenty-five of which he exhibited at the British Museum on his return." On October 1, 1841, he presented a paper (1841), supposedly written by Eyries, which was his only publication. There is also a letter (1841a) written after his return to Europe.

Norman: 1842. Recognizing the interest aroused by Stephens' first book on his travels in Central America (1841), Benjamin Moore Norman (1809–1860) called on the acclaimed author in New York well recommended, and left with a letter of introduction to Yucatan. Leaving New York in November 1841, Norman had the decided advantage of following Stephens in his first years of travel in the central part of the peninsula. In 1842, finding himself in Valladolid in northeast Yucatan, he wrote (1843, p. 101), "I also heard of ruins in the neighborhood of Chi-chen, which, for reasons that need not be mentioned, I concluded to visit first." The undeclared motive was, undoubtedly, the fact that Stephens and Catherwood were again in Yucatan and planned to visit Chichen. Norman was there from February 10 to 14, about a month before Stephens and his party arrived on March 13.

Norman's description (1843, pp. 104–28) of the Yucatan ruins is most inadequate. His plans and his crude and inaccurate drawings are practically worthless. There is no easier way to study the comparative value of the illustrations in Norman and those in Stephens than by examining the drawings of a single building and remembering that they were made at practically the same time. For example, the east façade of the Monjas at Chichen Itza is given by Norman (p. 118) and by Catherwood (in Stephens, 2:293). Compare the latter for accuracy, with Maudslay's photograph of the same building (vol. 3, pl. 15) taken almost 50 years later.

Exploration was halted for some time by the War of the Castes (1847–53), following several years of uneasy relations between Yucatan and Mexico as regards the Spanish portion of the population. But the War of the Castes was a general rebellion of the Maya Indians against the whites, and seems to have been precipitated by the fact that ship-loads of these aborigines were being exported to Cuba as slaves. The rebellion broke out in Tepich and resulted in the evacuation of many flourishing towns in the eastern half of Yucatan, and in the formation of

several independent Indian states. The hacienda of Chichen Itza felt the full impact of this war, and for many years afterwards lay in an abandoned condition.

Charnay: 1860, 1882. After Stephens and Catherwood, the next visitor of importance was Claude Joseph Désiré Charnay (1828–1915). He made three trips to Middle America: the first, from 1857 to 1860, under the auspices of the French Ministry of Public Instruction; the second, from 1880 to 1882, under the same auspices and with aid from Pierre Lorillard of New York; and the third in 1886.[7] On his 1882 trip to Chichen Itza, he was accompanied by Alexander Agassiz of Boston.[8] On his last trip in 1886 he does not seem to have visited Chichen. He was probably one of the first explorers in Yucatan who took with him a modern photographic outfit.

Charnay's investigations at Chichen Itza appear to have been rather cursory except for his excellent photographs and his series of molds of important sculptures which supplied casts to several museums. The Peabody Museum is one of those which has a copy of part of the famous bas-relief of the back wall of the Lower Temple of the Jaguars. It also has the carved door jambs and the front and back of the wooden lintel of the Temple of the Jaguars. Charnay overlooked the carving on the lower side which was later supplied by Miss Breton.

His more extensive explorations on the highlands of Mexico enabled Charnay to find historical significance in many resemblances between the buildings and carved stones in the National Museum, Mexico, from Tula and Teotihuacan on the one hand, and those of Chichen Itza on the other. On these similarities rests his famous Toltec theory to account for the origin of the Maya civilization. Only partially correct in his ideas, he must be given credit for being one of the first to point out the strong Mexican influence at Chichen.

It was on his second trip to Chichen that Charnay made his unsuccessful attempt to dredge the Cenote of Sacrifice. This will be discussed later.

Le Plongeon: 1874, etc. "Dr. Le Plongeon (1826–1908) is an enthusiast in his chosen career, that of an archæologist and an explorer," writes Stephen Salisbury (1877, p. 55). He adds, "In 1873 . . . Dr. Augustus Le Plongeon, a native of the island of Jersey, of French parentage, together with his wife, Mrs. Alice Dixon Le Plongeon, an English lady, attracted by the wealth of opportunity offered to them for archæological study in Yucatan, visited that country." A few facts of his previous activities are given by Salisbury. He was educated in Paris. In 1849 he went to California as an engineer. He visited Peru and traveled with Squier, taking photographs of the ruins. He came to New York in 1891. Ill-fate seems to have pursued both Le Plongeon and his wife for most of their lives. They made several trips to Yucatan after their first visit in 1874.

Opportunities for work were great, but the visionary and fantastic theories of Le Plongeon prevented him from adding much to our knowledge of the ruins. He made molds of sculptures at Chichen Itza and carried on excavations which revealed several interesting works of art, the most famous of which is the original chac mool. This seated figure he had hoped to show at the Centennial Exhibition in Philadelphia in 1876. The Mexican government naturally took possession of it and the stone is now in the National Museum in Mexico. The utterly fanciful name which he gave to the carving is typical of the disordered imagination which ruins Le Plongeon's work. He elaborated theories of cultural contact between the Old and New Worlds. His baseless observations on the existence of masonry in ancient America and his support of the theory of Atlantis are still being quoted by undiscerning writers. He derived Egyptian civilization from Yucatan and declared the Greek alphabet was a distorted Maya hymn.

The list of works by Le Plongeon is long, and although the texts are of slight value, many of the photographs have historical and archæological significance.[9] Nowhere is this better brought out than in his photograph, plan, and restoration of the portico of the Temple of the Jaguars (1896, pls. 11, 35). An altar supported by 15 atlantean figures is clearly shown standing before the door of the inner room. These figures, numbered as they originally stood before being buried by Le Plongeon, were brought to light again in 1903. The restorations of this temple by Holmes, Maudslay, Totten, and Fernandez fail to recognize the former existence of this remarkable altar. It is shown by Dieseldorff (1926–33, vol 3, pl. 1), on which our figure 85 is based. The 15 figures, now in the National Museum, Mexico, were photographed and the prints colored by Miss Breton immediately after having been rediscovered (Seler, vol. 5, pls. 16–20).

Early Modern Investigators

Visitors to Chichen in the second and third quarters of the 19th century contributed, in some cases, excellent descriptions and good pictures, and could be called explorers. Explorers in the last quarter of the century and the first of the next, however, can be called archæologists. In their generally scientific approach, these early modern investigators have produced plans, cross-sections, and elevations.

Maudslay: 1889. The first investigation of Chichen Itza that can correctly be called scientific was that of Alfred Percival Maudslay (1850–1930), an English gentleman. Being aroused by Stephens' accounts of the Maya ruins and having gained fame as a colonial administrator in the western Pacific, in 1881 he turned to Guatemala "in the hope that I might reach some of the ruins so admirably described by him [Stephens]." As an amateur, he entered the field of Maya archæology, and as such his work continued. His admirable plans, drawings, and photographs remain to the present time the most detailed, the most accurate, and in every way the most satisfactory single study of the Maya ruins. His monumental work, forming the archæological section of the *Biologia Centrali-Americana* (1899–1902), is indispensable to all students of Maya hieroglyphic writing as well as to the archæologists of Middle America.

His trip in 1881 was the first of seven elaborate expeditions undertaken by him, from this time until 1894, entirely at his own expense. In 1893, upon the death in Copan, Honduras, of John G. Owens, one of the members of a Peabody Museum expedition to these ruins, Maudslay took over the interests of the Museum under the contract for archæological work between the government of Honduras and Harvard University. It is primarily to Maudslay that we owe the continuation of the work and the publication by J. T. Goodman of San Francisco on the Maya hieroglyphic writing. This is not the place to write of Maudslay's own contribution to this side of Maya archæology. In 1889 he spent five months at Chichen Itza, taking up his residence in the south room of the second tier of the Monjas.

The photographs of the site were made by Henry N. Sweet of Boston.[10]

Miss Annie B. Hunter, an Englishwoman, should be mentioned here as being responsible for the accurate line drawings of the hieroglyphs found by Maudslay in his investigations and published by him in his great work. This archæologist also interested another English lady, Miss Adela C. Breton, especially in the ruins of Chichen Itza. Her work is described below.

Maler: 1891, etc. The Maler or Maller family came from Karlsruhe, Baden. In 1842 Teobert was born of German parents, Frederick Maler and Guillermina Schwarts, in Rome, where his father was the ambassador to the Vatican from the Dukedom of Baden. He studied architecture and engineering at the Politechnical School of Karlsruhe. In 1863 and again in 1865 he was in Vienna where he was clerk in the Engineering Service of the Austrian-Mexican Volunteers. Later, he was a captain in the Imperial Mexican Army during the short and unfortunate reign of the Emperor Maximilian. During this time he was a member of the suite of the Empress Carlota on her visit to Yucatan in 1865. It was on this trip to Uxmal that he first felt in his breast "el alma de Mayab." After the Empire came to an end in 1867, he stayed in Mexico and visited Mitla and Palenque. He remained in the country until 1878 when he left for Paris, after which he visited Constantinople to see his *hermano de leche*, the Turkish Sultan. He also went to the Caucasus and to Armenia.

In 1886 he returned to Mexico, finally arriving in Yucatan, where he spent the remainder of his life, dedicating himself with success to the archæological exploration of the Maya ruins.[11] He died at his home in Merida, 619, Calle 59, on November 22, 1917.

Maler was famous chiefly for his pictures of Maya ruins, leaving *millares* which passed to the Mexican Government. He was a great explorer and a most painstaking photographer. His outstanding achievement was the investigation of the ruins in the Peten, Guatemala, and along the Usumacinta River under the auspices of the Peabody Museum, which published his contributions. The text of these works is of much less value than the photographs. Earlier, Maler had carried on explorations in Yucatan, especially in the Puuc region. He made several trips to Chichen Itza, the earliest of which seems to have been in 1891–92.[12]

E. H. Thompson: 1892–1923. The name of Edward Herbert Thompson (1860–1935), for many years United States Consul at Merida and Progreso, Yucatan, will always be closely associated with Chichen Itza. For almost 50 years he was the owner of the hacienda on which most of the ruined city stands. For much of this time Don Eduardo and his wife were genial hosts to all travelers and investigators visiting this site. Thompson's main achievement, the dredging of a part of the Cenote of Sacrifice, together with a short outline of his other archæological work, is given later.

Holmes: 1895. While serving as Head Curator of Anthropology at the Field Museum, Chicago, from 1894 to 1897, William H. Holmes (1846–1933), as guest of Allison V. Armour, made a short trip to Mexico and Central America which resulted in his famous work in two volumes, *Archæological Studies among the Ancient Cities of Mexico*, a publication of the Field Museum. On the subject of Chichen Itza it stands, in importance, next to Maudslay's volume on the same site.[13] This work is still essential for its detailed architectural drawings of the ancient structures. His famous panoramic sketches of ruined sites have been reproduced more often than any other single feature connected with Middle American archæology. He was at Chichen Itza for only seven days, yet his studies of some of the buildings there have never been superseded. He was the last of the group of the pioneers in American archæology, which include Daniel G. Brinton, Frederik W. Putnam, Cyrus Thomas, and J. Walter Fewkes.

Seler: 1902, 1906, 1910. Dr. Edward Seler (1849–1922) of Berlin, one of the greatest of all Mexicanists, wrote on a large variety of subjects relating to Middle America. His collected works fill five thick volumes (1902–1923). Although Maya archæology was not one of his primary interests, he was at Chichen Itza for short visits in 1902–03, 1906–07, and 1910–11. The most original feature of Seler's work at this site relates to the atlantean figures supporting sacrificial tables and similar figures in bas-relief on columns and door jambs.

His first important article on Chichen Itza seems to have been his "Quetzalcouatl-Kukulcan in Yucatan" (1898). This furnished the foundation for his "Die Ruinen von Chich'en Itza in Yucatan" presented at the International Congress of Americanists in Vienna, 1908. Before this appeared in the Proceedings of these meetings in 1910, it came out as a separate publication in 1909. This, in turn, was greatly amplified and reappeared in his *Collected Works* (5: 197–388, Berlin, 1915).[14] It is of great importance and many of his illustrations have been used here. He was the first writer to go into minute detail in his description and explanation of many of the features at this site.

Breton: 1900–1904, 1937. Miss Adela Catharine Breton was born December 31, 1849, and died in England June 13, 1923. Her father was Commander William H. Breton, R.N., and her grandfather was Peter Breton of Jamaica.

From 1894 to 1899 she spent much time in archæological investigations in Mexico. From 1900 to 1904, and again in 1907, her interests turned to the Maya area centering at the ruins of Chichen Itza. Her great work, carried out at the suggestion of Alfred P. Maudslay, was copying all the frescoes in the Temple of the Jaguars at Chichen. This most accurate and painstaking contribution can be understood only by those who saw her laboriously working over the mutilated paintings. Her original colored tracings are at the City Museum, Bristol, England. Reduced copies also are there, at the Peabody Museum in Cambridge, the University Museum in Philadelphia, and the Quebec Museum. The two first institutions also have copies, natural size, of the fresco in the south vault of the Jaguars. In 1903 a line block of the scene depicted here was made, and a number of hand-colored prints were taken from this plate.

Her work at the same structure included casts of the three sides of the wooden lintel of the doorway leading into the painted chamber, with her own drawings of the designs, thus correcting those given by Maudslay on the front and back and recovering that on the under side. She also made casts of the door jambs which she colored, and then made drawings of these. The top and the 15 atlantean supports of the altar formerly standing before the door of the painted chamber were drawn and colored.

She also rescued the colors still remaining on the bas-relief of the lower chamber (E) of the Jaguars. These she transferred to

the Peabody Museum's and the American Museum's copy of Maudslay's drawings; these, in turn, were used in painting the cast of part of this bas-relief in the Peabody Museum. A copy of the same cast in the University Museum at Philadelphia was colored by Miss Breton.

Other work by her at Chichen included copying some of the bas-relief on the North Temple (C) of the Great Ball Court, the remains of the Toltec painting in the vault of the Monjas, the door jambs at the Castillo, and the lintel of the Akabtzib.[15]

Late Modern Investigators

Curiously enough, with the exception of the slight but destructive work of the Le Plongeons, a relatively small amount of digging by E. H. Thompson, and some work on the Great Ball Court and the Castillo by Mexican explorers practically no excavations were made at Chichen until toward the end of the first quarter of the present century.

Carnegie Institution of Washington. A modern approach to archæological research was brought to Yucatan with techniques, founded on long and careful experience, begun under A. V. Kidder in that training ground for so many young American archæologists, our own Southwest.

In 1914 Carnegie Institution of Washington entered the Maya field under the direction of Sylvanus G. Morley. Ten years later, after a thorough review of the entire area and numerous explorations especially in the south, it was decided to make Chichen Itza the center of a group of integrated studies in Yucatan. Morley was the director throughout the course of the Chichen Project (1924–40).[16]

Beginning on January 1, 1924, a contract was signed by the federal government of Mexico conceding to the Institution "permission to carry out archæological explorations and excavations as well as all such repairs and restorations as may be necessary in the ruins of Chichen Itza . . . for a term of ten years." At the end of the term the contract was renewed for several years; after 1933 there was no major digging at the site. Excavations ended in 1936, and the Chichen Project was officially closed in 1940.

In 1930 A. V. Kidder became the head of the Division of Historical Research of the Institution, and all the work of the Institution in the Maya area was carried on under his direction until 1950, when H. E. D. Pollock became the director. In 1951 the name of the Division was changed to Department of Archæology. Thereafter Mayapan was the center of the investigations.

The manifold activities of the Institution can be seen by the enumeration of the types of work undertaken, not only at Chichen and Mayapan, but in other parts of Yucatan. Archæological investigations, restoration and repair were carried out by Mr. and Mrs. Earl H. Morris, Karl Ruppert, Paul S. Martin, Gustav Stromsvik, John S. Bolles, Russell T. Smith, Oliver G. Ricketson, H. E. D. Pollock, J. E. S. Thompson, and R. Wauchope.[17] Architecture and ceramics formed the core of archæological studies, but exploration and mapping of various sites were carried on concurrently. In addition, studies were undertaken in ethnography, linguistics, physical anthropology, botany, ornithology and other biological sciences, agronomy, and public health. Documentary studies included colonial history and translation of aboriginal manuscripts.

The structures at Chichen can be divided into two main chronological groups: those belonging principally to the Maya horizon of the Puuc culture period and those dating from the later Toltec-Maya occupation. With a few exceptions (to be especially mentioned) the archæological investigations by Carnegie Institution have been centered on buildings dating from the latter period. The most important monuments which have been excavated, repaired, and published by the Institution are the Temple of the Warriors with the Northwest, West, and North Colonnades (Morris, Charlot and Morris, 1931); Temple of the Wall Panels (Ruppert, 1931); the Caracol with its West and South Annex including the East Building, the Portal Vault, Sweat House and Bench House (Ruppert, 1938); the Mercado (Ruppert, 1943); and the Casa Redonda (Pollock, 1936). The Monjas (Carnegie Institution of Washington, Year Book Nos. 32 and 33) with its two annexes, the Iglesia, and the neighboring ball court were studied by John Bolles and Russell Smith. This complex, including the southeast annex and the Iglesia, dates mainly from the Maya period, but the annexes and ball court were added in the Toltec-Maya period. The Temple of the Three Lintels (Str. 7B3), a Maya-Puuc building, was completely restored by Paul Martin.[18]

The last work at Chichen directed by the Institution was done in 1953 by D. L. DeHarport, who made approximately 1800 negatives covering much of the bas-relief still above ground, most of which had never been photographed.[19] In 1954 K. Ruppert and A. L. Smith made short examinations of the house mounds, and R. E. Smith and E. M. Shook investigated the ceramics in certain places in the site.

Mexican Government: 1906–. The former Dirección de Arqueología is now the Instituto Nacional de Antropología e Historia. Founded by Alfonso Caso, it is at present headed by Ignacio Marquina. The Dirección de Monumentos Prehispánicos, a branch of the Instituto, is under the head of Eduardo Noguera and has direct charge of the site of Chichen Itza together with those of all the other ruins in Mexico. This institution has directed very successfully the stabilization and partial restoration of a number of the most important monuments of the Toltec-Maya period of the city, or, as it is sometimes called, Nuevo Chichen.

The most spectacular piece of reconstruction was the stone refacing of the two stairways and the terraces on the north and west sides of the Castillo. This was started in 1906 and came to a climax in 1930 when the *Templo Oculto* was discovered within the outer pyramid.

Another most successful restoration was that of the Ball Court group, including the most difficult rebuilding of the façade of the Temple of the Jaguars. The two walls of the playing field were repaired and the two benches with their bas-reliefs recovered from the debris of the fallen walls. The North Temple (*Templo del Hombre Barbado*), the South Temple (*Tribuna Meridional*), and the Lower Temple of the Jaguars (*Anexo Oriental*) were all beautifully restored.

Among the other structures rebuilt by the Mexican Government are the so-called Mausolea in the court north of the Castillo: the Temple of the Eagles or the Tomb of the Chac Mool (I), and Tzompantli (II), and the Temple of the Cones (III).

To the work of many people do we owe these most satisfactory results. Ignacio Marquina, the present head of the Instituto Nacional de Antropología e Historia and once the Director of Prehispanic Monuments, had charge of much of the restoration. With him were associated J. Reygadas Vertiz and the following inspectors and custodians of the ruins: Santiago Bolio (1906), Andres Camara Solis and Juan Martinez Hernandez (1913–16), Eduardo Martinez Cantón (1916–35), Manuel Cirerol Sansores (1935–41), Jose Anacleto Erosa Peniche (1941–49), and Alberto Ruz Lhuiller (1949–). Others who did valuable work at Chichen were Miguel Angel Fernandez, Enrique Juan Palacios, and Jorge Acosta.[20]

3. THE CENOTE OF SACRIFICE

Before looking at the Cenote of Sacrifice itself, let us consider those structures which seen to have figured in the actual setting of the rites at the "well."

Chichen, a forest or a field about 1560. It is interesting to note that of all the large and striking buildings here, Landa names only four. He writes (1941, pp. 19, 72, 177–79) of the Castillo or "Temple of Kukulcan" and gives an imperfect plan. He also speaks (p. 179) of two small stages of hewn stone and of the "small building" at the edge of the Cenote. He fails to mention the huge wall or the Great Wall of the Ball Court or any of the other structures surrounding the plaza in front of the Castillo.

It is probable that this court and its two "theatres" were kept cleared of vegetation on account of the pilgrims visiting Chichen to worship at the sacred well, and that the rest of the site was so overgrown with forest that Landa saw nothing of the towering Caracol or Monjas to the south. There is indirect evidence of this where Landa (p. 25) writes of a "building [at Mayapan] of a round form, with four doors, entirely different from all the others in that land." This structure is not unique. The Caracol at Chichen Itza is round and has four doors. If it had not been concealed in the bush, it is difficult to understand why Landa did not notice it, as it is but a short distance from the Castillo.

We do not know the actual date or dates when the Bishop was at Chichen Itza. He arrived in Yucatan in 1549 and remained here until 1563. It was during this first period of residence that he was at Chichen. He went back to Spain for 10 years before he returned as Bishop, probably bringing with him his *Relación*. Six years later (1579) he died in Merida.

The obliteration of most of the buildings of Chichen by the bush, as suggested above, is uncertain, for in 1588 Ciudad Real (*Relación* on Ponce, p. 322) writes, "These buildings [of Chichen Itza] lie in open country and pastures. . . . There is now in that place, and near those buildings, a cattle-ranch." Assuming that Landa was at the ruins in 1558, the land might well have been cleared sometime within the 30 years up to the time Ciudad Real wrote his account. Changes must have taken place within this period as Landa speaks of the rites at the Cenote in the present tense whereas Ciudad Real, writing in 1588, speaks of them as belonging to the past.

In much later times the site was a cattle ranch for many years. It is evident that in 1842 (Stephens, 1843, 1: 281) that "the field [containing some of the main ruins] was so open that, without dismounting, we rode close in to some of the principal edifices."

The Castillo or Temple of Kukulcan. From Landa we learn of the "three lords who were brothers" and "the great lord, named Kukulcan," and "the principal building which is called Kukulcan." It was within this pyramidal structure that the Mexican government discovered the earlier building now called the Castillo *sub*.

The Plaza. North of the Castillo there is a large court (fig. 1) about 750 feet east and west and 600 feet north and south. The structures surrounding this plaza have been described in Chapter III. With the exception of the Ball Court and its accompanying buildings, all the construction here seems to belong in Chichen III. The famous causeway, leaving the court on the north side, is described below.

"Stages." Within the plaza are three structures, sometimes called stages or platforms, two of which are described by Landa (p. 179): "At some distance in front of the staircase on the north [side of the Castillo], there were two small stages [21] of hewn stone, [each] with four staircases, paved on the top, where they say that farces were represented, and comedies for the pleasure of the public." [22] These two structures are now known, respectively, as the Tomb of the Chac Mool or the Temple of the Eagles, and the Temple of the Cones, the latter standing almost in the very center of the court.[23]

The third structure in the court, near and north of the Chac Mool tomb, is called Mausoleum II or Temple of the Skulls (Maudslay's No. 12, Str. 2D2). It is a Mexican *tzompantli* or skull rack in stone. This and the Temple of the Eagles have been excellently restored by the Mexican Government. Mausolea I and III are undoubtedly associated with the Jaguar-Eagle cult; Mausoleum II, with human sacrifice and the ball court.

Causeway. "From the court in front of these stages," observes Landa (p. 179), "a wide and handsome causeway runs, as far as a well which is about two stones' throw off." This road, which starts about 300 feet north of the Temple of the Cones, is built on a rubble foundation and is paved; it is about 33 feet wide and is raised slightly above ground level. The road runs for about 900 feet to the south side of the small structure which stands on the very brink of the well. At the north end on the east side is a paved platform from which the victims of sacrifice are supposed to have been hurled.

A drawing by Proskouriakoff (fig. 703) shows the sacred well, the causeway leading from it, the plaza before the Castillo, and other structures in this court. Mausoleum III is visible; Mausoleum I is screened by Mausoleum II. The Ball Court group lies to the right. In figure 704 we see the Sacred Way as it appears today, with the Castillo in the distance.

Cenote of Sacrifice. The *Relación* of Valladolid (RY, 2: 24–25) speaks of the Castillo or Ku which "lies between two cenotes of water, very deep. They called one of them the Cenote of Sacrifice. [The place] was called Chichinica, after an Indian who lived at the foot of the Cenote of the Sacrifice who was called *Ah Kin* Itza."

This sacred well is the subject of the frontispiece, looking across to the north rim. It is about 168 feet in north-south diameter, over 200 feet east-west. The plan of the well, the shrine on the south side, and the end of the Sacred Way are shown in figure 706; the section of the south side, in figure 707. The walls are practically vertical except on the south side. Unlike the grand cenote or Xtoloc Cenote which is south of the Castillo and from which the natives obtained their water, there is no path or other means of reaching the water. The water level in the well evidently fluctuates; it has been reported anywhere from 60 to 80 feet below the rim. The greatest depth of water

lies near the center and averages about 36 feet; this decreases gradually toward the sides. Between 30 and 60 feet of accumulated detritus, mud, and blue silt rest on the uneven bottom of the well. Landa writes of "the very green water and I think that the groves with which it is surrounded cause this." Cole thinks it is more probable that the green color is caused by algae.

On the south side of the pool the wall overhangs 14 feet measured from the surface of the water. For about 70 feet along the east side the upper portion of the wall projects in a great shelflike edge about 20 feet above the water. The walls are made up of projecting ledges, due to the varying degrees of hardness of the strata. There is a slightly northward dip of the rock. On the west side a narrow beach has formed upon a ledge, almost level with the water. On this grow a number of native cork trees (*Anona palustris*, Linn.).

Landa (p. 182) describes the well as "seven stadia [about 39 feet] deep down to the water" and as "more than a hundred feet wide, and of round shape, and of sheer rock, down to the water." The slight fluctuation in the water level would not account for the difference between Landa's figures and the distance of 65 feet previously given. In several of the early references, the cenote is incorrectly described as having been "hewn" or "cut out of the living rock." The geological formation of northern Yucatan and the natural formations of cenotes have been discussed in Chapter I.

The appearance of the Sacred Cenote in 1904 is well described in the field notes of Cole (1910), who was good enough to place them at my disposal. He writes:

> The impression, as one comes suddenly upon these deep "wells" in the middle of a dense forest, is a memorable one. They look like circular quarries, 150 feet or so in diameter. The sides are practically vertical, sometimes overhanging, with the trees hanging out over the space at the top and a few here and there where they can find a hold on the walls. In the bottom is water, which has a brownish green appearance apparently on account of organisms in it. . . . The walls are weathered unevenly, leaving holes of greater or less size in which live iguanas, and other lizards may often be seen clambering about over the rocky sides.

Another good description is given by Holmes (1895–97, p. 137). Charlot (in Morris, 1931, pl. 152,*d*) shows a fresco from the Temple of the Warriors of "a land-locked body of water." He writes (p. 409), "It occurs as an intriguing possibility that this may be a representation of the Sacred Cenote itself."

Shrine at the brink of the pool. "On the top close to the edge [of the cenote]," writes Landa (p. 183), "is a small building in which I found idols made in honor of all the principal buildings [24] of the country, almost like the Pantheon at Rome. I do not know whether this was an ancient idea or one of the people of the present time, so as to find their idols, when they went with offerings to that well."

This structure marks the end of the causeway. It is in such complete ruin that its former plan is most uncertain (fig. 705). E. H. Thompson notes that the walls show some carved stones which indicate that they were once used in another building. His measurements of the building give dimensions of about 21 feet long (outside) by 16 feet wide (inside the walls). It probably consisted of three small rooms. The one on the east, about 10 feet from wall center to wall center, is higher than the two others on the west. It seems to contain a circular opening with flues running from it. Maudslay (3:35) noted that it looked very much like an oven; Thompson, whose description does not accord with this, suggests that it may have been a large incense burner for use in the rites performed here. Now that sweat houses are being discovered in Maya ruins at Piedras Negras and at Chichen itself, this little building may well have been one where ceremonial purity was obtained, both by the priests and by the victims, before the sacrifice took place. It most certainly is a shrine of some sort. Some investigators have suggested that one of the rooms had a beehive type of vault.

Behind this room is evidence of two smaller apartments, 4 or 5 feet by 16 feet. In 1902 niches were reported in the walls which may have held, in Landa's time, those "idols in honor of all the principal buildings of the country, almost like the Pantheon of Rome" which he found there.[25]

4. RITES AT THE CENOTE

Early Accounts

We come next to the Maya and early Spanish accounts of the ritual practised at the Cenote. Unlike most archæological sites in the New World, Chichen has a relatively abundant literature, without which we would have little information on the ceremonial side of the life of the people other than that offered by the specimens recovered from the well. Accounts of the Cenote as a place of sacrifice date, with two exceptions, from the days during or immediately following the Spanish conquest (from about 1536 to 1588); most of them indicate that the ritual at the Cenote still flourished when the descriptions were written. The actual rites and the reasons for their celebration are the subject of Chapter VI.

Episode of Hunac Ceel (ca. 1451). At the end of Chichen III, during its occupation by the Itza, Hunac Ceel, the head chief of Mayapan, played the major role. His treachery toward Chac Xib Chac, the Chichen leader, was the cause of the downfall of the city, if we are to believe the early legends. It is with Hunac Ceel and his sacrifice at the Sacred Cenote that we are here concerned. This episode took place in a Tun 10 of Katun 8 Ahau (ca. 1451) and marks the first direct mention of the ritual at the Chichen Cenote.

The references to it from the Chumayel manuscript were given in Chapter II-5. "It was Cauich, Hunac Ceel . . . who put his head at the opening of the well," we read in the Chumayel. "Then he went to take it, then he came forth to declare the prophecy." Rain and the taking of the prophecy figure in the other early acounts of the cenote ritual.

Xiu Pilgrimage (1536). The earliest Spanish references to the Sacred Cenote at Chichen Itza are to an attempted native pilgrimage to supplicate the rain gods in a time of drought. This ended in a holocaust. Other Spanish accounts will be considered in the order of their importance. In spite of some repetition, most of the descriptions of the Cenote ritual will be given here *in extenso*.

Landa's Relación (ca. 1566). Landa was perhaps the most dramatic and the most important single figure connected with the early Spanish history of Yucatan. He was called the *historiador primordial* of this country. He was born "of noble parents" in Cifuentes, Toledo, in 1524. At the age of 16 he joined the Franciscan Order in his native town and was one of the first friars brought to Yucatan by Nicolas de Albalate, the Procurador, in 1549. At once his zeal was recognized and he held a long succession of offices in the Church, ending, after many vicissitudes, as Bishop. His work and methods of christianization have been variously estimated. He has been regarded "as a saint and an odious persecutor," as an impetuous and ardent servant of the Lord who won the approbation of the multitudes, and as a cruel zealot. He has been described as dying "in the odor of sanctity . . . and he is stigmatized as a fanatical, extravagant and cruel man." In some respects both extremes seem to be true. The *auto de fe* held by him at Mani in 1562 brought down upon his head the denunciation of Bishop Toral, and Landa was forced to return to Spain for examination where he was finally exonerated. It was while he was there that he probably wrote his famous *Relación de las Cosas de Yucatan* (1566). Returning to this country in 1573 as a Bishop, he died six years later in Merida, Yucatan.[26]

Probably the most important information conveyed by the Bishop are various entries regarding the Cenote of Sacrifice. One of these (Landa, 1941, p. 54) concerns the vain attempt of the Xiu to make a pilgrimage to the well. Three other entries are given here, although their content has been used in other parts of this Memoir.

> We will tell about the well into which they threw living men in sacrifice, as well as other beautiful things [p. 19].
>
> Sometimes they threw living victims into the well of Chichen Itza, believing that they would come out on the third day, although they never appeared again [p. 120].
>
> Into this well, they have had, and then had, the custom of throwing men alive as a sacrifice to the gods, in times of drought, and they believed that they did not die though they never saw them again. They also threw into it a great many other things, like precious stones and things which they prized. And so if this country had possessed gold, it would be this well that would have the greater part of it, so great was the devotion which the Indians showed for it [pp. 179–82].

Relacion of Valladolid (1579). Next in importance to Landa's references is the account of the ritual at the Cenote of Sacrifice given in the *Relación* de Valladolid:

> In this cenote the lords and important men of all these provinces of Valladolid were accustomed, having fasted for sixty days without raising their eyes in this time even to look upon their wives nor upon those who brought them food, and this they did as a preliminary to, upon reaching the mouth of that cenote, throwing into it at break of dawn some Indian women belonging to each of those lords, whom they had told to ask for a good year and all those things which seemed best to them (the lords). And thus these Indian women having been thrown in without being bound, but flung down as from a cliff, they fell into the water striking it with great force. And at exactly midday the one who was to come out shouted for them to throw her a rope to take her out, and when she came up above half dead, they made great fires around her, censing her with copal. And when she came to, she said that there were many of their race below, men as well as women, who received her, and that when she raised her head to look at some one of them, they gave her severe blows on the neck so that she would keep her head bowed down, all of which occurred within the water in which they say there were many hollows and holes. And they replied to her whether they would have a good or bad year according to the questions which the Indian woman put. And if the demon was angry with one of the lords of those who threw in the Indian women, they already knew that (her) not asking to be taken out on the point of noon was because he was angry with them, and such a one never came out. This seems a likeness to what happened in the cave of Salamanca. Then, having seen that she did not emerge, all that lord's people and he himself threw large stones into the water and with a great hue and cry took flight from there.[27]

Relacion of Tomas Lopez Medel (1612). Tomas Lopez Medel was a Franciscan, auditor and judge of the Audiencia of Guatemala and the Confines and, later, one of the judges to sit at the trial of Landa. He finally absolved Landa in regard to the inquisition inaugurated by him. His *Ordinances* were probably written about 1552; the *Relación* is dated 1612. The latter furnishes material on the victims offered at the well and discusses the sacrifice both for rain and for divination. His account of the ritual follows:

> Among other sacrifices which the devil had taught them in those provinces of Yucatan was one of which they made use in time of necessity, and when they were in need of rain for their maize, which sacrifice they made with the death and offering of one or two Indian virgins [*doncellas*] or the number they wished. In this way they chose the virgin as seemed best to them and they took her to Chichen Itza, where the lodging of all the lords was and where the priests were and the principal *cu* and place of sacrifice, and from there they all went in procession with her by a paved causeway, all of slabs, which came to an end at a large and deep cenote which was there. . . . And they placed her in a shrine which was near there, where the priests withdrew with her. And they instructed her and informed her concerning what she was to ask there from their demons and false gods. And they brought her forth from there, and having tied her with a long rope, they lowered her down to the depth of the water, ducking her many times until they drowned her, all the people charging her and asking her when they threw her in to be a good mediator with their false gods in order that they might send them rain. And in this manner the sacrifice was completed, leaving her drowned in the cenote. Some old Indians of that province affirmed that they sometimes saw in these sacrifices a fierce and frightful dragon, which they represented as a large crocodile, which came out upon those waters as if to receive that sacrifice which they sent him there. And, certainly, considering the nature of the place, nothing else can be thought except that that was some demon, because a crocodile or dragon could not live there, the nature of the water opposing it; nor has such a thing been seen in any of the other cenotes, nor do I believe it is possible there.[28]

Relación on Alonso Ponce by Antonio de Ciudad Real (1588). Antonio de Ciudad Real, the author of this report, came from Spain in 1573 as chorister with Fray Diego de Landa. He is supposed to have been the author of the Motul Maya Dictionary. He gives a short account of the rites at the Cenote, the most important feature of which is the fact that he writes in the past tense. In describing his visit to Tinum he states (Noyes, 1932; Tozzer, 1941, p. 183, note 956):

> The town is small, of people most devoted to our friars; there are, not far from it, in that *guardiania*, ancient stone buildings, very beautiful, that they call *Chicheniza*, and near them is a very deep well, into which they used to throw those sacrificed to the idols, and they even say that in the wall of this well or *zonote* there is a cave that reaches far within. These buildings lie in open country and pastures. . . . There is now in that place, and near those buildings, a cattle-ranch.

In the same *relación* Ciudad Real makes a casual reference to a cenote at Mayapan which was used as a place of sacrifice. After speaking of the very tall temple at this site, he continues: "On the top of this mound is a house of stone and mortar, vaulted, with certain small rooms, which the priest of the idols, they say, entered to pray. Near the foot of this same mound there is a

deep cenote with a very smooth stone on the edge of its mouth, from which (as they say) they used to throw those whom they sacrificed to their gods." [29]

Quijada Papers (1562). The first Spanish priests to arrive in Yucatan came as chaplains to the early conquistadors from 1517 to 1519. Montejo, accompanied by two members of the secular clergy, his own chaplain, a chaplain of the Armada, and a regular clergy, "took possession" of the country in 1527. It was not until 1535 that the first body of Franciscans, under Friar Jacobo de Testera, came, to remain more or less permanently. The final conquest of the peninsula was not accomplished until 1546. In the meantime small companies of friars came to Yucatan from Tabasco, Guatemala, Mexico, and Spain. In 1549 Landa arrived with five other priests. In 1560 Diego Quijada was appointed *Alcalde Mayor* and *Justicia Mayor*.

Churches and monasteries were being built. Landa explains (p. 73): "The plan which they adopted to teach the religious doctrines to the Indians, was to get together the little children of the lords and of the principal men of the place, and they established them around the monastery. . . . To these children were added those who came to the *Doctrina*, and as a result of this attendance, many of them asked for baptism with great devotion." We learn later that the children were taught to spy on their parents and to notify the priests of "acts of idolatry or drunken orgies." They also broke the idols "although they belonged to their own fathers."

The work of christianization was far from easy. In 1548 the Xiu, who had previously received the priests with great friendliness, turned against them. Some of the chiefs who had been refused baptism until they had freed their slaves plotted to burn the church at Oxkutzcab. Uprisings occurred; apostasy was common. The methods used to punish backsliding were both cruel and severe.

Here we are concerned only with the facts on the ancient religion brought out in the testimony offered at the *auto de fe* held by Landa at Mani on July 12, 1562, together with that regarding the inquisition and trial instituted in the former *cacicazgos* of Sotuta and Hocaba-Homun in August of the same year.[30]

There is a striking difference between the facts given by the main Spanish authorities and those in the testimony given at Sotuta and Hocaba-Homun in 1562. We must remember that Landa and Lopez were describing rituals which they had learned about as having been performed in earlier times by natives unaffected, to a great extent, by Christian teaching. The Sotuta and Hocaba-Homun evidence, on the other hand, was based upon current surreptitious practices performed by backsliding natives after they had been partially indoctrinated by Franciscan missionaries.

The testimony taken in these trials is of inestimable importance in the study of the religious practices of the natives; it complements and supplements in an amazing degree our knowledge of Maya religion as given by Landa. There is a reality and vividness about the Quijada material which is absent from the Bishop's report. The routine in gathering the evidence in the trials seems always to have been about the same: the name of the village of the witness, the time and place of the idolatrous practices, and the names of those present. The questions asked also served to bring out the name of the native priest (*ah kin*) or other persons who conducted the rite; the names of the persons present at the sacrifice; the name, the sex, and age of the individual sacrificed; the mode of death; the treatment of the heart; the final disposal of the body; the number, character, and name of the owner of the idols; the feasting; and the avowal of secrecy by the natives.

So circumstantial is the evidence given in these trials that statistical data can be assembled about many of the details of these human sacrifices (see Chapter VI).

Herrera's Historia General (1601–15). This important work by Antonio de Herrera y Tordesillas is of interest to us here as it follows Landa, in many places, in great detail and sometimes supplements the Bishop's account.[31]

Cenote Ritual

The Cenote cult and other aspects of human sacrifice are discussed at length in Chapter VI.

5. EXPLORATION OF THE CENOTE

The *Relación* of Landa gave the impetus for two attempts to dredge the famous well, for he observed (1941, p. 181): "They also threw into it a great many other things, like precious stones and things which they prized. And so if this country has possessed gold, it would be this well." The hope of verifying the Bishop's words was uppermost in the minds of those who planned the dredging of the well, along with the lure of finding some of those "things" which the Maya "prized."

Charnay's Attempt

Landa's account of the Cenote of Sacrifice, written about 1566 but first published in 1864, failed to arouse any of the early explorers to action until 1882, when Désiré Charnay visited Chichen. Of his unsuccessful attempt to dredge the sacred well he writes (1887, p. 358), "Aware of the treasures the cenote might contain, I had provided myself with two automatic Toselli sounding-machines, one of which is capable of bringing up half a cubit metre deposit; but unfortunately I could not get it to work, owing to the height of the walls, the depth of the water, and the enormous detritus of several centuries."

Thompson's Attempt

A second attempt, this time successful, was made to dredge the well by Edward H. Thompson, resident of Yucatan from 1885 to 1923. In 1894 he acquired the hacienda of Chichen Itza, a property previously owned by the historian Crescencio Carrillo y Ancona, Delia Morena Canton, Emilio Garcia Fajardo and Leopoldo Canton Frexes.

Thompson's first investigations at Chichen seem to have been the excavation of the High Priest's Grave. This was carried out under the direction of Professor F. W. Putnam for the Columbian Exposition in 1893, and the collection remained in Chicago at the Field Museum. At this time he also made molds of the Labna portal and one of the two at the Governor's House at Uxmal. These were erected on the grounds of the exposition near the Anthropological Building.

Thompson's most important and spectacular work was the dredging of the Sacred Cenote at Chichen. Stephen Salisbury of Worcester and Charles P. Bowditch of Boston [32] were the main instigators and most generous supporters of Thompson's

work, which was done almost exclusively under the private direction of Mr. Bowditch and of Professor F. W. Putnam, then Director of the Peabody Museum. With two exceptions, the result of all Thompson's explorations and excavations, consisting of objects, photographs, molds and other data, were presented to the Peabody Museum by Bowditch, and the greater part of his publications were brought out by the Museum.[33]

History of the exploration. After numerous negotiations and delays in obtaining the necessary machinery, dredging began on March 5, 1904. The first campaign ended July 1, 1907. Between these two dates the work was by no means continuous. During this time Thompson made at least two trips to the United States. Leon J. Cole and I were there in the 1904 season, together with the English artist, Miss Adela C. Breton, who made colored copies of some of the most perishable specimens. In the 1905 season, David Casares, a student of the Maya from Merida, visited Chichen and wrote the first serious account of the work, other than a notice by Mediz Bolio (1904). In 1906 Justo Sierra, the Mexican Secretary of Public Instruction, who was born in Yucatan; Leopoldo Batres, the Inspector General of Ruins; and Teobert Maler, the archæologist, who then lived in Merida, visited the ruins and saw the work at the Cenote.

On July 1, 1907, Thompson wrote to Bowditch, "The work on the Cenote is now finished." This, evidently, was not the case, for while Thompson was in Boston during the summer, another agreement was made with Bowditch running to March 1, 1908. This was evidently extended as the result of a visit to Boston in the summer of this year, for the next May (1909) Thompson writes, "My cenote work this year has been of surpassing interest. I have not, of course, secured specimens that approached anywhere near in importance those hitherto secured, but the interest lies in the fact that I have at last personally trod the bottom of the cenote, have put my hands on the very floor of the cenote in the pits made by the dredge." Still another agreement was made between Bowditch and Thompson on November 15, 1909. There is little information on the work carried out during this period.

In 1910 Thompson proposed going to Mexico to obtain the required permission to finish the work of dredging the distant portions of the Cenote. He continues, "I will then rig up the dredge, put it in shape and go to work." This trip was never made. The last available letter to Bowditch was dated September 4, 1912.[34]

The end of 1909 seems to have terminated the exploration of the well so far as Bowditch was concerned. Up to this time all of the objects recovered from the Cenote were presented to the Peabody Museum by him. In 1910–11 Thompson worked at the Cenote on funds furnished by his friend Walter Austin. The objects obtained during this campaign were bought from Austin by Dr. Charles Peabody, who gave them to the Museum.

On May 18, 1935, Thompson died at the age of 75 at the home of his eldest son at Plainfield, New Jersey. I wrote at that time: "He was the friend of all the early investigators in Yucatan and his ownership of (the hacienda of) Chichen Itza made him a well-known figure to all Maya students. He was American Consul in Yucatan for almost twenty-five years, combining these services with archæological investigations. . . . The remarkable collection of objects dredged from the Cenote of Sacrifice at Chichen, now at the Peabody Museum, will always remain a monument to his indefatigable zeal and to his desire to preserve for all time something of the life of the Mayas whom he loved." Other than obtaining a living for himself and his family, Thompson never profited personally from his archæological work. He was completely selfless and there is no question but that his long-continued and strenuous activities in the field shortened his life.

Methods used in dredging the Cenote. Leon J. Cole, then a graduate student in biology at Harvard University, was present at the beginning of the operations. His notes, kindly made available by him, state:

> On February 26, 1904, the road was cleared to the cenote and a rope ladder was made for getting down to the level of the water, where a platform was built, and a raft was constructed and launched from the small beach on the west side of the pool. [The Cenote, the remains of the shrine, and the derrick and dredge set up on the south end of the pool are shown in fig. 705.]
>
> Just east of the ruined structure on the southern edge of the well, a place was cleared of debris and a stiff-legged derrick erected, having a twenty-foot upright and a boom, thirty feet in length. This was operated by a double-handed winch, two or four men working it. The dredge was a Harwood orange-peel bucket of a capacity of two and a half cubic feet. Around the perimeter of the pool a series of numbered stations was established and a divided arc at the foot of the derrick corresponded to these stations. Dredging was first started in the radius allowed by the thirty-foot boom. To reach outside of this sector, a rope was attached to the top of the dredge, and this ran around a pulley in one of the numbered stations on the perimeter of the pool on the opposite side of the cenote, and ended at the base of operations. By using this rope the dredge could be pulled to any place between the home station and that opposite. By changing the position of the pulley the dredging could theoretically reach anywhere within the well. As a matter of fact, Thompson argued that all the various offerings were probably thrown into the pool from the place where the derrick was erected, to the east of the "shrine."

One of Cole's favorite stories concerned his making a dummy of the shape and the average weight of a human body, and noting how far into the pool he could throw it. Only an area with a radius of about thirty feet from the dredge was actually covered by the operations. This was, of course, only a very small part of the expanse of the well.

The dredge was first operated March 5, 1904. On March 10 the Cole diary reads:

> They made ten hauls in the morning and six or eight in the afternoon. In the fifth haul in the morning Rafael found a human humerus and, in the next, what appeared to be a finger bone. . . . March 11. During the day the dredge brought up a number of bones. . . . Also several pieces of pottery. These things came from nearly fourteen feet down in the mud (so the mechanic in charge told me).
>
> The first pieces of copal incense arrived on March 12. Wooden objects soon put in an appearance. The first piece of jade, a round bead, came up on the 19th. It was not until May 28 that any metal was recovered. On this date two copper bells appeared. Up to June 1, practically no stone objects were encountered. It was not until early November that jade and pottery objects came out in any quantities. The next month marked the appearance of the first gold specimens other than a small gold mask on a wooden scepter which had come up some time before.

It was not until the next year that metal objects appeared in any numbers.

By means of a rough boat, many light objects, especially the balls of copal, were recovered; removed from the mud by the dredge, they usually floated on the surface of the water.

The dredge would be brought up and swung over the land. All large objects and many of the smaller ones were removed before the dredge was opened. The remainder, freed by opening the dredge, were allowed to fall in a pile. This was gone over carefully for smaller objects but, unfortunately, only a portion of this debris was sifted either when it was wet or after it had dried. The objects were usually washed in clear water to free them from the mud immediately after removal from the dredge. The wooden material was kept wet by immersion in water.

It was soon found that no possibility of stratification could be noted as the heavier objects had sunk to the lower levels when they were thrown in.

It should be admitted that the nature of the operations precluded the possibility of the care usually taken in the excavation of a terrestrial site. By ordinary archæological standards, the work could not be considered either exhaustive or complete. There is every reason to suppose that the well, and even the debris, still contains objects of archæological interest.[35]

In a letter to Thompson dated September 20, 1905, Bowditch proposed an engine to operate the winch. This was tried, and in the following March, Thompson reported:

> I have had to abandon the use of the engine and for a cause that I do not think anyone could imagine or foresee. To explain, the wall surface of the whole cenote is built up of consecutive layers of rock of varying degrees of hardness, separated by thick layers of a finely divided flour-like substance, called by the natives, *"kut"*. . . . The trepidation of the engine and the trembling force of the rapidly up-rising heavily laden bucket, caused such a downpour of this substance . . . that the whole water surface of the cenote became of a milky color and finally pieces of the ledge itself . . . commenced to fall.

A coffer-dam was suggested as a possible means of working the fertile zone near the shrine without the water hazard. This was declared impractical as the sides and bottom of the cenote are porous and it would have been found most difficult if not impossible to keep the portion protected by the dam free from water. Pumping the well dry was practically hopeless for the same reasons.

As early as December 1905 Thompson wrote, "I think that when I do commence work I shall decide to use the diving outfit. I shall, however, meanwhile prove the outfit practically and can then determine definitely." There is no further reference to making use of diving during this first campaign ending in 1907. It was in May 1909 that the quotation regarding diving operations is found; in the final agreement of November 1909 Bowditch refers to diving for the first time in the correspondence now available and states that Thompson "will make the exploration of the cenote with a diver's apparatus to be furnished by him, and that he will superintend the work in person." It seems quite evident that the work done by means of diving yielded very meager results as, in 1910, Thompson suggests rigging up the dredge again.

It spite of a difficult terrain and with techniques which today would seem crude, this accomplishment, started 50 years ago, was of the greatest consequence.

Last Attempt

As Resident Inspector of the ruins from 1935 to 1941, Manuel Cirerol Sansores made, in 1935, an elaborate study of the Cenote and advanced a project to explore the well by draining it. This "although approved was never realized." He worked over the mass of debris, "tons of loose earth," dredged from the well by Thompson, and finally found near the bottom of the pile "a beautiful golden frog" now in the Archæological Museum at Merida.

6. APPROACH TO THE STUDY OF THE CENOTE COLLECTION

Unique character of the collection. There are three aspects of the Cenote material which give it unique significance in archæological study. First, the objects were offered to the gods of rain by a native population in elaborate religious rites that are explained by an abundant literature. Second, these objects thrown into the huge sinkhole represent a great span both in time and in area. This is particularly true of the jades; the metals come all the way from Guerrero and Oaxaca in the north, to British Honduras and Honduras, southward to Veraguas and Cocle in Panama, and even to Colombia in South America. Third, the objects preserved here under water are of perishable material that usually survives only at archæological sites in arid countries. There is perhaps no other single collection in New World archæology that has afforded so comprehensive a view of the æsthetic life of an ancient people. The amount and diversity of the articles are evidence of the Cenote's importance in the religion of the Maya toward the end of their existence as an independent people untouched by European culture.

Historical and cultural aspects of the collection. The wide variety of objects recovered from the sacred well raises many questions as to their background and history in point of time and culture. The collection will be examined here not so much for the intrinsic importance of individual specimens as for their cultural, stylistic, chronological, and technological implications.

In most respects the general nature of the collection points to a comparatively late period in the history of the Maya. There are two exceptions to this statement. The greater part of the beads and breast ornaments of carved jade seem clearly to date from the Late Classic period. Most of the pieces were probably heirlooms, handed down from generation to generation, starting their travel northward from Guatemala perhaps before the end of the 10th century. A few jades which show a Mexican influence date from Maya-Toltec times, Chichen II or III. The other exception relates to the metal objects. Coming into Middle America from the southern continent, knowledge of working metals reached the Maya late in their history. There are no metal objects definitely known to date from pre-Toltec or pre-Classic times. The Maya figures on the gold disks derive their inspiration mostly from the Usumacinta River sites in Late Classic times. The gilded copper objects are much later, and seem to belong to late Chichen. "Aztec products are represented in the Cenote collection by bells, notably by the wire-like bells made of a copper-lead alloy" (see Lothrop, 1952, *passim*).

Verification of Landa. Landa's report not only fills out the picture at almost every turn, but inspired the dredging of the pool, an operation that has verified his observation on what the well contained in every respect except one. The country did have gold, brought in by trade, however, in the form of bells, amulets, and plates; much of it seems to have found its way into the natural reservoir at Chichen Itza.

Preservation in the water. Metal, pottery, jade and other stone artifacts have, of course, been found in many other parts of the Maya area, but very seldom have archæological investigations in Middle America encountered wooden objects, textiles, gourd and other vegetal remains. Their survival in the Cenote is due, of course, to the fact that they have been under water since they left the hands of the donors making sacrifice to the gods of rain.

The carbonization of some of the material by fire was probably another aid to their preservation. Archæologists are too prone to think in terms of stone and pottery. Here, however, we have an almost complete picture of the material aspects of the religious life of the people.

A further point in the preservation of the Cenote objects is the fact that material was enclosed in the masses of copal. The vegetal remains in the center of the balls of incense were undoubtedly protected by the gum.

Treatment of the specimens. Immediately after their removal from the dredge, the objects were usually washed in clear water. On exposure to the air, some of the specimens turned black. A white coating often appeared on the dry surface, the decomposed limestone no longer being held in suspension in the water. Usually it was easy to remove this, but on some of the stone objects it formed a sort of patina.

Wooden objects. The first specimens of this type were carelessly allowed to dry, and they subsequently shrank to almost nothing, as the organic matter had long since disappeared. As soon as this disaster was noted, all wooden specimens and gourds were kept moist; they were wrapped in cotton and sent north sealed in tin receptacles filled with water.

"The purpose of subsequent treatment," writes Charles C. Willoughby (1908, p. 348), "is to replace the water in the specimen with a non-volatile rigid substance which will prevent contraction." From methods suggested by the treatment of fragile zoological specimens, Willoughby put these delicate objects through a series of baths. They were immersed in three or four solutions of alcohol and water, the first being about 25 per cent, then 50, 75, and finally 95 per cent concentration of alcohol. The specimen was then soaked at two different times in xylol (xylene), a coal-tar preparation. Finally, the object was suspended in melted paraffin, which, after a few days, was removed by benzine. The specimen was thus permanently preserved.

Textiles. These came up in the dredge almost entirely in comparatively small pieces and in a most fragile state. Some were sent north sealed in glass jars; some were mounted at once between glass plates; most were transported after they had dried.

Presence of fire. In spite of the large mass of unburned incense that remained, undoubtedly an extensive offering of burning copal and rubber had been made at the time of the sacrifice. Evidence of fire is constantly found; obsidian beads melted like glass, and the intense heat of the copal melted even the jade, which was seen in all stages of calcination. Metal objects also show the devastating effects of fire; many pieces have been distorted by the heat, and parts of others are melted completely away. The black smoke of the incense often covers the metal and jades with a deep patina.

"Killing" of the offering. The practice of partially or wholly destroying or injuring objects offered to the gods before they are placed in graves with the dead is well known. Knocking a hole in the bottom of a dish or pot is the most common method. At the Cenote of Sacrifice the custom was extended to many of the objects thrown into the well. An enormous quantity of small jade fragments bear witness to this practice. Countless hours of labor have been spent fitting the worked pieces together. Numerous pieces missing from most of the jade plaques show what must still remain in the well.

Intentional destruction is seen on most of the metal objects. Only one large gold disk came out intact; all the others were bent and many pieces are still missing. Less than half of Disk A, for example, was recovered. There may have been a change in custom because most of the copper disks, undoubtedly manufactured later than the gold ones, did not on the whole suffer mutilation. Some of the gold bells were smashed in as if hit by a severe blow. Possibly the pebble inside was removed so that the bell lost its ring. Although most of the copper bells were not injured, few retained their clappers.

Unfortunately, we have no pictures of the actual immolation of victims in a cenote. The only kind of human sacrifice illustrated in fresco, stone, and metal is that whereby the victim is thrown on his back and his heart is cut out.

Despite a certain amount of duplication, let us review the objects of sacrifice with particular reference to the conditions in which they were found.

Objects of sacrifice to the gods. *Human beings.* Landa's references to the custom of throwing living human beings into the Cenote as a sacrifice in times of drought have been mentioned above. The human remains are described in detail by Hooton (1940) and briefly discussed here with regard to age and sex. Among the items of sacrifice are a necklace of human teeth and a carved human bone.

Metal objects. The variety of metal objects (fully covered by Lothrop, 1952) is great. The two main classes are sheet metal in gold and gilded copper, and cast objects mostly of gold and copper in varying proportions. An important aspect of the Cenote study was the determination of the origins of these objects by analyzing them and comparing them with specimens of known provenience. This work was inaugurated in 1927, at my suggestion, by W. C. Root, working under the direction of Gregory Baxter of the Harvard Department of Chemistry.

Copal and rubber. The burning of incense, consisting of copal and rubber, as part of the sacrifice to the gods has been frequently mentioned. Large unburned masses of the gum, often containing balls of rubber, were rescued from the Cenote. In some cases chicle and other vegetal material were in the center of the copal. These masses of pitch were often incrusted with crude pieces of jade and were usually contained in a pottery dish, the vessel as well as the gum being painted blue. Also recovered from the Cenote were miniature human figures of either copal or copal and rubber and others modeled in the gum over a wooden armature. A few animal figures of rubber with or without copal appear in the collection.

Jade.[36] It is probably no longer necessary to point out that the jade or, more correctly, jadeite in the New World has a different mineralogical content from that found in Asia and Europe. Jade has also been found in crude form in Central America.

Jade offerings rank in bulk next to copal. The most important pieces were tablets and pectorals or breast ornaments, carved in high and low relief. Human figures and human heads in the round come next, followed by serpents, mask designs in silhouette, earplugs, buttons, and flat circular rings. Beads compose the most numerous items: round beads of all sizes, both carved and plain; tubular beads of square and round cross-section, some of which were carved only on one end; and beads cut and made into a carved amulet. The necklaces often represented on the human figures on the stone façades or on the early stelae, either in the round or in bas-relief, especially those from Copan, can often be duplicated in the jade beads and breast ornaments from the well. With some exceptions, the designs stem from the Great period of Maya art. Most of the amulets seem to have been "killed" or broken before being cast into the well. This jade probably came from the Usumacinta and was worked in the Late Classic period. A few Mexican carved jades of a later date also appear.

This collection furnishes an excellent opportunity to study the processes used in cutting and fashioning this hard stone.

Wooden objects. Ceremonial articles of wood were not uncommon. Among these were ornamented *atlatls,* some carved, some painted; aspergilla or sprinklers, mentioned by Landa; rattles; and a carved wooden handle for a flint knife for sacrifice. Spears, weaving tools, spindle weights, labrets, and parts of headdresses also appear. Manikins of wood covered with copal and rubber have been mentioned above.

Mosaics. Although objects of this kind would obviously suffer from long immersion in the well, small bits of turquoise or jade have remained on a few wooden objects. These include two "sceptres"—one evidently with a mosaic face and one with a gold mask and mosaic on the headdress—a wooden rattle, and incrustations on an imitation animal tooth.

Ceramics. The pottery recovered from the well dates from both the Late Classic (Puuc) and the Mexican stages here (see also Chapter III-11). Both are characterized by Medium Paste Slateware. Fine Slate and Polished Orange are from the earlier period; grater bowls belong in the Early Mexican. Brainerd (1948) writes: "The Early Mexican and the Classic deposits are composed of utilitarian, not ceremonial pottery. . . . This suggests that the deposit comes from the use of the cenote as a water source rather than as a ceremonial center. Ceramics of the Late Mexican period, such as Figurine Incensarios, are mixed with the Early Mexican-Classic deposit." He concludes that the use of the Cenote for ceremonial purposes, marked by Coarse Redware (Vaillant's Red Lacquer) and Mayapan Fine Orange, came late. This would be in accord with the estimate of the beginning of the ritual already outlined.

The most common pottery in the Cenote collection is the bowls of Coarse Paste Red, each of which usually contained a mass of unburned copal. Sometimes crude pieces of jade decorated the top. Many bowls were painted blue.

Among Early Mexican types from the well are incense burners with perforated body, Medium Paste Slateware graters, and an incised Medium Paste Redware jar.

The trade pieces include sherds with a plaster coating on which is painted a design in polychrome, somewhat similar to that noted in the codices. There is also a cloisonné type wherein the entire jar was painted black and the design then cut away and filled in with color, thus forming the pattern between "fences" of black. Perforated Mixtec braziers are noted.

Some very late incense burners resemble those from Tabasco, Mayapan, and eastern Yucatan. A few are very similar to the modern Lacandon type.

Textiles. These are of supreme importance as, almost miraculously preserved by being under water, they are practically the only evidence of this art among the ancient Maya other than the designs on the sculptures showing woven material.[27] The color has disappeared but the techniques can easily be made out.

Joy Mahler, who is making a study of these textiles, has kindly furnished me with the following statement:

> The Cenote textiles are the only series of pre-Spanish fabrics which have survived in the Maya area. As such, they are a unique and extremely important source of our only technical information on fibers and weaving of the region.
>
> Over 600 fragments have been preserved. This relatively large number is perhaps misleading, as one might expect to amass considerably more information than was possible. Unfortunately all the pieces are small, none measuring more than 10 inches, and several hundred are less than 1 inch square. Obviously many of these must have appertained to larger cloths, but the conditions existing in the well had so decomposed the fibers that dredging and subsequent treatment for preservation caused inevitable further breakage and tearing. Thus no original loom dimensions can be determined, and there is absolutely no indication of former function as garments or wrappings. It is even impossible, except in the rarest of instances, to prove that some fragments are actually parts of one cloth. Finally, no trace of dyes remain in these black, carbonized, and delicate specimens.
>
> These textiles do, however, present a homogeneous lot, with a variety of weaving techniques and some indication of geometric designs. With four exceptions, all are of cotton yarn, almost exclusively single Z-spun or 2-ply Z-spun S-doubled yarn. These exceptions contain structural fibers, possibly a species of *Agave,* and unidentifiable bast fibers. The weaving techniques are numerous. Although the bulk of the material consists of plain weaves, either with single warps and wefts or single warps and paired wefts, the total range includes brocades or embroideries, pile cloth, gauze, warp-float patterns, kelim tapestry, openwork, and twills. Others, on the basis of variation in yarn of either or both warp and weft, have been classified as warp stripes, weft stripes, or plaids. This enumeration of techniques suggests an approximation to the complex weaving of Peru.

Stone objects. Other than jade, there are few stone specimens in the collection. Some pieces of a straight-sided alabaster vase and stone dart and spear points appear. Often the butt ends of these show the evidence of having been imbedded in rubber. Bits of iron pyrites, probably part of a mirror, should be included here.

Obsidian. In general, this is found in the form of tubular beads, some plain and others carved in a ropelike design. Many of these show the effects of heat.

Miscellaneous objects. Some shell beads, a few bone awls, some pieces of painted gourds, and spindle weights of wood and of clay complete the collection.

VI

SACRIFICE AND ITS RITUALS

After a preliminary section on the Cenote cult as seen at Chichen and at other sites, we next make a broader approach to human sacrifice in many of its aspects.[1]

1. THE CENOTE CULT

Up to a comparatively short time ago, it was commonly believed that the ritual of sacrifice at the brink of a cenote occurred only at the celebrated "sacred well" at Chichen Itza, an opinion based on five 16th-century authorities and possibly an earlier one. With the publication in 1938 of the Quijada Papers (1561–65) by Scholes and Adams, our information regarding ceremonies at cenotes increased considerably. These papers of the *Alcalde Mayor* are an all-important contribution to the whole subject of idolatry in Yucatan and, especially, its resurgence at the time of Landa's first residence in the country. The evidence at the trials of the "culprits" makes it very clear that a religious cult in Yucatan in the 1560's centered around cenotes, both those with and those without water.

Number Sacrificed

The Sotuta and Hocaba-Homun testimony of 1562 (Scholes and Adams, 1938, XII, XIV) describes 89 sacrifices of 168 individuals. Of these ceremonies, 62 (69.6 per cent) took place at one of 16 Yucatan cenotes; that is, 122 people (72.6 per cent) were sacrificed here.

Location of Cenotes or Their Substitute Used for Sacrifice

Yucatan. It must be remembered that the evidence on which these statistics are based was gathered in central Yucatan where Sotuta and Hocaba-Homun districts are located, and it is natural to find that most of the cenotes mentioned are in this vicinity. Thirteen sacrifices were held at the Tabi Cenote southeast of Sotuta, four at Suitunchen, three at Yaxcaba, and four at Sahcaba. At six sacrifices at Chichen Itza 14 people were killed. The same ritual was carried out at Kanchunup near Sotuta and Akula in the region of Tibolon. Other cenotes used as places of sacrifice were at or near Tixpayan (Oxkutzcab), Tahdzibichen, Tepopox, Çamula, Tibacal, Katmun, Tekon, Bolonicxan and Mayapan.

Other evidence comes from entries in the Books of Chilam Balam, especially those dealing with the prophecies. Barrera Vasquez and Rendón (1948) write: "The human sacrifices consisted of throwing young persons into cenotes, lakes, and salt marshes. They threw them into the sea from ocean sanctuaries where they were devoured by the very malignant shark and the very dangerous crocodile. Sacrifices were made by choking. And often the mode of the sacrifice was not specified, such as the killing of infants to feed the *Hapai Can.*"

Mayapan. Among the many cenotes at this site, that of X-Coton is of special importance (R. E. Smith, 1953). It is essentially a dry cenote, but at the bottom are artificial steps leading down to a small pool of water. There is a central platform, presumably for sacrifice, but probably bodies were not thrown from this into the water below. There were two niches in the cenote wall, in one of which were remains of *incensarios* and a crude stone idol. Two of the four caves running from the main opening contained burials.

Of the 12,530 sherds recovered from the cenote, 67 per cent were typical of Mayapan in its main period. It is probable that the rites performed here date from the same late era.

Guatemala. Incense burners found beside lakes, as at Amatitlan, seem to presuppose the burning of copal in supplication to deities associated with streams and lakes.

Chiapas. The same cult also, it can be inferred, was carried out in Mexico. Stirling (1947) writes of a "limestone sink or cenote" in western Chiapas where pottery was found, and a cave in the same vicinity where jade beads and pottery seem to have been offered.

Mexico. On "a sierra at all times covered with snow" in the Valley of Mexico, called Chinaquitecatl, meaning "9 mountains," about five leagues north of Texcaltitlan, there are two lakes, one very clear and the other full of black water. Here "in their paganism, it is said, they made sacrifices" (Paso y Troncoso, 1905–06, 7:22–23).

Various Aztec rituals connected with the Tlalocs have many similarities with the celebration at cenotes, especially the sacred well at Chichen.

Colombia. Lothrop (1952, p. 106) writes: "The closest parallel to the Cenote cult seems to have existed in Chibchan territory in Colombia where pilgrimages were made to five sacred lakes . . . and offerings of gold ornaments and emeralds were cast into the waters. . . . there is no record of human victims being offered to the deities dwelling in the lakes as was done at the Cenote." He cites Peru as a place where pilgrims deposited rich gifts in the temples and oracles.

Peru. Toribio Mejia Xesspe of Lima kindly furnished to Lothrop the following data on possible parallels of the cenote rite: "It is the custom of the ancient Peruvian to offer metal objects to wells which are more or less similar to the Cenote." There is also the custom of offering small figures of gold and silver in the form of men, animals, and various foods in the tanks or artificial lakes near the *adoratorios* on the coast (Pachacamac, etc.), and also in natural lakes in the sierra near the temples of Pakarinas. In Inca times the "Kapak-Kocha" or "Tanks or Sacred Reservoirs" were "Cenotes Simbólicos."

2. CENOTE RITUAL AT CHICHEN

Of all the sacrifices, just enumerated, at the 16 or 17 cenotes, those at Chichen stand out as unique. According to the Sotuta-Homun testimony, only at this site were the victims thrown in while still living. This, of course, confirms Landa's account. Even at Chichen, according to the 1562 witnesses, only nine men at this time seem to have been actually drowned in the pool. At three other sacrifices here five men were put to death, their hearts extracted, and their dead bodies thrown into the cenote. The early literary sources offer us a fairly complete picture of the ritual which probably took place at Chichen.

It should be pointed out that although a rain cult probably

existed from early times, this may have been something quite different from the rain ceremonies connected with the cenotes. In the discussion of the pantheon, we saw that Tlaloc or Tlalocs, the rain gods, seem to date back to the Classic period in the Maya area and continue among the Quiche and Aztec. Representations of this deity can be seen at other early sites (fig. 206) and many other places.

Date of the Rites

With one exception, the Spanish accounts of rituals at the Chichen cenote cover only a very short time—from 1536, the Xiu pilgrimage, to 1588. That of Ciudad Real of 1588 is written in the past tense as if the ritual was over.

There is little question but that the beginnings of these ceremonies at the cenotes for rain do not go back to the Great period of Maya culture, which ended in Yucatan about the year 1000. Until recently it was commonly thought that the ritual connected with the sacred wells was brought into the country along with other types of human sacrifice and idolatry by Quetzalcoatl and his followers about the year 1000, the beginning of Tula-Toltec Chichen and the Itza.

The theory suggested here places the Itza and a Quetzalcoatl or Kukulcan II at Chichen sometime after the beginning of the first quarter of the 13th century, in a period called Late Mexican or Chichen III. Idolatry would seem to come in then along with the Itza and Kukulcan II.

Late ceramics. The dating of the rites is now aided by pottery. From a preliminary examination of the pottery recovered from the Cenote, along with an earlier study of Chichen Itza ceramics by Vaillant and Roberts, Brainerd would place the rites at the well much later than the year 1000. He believes the Cenote wares can be divided into two groups. The first, 60.3 per cent, dates from the Early Mexican and the Puuc periods, is characterized by Medium Paste Slateware, and is composed of utilitarian, not ceremonial, vessels. At this period he suggests that the Cenote was used as a source for water. The second class of wares, 28.1 per cent, belongs to the Late Mexican period and contains a disproportionately large number of ceremonial pieces. "The conclusion," writes Brainerd, "is that the Sacred Cenote was used entirely or at least mainly for ceremonial purposes rather than a miscellaneous dump during Late Mexican times."

Contents of the Sacred Cenote. Except for many of the beads and carved pieces of jade, most of the objects date from post-Classic times. Apart from the gold disks and bells, the time of the manufacture of most of the other objects would, in most cases, correspond to Chichen III, as is evident in the general run of the ceramics, the use of copal, and the work in mosaics and wood. Some of these objects undoubtedly are contemporaneous with Aztec times.

Droughts. Chichen III was a time of tribulation for the Itza. There were droughts, storms, epidemics, and civil wars. The Tun prophecies of the Tizimin and Mani manuscripts give an extended account of an especially grave drought in Katun 5 Ahau which probably ran from 1342 to 1362.

In the prophecy in the Chumayel there was a drought and famine in Katun 10 Ahau (1421–61), which was the one immediately preceding that when Hunac Ceel "despoiled" Chichen.

In Katun 8 Ahau (Roys, 1933, p. 76; 1949) we read, "That which came was a drought . . . when the hoofs of the animals burned, when the seashore burned, a sea of misery."

8 Ahau and Hunac Ceel. In this account is a long statement regarding "the prophecy of this ruler." It tells how this head chief of Mayapan and the conqueror of Chichen cast himself into the Cenote in order to obtain the prophecy. This was in Katun 8 Ahau which ran from 1441 to 1461 and which was the first in the history of Chichen IV, our Period of Dissolution.

As for the actual beginning of the cenote ritual, it may have been as early as Katun 5 Ahau (1342–62), when a drought occurred.

Droughts in Katun 10 Ahau and another in the following 8 Ahau have been mentioned, but the later calamity is distinctly linked with Hunac Ceel and his "sacrifice" in a Tun 10 of a Katun 8 Ahau, which would be about 1451.

Additional factors point to a late date for the Yucatan ceremonials. Several of the stones used in building the shrine at the edge of the well show unrelated bits of carving. This would suggest that these blocks came from an earlier building and that the present ruined structure dated perhaps after the main building activity at the site was a thing of the past.[2]

That a similar ceremony persisted among the Aztec and in other places is further evidence of the comparatively tardy appearance of the ritual.

Survivals. In spite of the fact that the Ciudad Real (1588) account of the cenote ritual was written in the past tense, rain rites, often in association with cenotes, persist in eastern Yucatan. The Maya still burn incense to the gods of the wind; the Lacandon not only offer copal to their idols but make some of it into exactly the same shape as that found in the balls of incense recovered from the Cenote. They still make pilgrimages to the ruined sites which abound in their country, and it seems clear that cenotes are part of their religious heritage.

There is stronger evidence that the idea of a Cenote cult lingers on as, among the present Maya, three cenotes are mentioned in connection with an offering of *zaca* (*sacah*), a preparation of maize, to the gods by the *h-men* or priest of the Cha Chac rite in behalf of rain.[3]

Purpose

There seems little doubt that there were two main purposes of the ancient Cenote ritual: the first was intercession for rain, the second was divination of future crops.

Desire for rain. In 1536, the Xiu pilgrimage was an attempt to worship at Chichen in order to bring rain when "a famine fell upon them and they were reduced to eating the bark of trees." Landa (1941, p. 180) notes that the natives made a sacrifice at Chichen in times of drought. The desire for rain again appears in the account of a rite in a cenote of Tixpayan (Scholes and Adams, 1938, p. 89): "And they made them [the idols of the gods] that sacrifice in order to be provided with sustenance and good rainy spells and because of some days it had not rained and the *milpas* were drying up." (Hereinafter all citations to this source refer to volume 1 unless otherwise indicated).

A request for rain is implied in some of the prayers to the gods recorded in the 1562 testimony of "idolatrous practices." One (*ibid.*, p. 115) runs, "Lord god all powerful, provide us with what we need and give us water and that which is necessary for our sustenance"; a second asks "for good rainy seasons"; and a third (*ibid.*, p. 123) desires "life and temporal goods."

Later, it will be seen that the custom of crucifying the victims before throwing them into a cenote shows a connection between this type of sacrifice, the rain gods, and the Cenote cult.

Rain gods. Landa (p. 184) records: "And they thought them [the gods] to be angry when they suffered the extremities of pestilences or quarrels, or droughts or other similar necessities." Precautions against dry weather were directed mainly to the gods of rain.

These fertility and agricultural deities were usually found in sets of four. The first group were the *Chacs,* who correspond to the *Tlalocs* of Mexico. With them were affiliated the *Bacabs,* the "sky-bearers," whom we have noted forming the upper design on many of the Chichen columns; the *Pauahtuns,* the wind gods; and the *Uayeyabs,* the gods of the last five days of the year. Each member of these groups of four was assigned to a cardinal point, and was also distinguished by a special color. The red *Chac,* for example, governed the east (*likin*); the white, the north (*xaman*); the black, the west (*chikin*); and the yellow, the south (*nohol*). The cardinal points are also associated with four trees, known as the red, white, black, and yellow *imixche,* on each of which was perched a bird. There was a fifth tree in the center, called *yaxcheilcab,* "the first tree of the world."

The four *Chacs* were invoked in various rituals, that of the New Year being, perhaps, the most important. In those years, beginning with the days Muluc or Ix, there were ceremonies in honor of the *Chacs* as gods of rain and of agriculture. They were also appealed to in the rites of the renovation of the temple, and at the renewal of the idols and braziers, possibly symbolic of the new vegetation. In the months Mac and Pax the ritual of *Tupp Kak* ("to put out the fire") was also celebrated in behalf of the *Chacs* in their double capacity as gods of rain and of grain.

Roys (1949, p. 160) in describing the contents of the Tun Prophecies in the Tizimin and Mani manuscripts writes: "The Chacs, or rain gods, are sometimes represented here as giants standing erect at the muddy ponds or depleted reservoirs in times of drought, when they were unable to fill their jars to water the parched earth. We read also of Ah Siyahtun-Chac. It is a new name, but it means the same as that of Ah Ch'ibaltun-Chaacob ('Chacs of all generations'), who are still worshipped by the modern Indians."[4]

Itzamna. This sky god was closely associated in the Maya rituals with rain. He figured in the *Tupp Kak* rite just mentioned.[5]

Ritual of the covered wells. In the testimony given at Sotuta (Scholes and Adams, 1938, p. 100) there is an account of another ceremony for rain:

> They brought from the bush four idols, which they carried to the church and they also took wine of Castile mixed with honey and water and offered the wine to the idols and after they had offered the wine and made a prayer to the idols, they had the wells of the pueblo covered in reverence and ritual for the idols in the manner of a fast so that the idols would provide them with water for the milpas.

Christian cross. Another rite, seemingly for rain, and described by a witness in Homun (*ibid.*, p. 152) is especially interesting as it is to the Christian "God and his crosses" and celebrated "in memory of their demons and idols because they used the ancient ceremonies." We are informed:

> They made a certain sacrifice in the church in the ancient manner of their customs and at the feet of the crosses which are around the church and they lighted fires and candles and offered foods and beverages (and) even though the assertion of the people was that they offered it to God and to his crosses because it did not rain, the witness says that he understood they did it in memory of their demons and idols because they used the ancient ceremonies. They wreathed the church with leaves of a tree which is called *copo.*

Among the postconquest gods, the cross is considered as a water deity personified as *Ca Yum Santa Cruz,* "Our Lord, The Holy Cross," or as *Yax Cheel Cab,* "the first tree of the world." We have seen that the latter refers to the ceiba (*Ceiba pentandra* Linn.).

Sacrifice of a dog. We also learn in this same testimony (*ibid.*, p. 108): "And they made this sacrifice (a dog and other animals) because of a lack of rain and they asked for it in this sacrifice that the *milpas* might be nourished."[6]

Intercession. According to the Lopez Medel account, the victim of sacrifice, before being thrown into the well, was told what to ask for; they charged her "to be a good mediator." The same friar describes a sacrifice at Chichen which came out quite otherwise than planned (Tozzer, 1941, p. 223):

> While I was in that province [1552] during my inspection (*visita*) of it, looking at the said buildings of Chichen Itza, which surely are worth seeing, the aged and old men of that place related to me an amusing incident which happened in their time and a little before the Spaniards entered for the conquest of that land. And it was that, holding a virgin for the sacrifice in the said way and the priest telling her what we said above and telling her to ask their gods there to send them good times, she replied that she would not say any such thing, rather she would ask him not to send them maize nor anything at all since they were going to kill her. And the boldness and assurance of that virgin in her speech had so great an effect that they left her and sacrificed another in her place.

Divination. The importance of prognostication among the Maya and Mexican peoples can be understood if one realizes that a great part of many of their pre-Columbian manuscripts have to do with the sacred period of 260 days, usually called in Aztec, the *tonalpohualli* or *tonalamatl,* "Book of the Days," a device to determine the auspicious periods in which to undertake ceremonials, go on journeys, plant and harvest fields, and engage in other secular occupations.[7]

From the importance of the prophecy in the early manuscripts it is not, therefore, any surprise to find divination as the second main purpose of the Cenote ritual. This comes out most clearly in the famous description of the rites in the *Relación* of Valladolid (RY, 2: 24–26), where mediation is also seen. We learn that some Indian women belonging to each of the lords were thrown into the well, and they were told that they were to ask for a good year and all those things which seemed best to them. The victim was supposed to come out of the water, shout to be rescued, and then relate to the assembled group whether the future was to be propitious. Landa was skeptical regarding the actual return of the victim.

It will be remembered that in the account in the Chilam Balam of Chumayel, the chief, Hunac Ceel, performed the prognostication by throwing himself into the pool, after which he was declared ruler.

Chilans as prophets. Another means of prophecy was through the *chilans* or interpreters. Landa (1941, p. 112) observes: "The duty of the *Chilans* was to give the replies of the gods to the people, and so much respect was shown to them that they carried them on their shoulders." [8]

Roys writes (1933, p. 182):

In the Tizimin manuscript we find an account of the manner in which Chilam Balam gave his prophecy, and it is likely that it was the customary method with this class of priests. He retired to a room in his home where he lay prostrate in a trance while the god or spirit, perched on the ridgepole of the house, spoke to the unconscious *chilan* below. Then the other priests assembled, probably in the reception hall of the house, and listened to the revelation with their faces bowed down to the floor.[9]

Relief from hurricanes. Another reason for a sacrifice in the cenote is mentioned in the 1562 testimony (Scholes and Adams, 1938, p. 74) where we learn of an exhortation by Lorenzo Cocom who was closely associated with throwing boys into the Chichen cenote: "Behold, brothers, a great storm is coming and it is fitting, in order that we may not be lost, that we return to do that which our ancestors were accustomed to do, which was to sacrifice and worship the idols, and for this it is well that the two boys whom we have should die." [10]

Health of Cacique Juan Cocom. Agustin Che (*ibid.*, p. 76) gives his testimony that about a year before (1561) both Juan Cocom and his brother Lorenzo were present at a human sacrifice . Juan was the governor at the time and ill. It seems clear that a boy was actually put to death in an attempt to save Juan's life. The witness "told them they spoke to the idols with these words, 'Lord, powerful god, these hearts we offer you and we sacrifice to you these boys in order that you may give health to our governor,' saying this for the said Juan Cocom, governor." This sacrifice proving ineffectual, two months later it was repeated and two more boys were put to death inside the church. This also proved futile; the governor died, after which he was buried in the church.

3. RITUAL OF HUMAN SACRIFICE

In Chapter III-8 we found human sacrifice portrayed most infrequently in Classic times. But at Chichen and other sites in Middle America it appears often in the Mexican periods and very commonly in the Mexican codices, with a few examples in the Maya pre-Columbian manuscripts. The early references associate idolatry with human sacrifice and their introduction into Yucatan by Kukulcan II and the Itza in the comparatively late period of Chichen III. The connection between the cults of the Ball Court and the Jaguar-Eagle with human immolation is discussed in Chapter III-9,-10).

Before taking up the sacrifices at the Chichen Cenote, we will consider the ritual accompanying this and other forms of offering human beings to the gods.

The early accounts of human sacrifice in Yucatan, particularly that taking place at the various cenotes, gives us a fairly accurate picture of the ritual as it was practised from about 1536 to 1588. It should be remembered that the last phase of the Spanish conquest of the peninsula did not end until almost 10 years later (1546).

Priests

The Maya civilization can well be called a theocracy. The hieroglyphic writing, the architecture, the art and decoration, are all phases of the religious life and center in a priestly class.[11] Even among the warlike Aztec, the main purpose of their conquests seems to have been to obtain victims for sacrifice. The movements of the sun in the heavens depended upon the celebration of the Jaguar-Eagle cult. In early post-Spanish times, the native ecclesiastic system had largely disappeared, but there remained ministers of the early faith who were respected members of the community and who carried out the essential rituals for the welfare of the villages.

In the Lopez *relación* (Tozzer, 1941, p. 223) the writer reports that the priests were "held in great esteem and honored by all the neighboring regions"; they "were considered to be the most religious, wise and learned people and those most extreme in ceremonies and rites of the greatest seriousness because . . . they had their kind of letters and their books and treatises of their idolatries and false religion."

Lizana (1633, 1, IV), writing of one of the ruined mounds of Izamal, gives a good idea of the awe with which the people regarded the clergy. "There dwelt the priests of the Gods and they were revered to such an extent that it was they who were the lords and who punished and rewarded and who were obeyed with great fear and that which they asserted was believed in with such fear that there was nothing that would have been incredible."

High priest. Kinich Ahau Itzamna, according to Landa (p. 153), was the first priest of Yucatan and to his idol, "they offered . . . gifts and presents and burned before him their balls of incense with new fire."

Ah Kin. Landa (p. 23) speaks of a high priest called Ah Kin Mai or Ahau Can Mai. Lizana remarks, "The priests were called and are called so at the present day in the Maya language, *Ab Kin* (*Ah Kin*)." He gives an incorrect derivation of the title *Ah Kin*. It means "he of the sun" or "he of the day." It is also written *Al quin* and was used as the title of priest both in pre-Spanish and postconquest times.[12]

There seems to be some confusion in differentiating among the categories of priests. Landa (p. 111) records: "The greatest idolaters were the priests, *Chilans*, the sorcerers and physicians, *Chacs*, and *Nacoms*. The office of the priest was to discuss and to teach their sciences, to make known their needs and the remedies for them, to preach and to publish the festival days, to offer sacrifices and to administer their sacraments."

Chilan. "The duty of [this type of priest] was to give the replies of the gods to the people." These were probably the ones who read the *tonalpohualli*.[13] Later (p. 184) Landa tells us that "each town had authority to sacrifice those whom the priest or *chilan* or lord thought best." Again (p. 117), there is a reference associating this type of priest with the arrow sacrifice. The term *Ah Kin* is often used interchangeably with *Chilan*.

Sorcerer. Landa (p. 112) continues: "The sorcerers and physicians performed their cures by bleedings of the parts." There seems to be no great distinction in the terms "priest, physicians and sorcerers." The Bishop mentions the term "sorcerer" (*hechizero*) four times. Once (p. 94) he uses it in connection with "surgeons" (*cirujanos);* once (p. 130) in regard to divination; and in two other places (pp. 111, 112) associates it with "physicians" (*médicos*).

Chac. "There were four old men who were always chosen anew for each occasion, to aid the priest in carrying on the festivals well and thoroughly." We have seen the four rain gods called *Chacs*. Here they were the lesser priests who held the arms and legs of the victim for sacrifice (fig. 393). They were also the ones who drove away the evil spirits before any act of the ritual.

Nacom. Again Landa (p. 112): "The *Nacoms* were two officers; the first was perpetual and did not bring great honor with it, since it was he that opened the breasts of the human victims whom they sacrificed. The second was a choice made of a captain for war and for other feasts. His duties lasted three years, and he was held in high honor." The tabus around his office will be discussed later.

Shaman. "They also call in certain old Indian women Shaman," writes Sanchez de Aguilar in 1639 (1921 ed., p. 205), "when a woman is in labor, and with words of their former idolatry, she will enchant and hear her confession." An old female shaman (*vieja hechicera*) is mentioned along with *Ah Kin* and *Chilan* in the testimony on idolatry of 1562 (Scholes and Adams, 1938, p. 133).[14]

During the period of apostasy the native priests gradually ceased to be a class. Their functions were often taken over by the *cacique* of the village, other *principales,* or the schoolmaster.[15]

Dress and decoration. Although we can study the figures on bas-reliefs, pottery, or frescoes, it is usually very difficult to determine whether the important personages depicted with elaborate decorations and raiment are gods or priests. Archæological excavation often furnishes the actual objects of personal and ceremonial adornment, such as jade beads and breast ornaments. The early post-Spanish records also give us information as to priestly attire.

First of all, it should be remembered that body painting was common. Blue, we are told (RY, 1: 41), was used by the priests; black and red by the warriors. Black body paint was also used during the period of fasting. Blue, the color of the priests, was also associated with sacrifice, for the body of the victim was painted blue. Frescoes and the colored bas-reliefs confirm this.

We can get some idea of the types of decoration of the priests from the fact that "tattooing, body painting, the use of ear- and nose-plugs, and the wearing of masks and other ceremonial costumes were forbidden [by the Franciscans]" (Scholes and Roys, 1938, p. 587).

Regarding dress and appearance, the first and one of the best Spanish descriptions of Maya priests is that by Bernal Diaz (1, 19, III), who reports what he saw at Campeche when he was there with the Cordova expedition in 1517: "At that moment, there sallied from another house, which was an oratory of their Idols, ten Indians clad in long white cotton cloaks, reaching to their feet, and with their long hair reeking with blood and so matted together, that it could never be parted or even combed out again, unless it were cut. These were the priests of the Idols, who in New Spain are commonly called *papas.*"

Landa (p. 105) gives us a less gory account:

And he [the priest] wore a sort of *coroza* on his head of the same feathers; and under the jacket many cotton ribbons hanging down to the ground like tails. And in his hand he carried an *aspergillum,* made of a short stick finely worked, and for the hairs or bristles of the hyssop there were certain tails of serpents which are like rattlesnakes. And he showed exactly the same gravity as the Pope shows in crowning an Emperor; and it was a remarkable thing to see how much nobility all this dress gave to them.

Lopez (Tozzer, 1941, p. 224) adds a few details:

The superior of the priests likewise had certain special vestments of which the other lesser priests could not make use, which was a kind of alb and dalmatica, and he had a kind of mitre which was placed on his head, all of which he put on when he performed his religious functions. Those priests also used a kind of sprinkler. And on account of these insignia some Spaniards have wished to say, without foundation, that some apostle went through Yucatan and those regions of the Indies, as if the devil were not able and accustomed, in order to sing his idolatries and for the deception of men, to take ceremonies and rites and costumes and customs and laws and other things from some places and carry them over to other peoples in order to preach and persuade them to them. Moreover, all these insignia were not such as they describe them nor so similar to those of our priests and bishops.

Whereas Lopez speaks of the sprinkler, Landa describes it as an *aspergillum* which was also used to bless the children.[16] Cogolludo (4, VI) remarks on the priest "going forth in his long vestments and a hyssop in his hands."

In the *Relación* of Valladolid (RY, 2:24), there is a reference to "the *alquin,* clad in their kind of alb and a chasuble and a kind of mitre."

The dress of the priest is described in an excellent account, dated 1595, of the results of an investigation of idolatry in the Peto district of Yucatan by Pedro Antonio de Arroyo, Vicar of Chancenote (Scholes, Roys, and Adams, 1944, pp. 179–80):

Don Melchor Xiu, governor and cacique of Calamud (Calotmul) . . . stated that in his own pueblo "almost all the citizens (*vecinos*) were public and secret idolaters." Here the priest punished many "*heciceros,*" both men and women, and removed more than six hundred idols. The *probanza* also tells about a certain Juan Puc, "a bishop . . . who, as chief of the said idolatry, was respected and obeyed." This "bishop" made use of a mitre, described as being made of a *manta* painted yellow, a cope, hyssop "and other trappings of a pontiff and bishop," and he also had certain books of idolatry. He was assisted by four other native priests. . . . From all these leaders Arroyo took away numerous "idols, trappings, and offerings of copal incense, *cuzcas, piedras, cacao,* and clothing which had been offered to the idols."

Roys (1943, pp. 79–80) describes the priests' costume:

Although cotton vestments were sometimes worn, the usual costume of the priests was a long white sleeveless robe of bark cloth, the skirt often ornamented with snail shells. The headdress was a miterlike crown similar in form to that worn by the Mexican rulers and seen on some of the warlike figures dating from the Mexican period in the reliefs at Chichen Itza. . . . The shells and pointed crown [*xiuhuitzolti*] recall the representations of Quetzalcoatl and strongly suggest a Mexican origin for this costume.

In Dresden 26a, 27a, are priests who seem to wear "a sort of coroza" and "under the jacket many cotton ribbons hanging down to the ground like tails," according to the Landa description. The tails usually interpreted as the ends of the breechcloth and found principally on Maya figures in the bas-reliefs at Chichen Itza may possibly be identified with the "tails" described by Landa.

The feather headdresses of many of the ancient stone figures in the round or on bas-reliefs, together with neck, arm, waist, and leg decorations, give some idea of the elaborateness of the dress and ornaments worn by personages who may be gods or priests.

There seems no reason to doubt that the jadeite amulets,

earplugs, and beads dredged from the Cenote were actually worn at some time by the priests as representatives of the gods. Often the necklaces on the stone figures from the façade decorations, especially those at Copan, can easily be duplicated in tubular and round beads among the recovered jade objects. Even the original colors sometimes remain on the stone carvings. A necklace painted green undoubtedly denotes an original of jade; a yellow breast ornament on a figure in a codex probably represents one made of gold.

The priestly garb probably includes the pouch. These bags (fig. 577) are often carried by the figures in the stone bas-reliefs. Sahagun speaks of the bags as made of jaguar skin for the principal priests; for minor *clerigos*, they were made of paper painted to represent jaguar skin. Paper ornaments and paper flowers are frequently mentioned in the Aztec accounts. "Flowers of shirred paper" were worn on the neck and on the head. In the same sources constant references are made to rubber-spattered paper, representations of which are seen in the manuscripts.

The Victims of Sacrifice

Identified as gods. The apotheosis of the martyr is not uncommon in primitive religions. There are references among the Aztec to the belief that the persons to be sacrificed are identified as gods and, before the actual offering, are treated as deities. The Maya, so far as our testimony goes, do not seem to share this idea (Capitan, 1909, p. 111).

Voluntary and involuntary victims. Among the Maya there seem to have been two categories of people who were given to the gods. "Some," according to Lopez (Tozzer, 1941, p. 222), "were offered and sacrificed of their own free will while others were forced to undergo the death. The first were inhabitants and natives of the pueblos where they were sacrificed."

Self-immolation. It seems clear that offering made by the victim himself is rare. Lopez continues:

> Those who were sacrificed by their own free will were few. . . . Some did it in time of necessity and on account of their pride and vainglory in order to leave that memory of themselves; and for that reason not only was the memory of those who thus killed themselves perpetually celebrated but those of that lineage were highly esteemed. The day when one of those sacrifices was offered was celebrated greatly and one of the most important and holy spectacles they thought they had. There was a special place for this and it was performed with much pomp and solemnity. In the first place the sacrificial victim offered himself to the priests and made manifest to them his intention and vow, and the day on which it was to take place having been designated, the unfortunate wretch ascended to that place, which was very high, and, the people having gathered to see so sad a spectacle, he made an oration in which he gave an account of his motive and intention and he praised that kind of sacrifice and started to tell of all those of his lineage who had offered themselves in that way, and speaking and reaching the point of counting himself among the number of the others, he threw himself down there below, dashing himself to pieces, the people at once hastening with great devotion to take a piece of that flesh in order to eat it, as a thing they held in great devotion and veneration. [See Magliabecchiano, 72–73.]

Children. The most frequent victims seem to have been boys and girls. As in Mexico, children were especially acceptable to the gods of rain and of agriculture.[17] In the Sotuta and Homun testimony (Scholes and Adams, 1938, XII, XIV) there are constant references to children, often five or six years of age, being offered to the gods. Of the 168 persons who are mentioned by the witnesses in the trials as having been sacrificed, 80 per cent are boys or men and 20 per cent girls or women.

Purchased. The children offered were obtained in several ways. Some were bought. We read (Scholes and Adams, 1938, p. 90) of a boy "whom they bought from the Cupuls who was about four years old"; again (p. 94) "two bought from the Cupuls." In another purchase (p. 102), the price is given as "five red *cuentas* (beads) for each boy." The cost of a boy seems to have run from five to ten beads. In two places, a fathom-length of thick beads was paid for each of two boys.

Kidnapped. There seem to have been certain persons whose office or profession it was to obtain children for sacrifice by capture. Among the Indians of the New Kingdom, according to Lopez (Tozzer, 1941, p. 225), children were "taken and seized from their enemies and opponents in their wars." We shall see later that these were put to death in a special way.

Orphans. Orphans formed a class which furnished food for the gods. Some of these seem to have been taken into the houses of rich men to be brought up and later contributed by their patrons. Others may have been the offspring of decreased male relatives and slave women. Little time was lost in sacrificing a child after both parents were dead (Scholes and Adams, 1938, pp. 155–56): "They killed and sacrificed a girl named Ix Chable . . . daughter of Nahasio Chable and of his wife, natives of Sahcaba, already dead, and when they killed the said girl her mother had been dead five or six days."

Bastards. Among this category of victims may have been the offspring of deceased male relatives and slave women just mentioned. Palacio (1576, 1866 ed., pp. 28–30) gives a vivid description of the sacrifice of a boy among the Pipil in Guatemala and also of "*bastardos nacidos entre ellos.*"

Own and other children. Landa (p. 116) records: ". . . some in their devotion gave their little children who were made much of, and feasted up to the day (of the festival), and they were well guarded, so that they should not run away or pollute themselves with any carnal sin. And in the meanwhile they led them from town to town dancing, while the priests, *Chilans*, and other officers fasted. And when the day arrived, they all came together in the court of the temple. . . ."

Herrera (4, 10, IV) tells us that when slaves were lacking "they were so devout that they gave their little nephews and even their sons."

Children were donated by pious men and also presented by one *cacique* to another (Scholes and Adams, 1938, p. 152): "And the same Lorenzo Iuit told the other *caciques* that the *cacique* of Cansahcab, who is called Francisco Chel, had sent these girls, whom they said were from Cah which is their name for the province of Izamal, because such was the custom in ancient times that some *caciques* sent boys and girls as presents to other *caciques* for sacrifice, which was formerly called *quymchich (cim chich).*"[18]

Virgins. Certain writers have assumed that the girls who were sacrificed in the Cenote were all virgins.[19] The worst offenders in this interpretation were the Englishmen Arnold and Frost (1909), who claimed, quite incorrectly, that all the skulls recovered were those of young females from twelve to sixteen. They add: "[They were] hurled by the priests into the chasm, possibly after defilement by the high priests in the small building at the pool's edge, thus symbolizing the simultaneous surrender of virginity and life to the Rain Deity." At the time these statements were made regarding the status and treatment of the girls thrown into the Cenote, there was little basis for attempting to establish either their virginity or presacrificial defilement. Now that the Spanish text of the *Relación* of Lopez in available, we find he uses the term *doncellas* to describe Indian women who were sacrificed, and he notes (Tozzer, 1941, p. 223), "And they placed her in a shrine which was near there, where the priests withdrew with her." Here, perhaps, is a late justification for Arnold and Frost's statement made in 1909. In the testimony collected at Sotuta and Homun regarding human sacrifice (Scholes and Adams, 1938, XII, XIV) the victims are usually called *muchachos* and *muchachas.* Sometimes the girls are called *niñas.* In a few places their names are given in full (*ibid.*, p. 151) and preceding each name is the Maya feminine prefix *ix.*

All the skeletal material recovered from the Cenote has been studied by Hooton (1940, p. 273), whose report is significant in view of the above statements. He writes:

> Certainly, or almost certainly, 13 of the skulls, belonged to adult males, and 4 of the 6 pelves represented the same sex. The males ranged in age from subadult (18–21 years) to old (55 years and over). Only one of the females was middle aged (35–54 years); of the other 7, 6 were young adults (21–34 years) and the other a subadult (18–20). There are 7 skulls of children between 10 and 12 years. Of the 14 skulls of younger children, 9 were estimated to have been aged 4 to 6 years, one 6 to 8 years, one 3–4 years, one 18 months. The other 2 were represented only by fragments.

In so very short a series as 21 adults, there is no statistical value. However, of the 21 adults, 62 per cent were male and 38 per cent female. As Hooton remarks, "All of the individuals involved (or rather immersed) may have been virgins but the osteological evidence does not permit a determination of this nice point."

Of the many references to the sacrifice of virgins in other regions, we note the account by Cortés of the people of Teutiercas in Acalan dedicating their principal temple presumably to the goddess Ix Chel. In her "they had much faith and hope." In her honor, "they sacrificed only maidens who were virgins and very beautiful; and if they were not such, she became very angry with them" (Scholes and Roys, 1948, p. 57).

Prisoners and captives. The Lopez *relación* states that those who were compelled to be sacrificed were "captives and men taken in the wars." In a *relación* dated 1579 (RY, 2:161–62) we read of a Cupul, lord of Ekbalam, who had a war with a pueblo called Yalcoba and "those whom they captured remained slaves and the others they sacrificed to their idols." There seems to have been some class distinction in those captured, as Landa (p. 123) notes: "If they made a prisoner of some distinguished man, they sacrificed him immediately, not wishing to leave any one alive who might injure them afterwards. The rest of the people remained captive in the power of those who had taken them." Here one might assume the sacrifice was for policy rather than for religious purposes, but in the Chi Manuscript (Tozzer, 1941, p. 231) we read, "Those who were captured in war . . . if they were men of rank, (they sacrificed) them (to the idols, although some of them) were ransomed." Less distinguished captives were held as slaves, and Cogolludo adds that such slaves were very severely treated.

Another point of view regarding the social significance of the prisoner is brought out in a passage from Herrera (4, 10, III): "Their greatest desire was to seize important men to sacrifice, because the greater the quality of the victim, the more acceptable the service they did to god seemed to them."

One of the many descriptions of the ill-fated outcome of the Valdivia Expedition of 1511 is that given by Cervantes de Salazar in 1560 (Tozzer, 1941, Appendix D). We read of the Spaniards under Valdivia, wrecked on the northeast coast of Yucatan, and captured by a cruel lord of the country who offered Valdivia and four others to his idols, afterwards eating them, "making a feast" according to the custom of the country. Geronimo de Aguilar, Gonzalo Guerrero, and a few others "remained in a coop in order that, for another festival that was approaching, being fatter, we might solemnize their banquet with our flesh." Aguilar and Guerrero escaped, the former eventually to join Cortés, while Guerrero, refusing this opportunity, "went native," serving faithfully one of the lords of the country and helping him in resisting the Spaniards and native enemies. After one of their victorious encounters with another band of Maya, "they took many *principales* prisoners, whom they afterwards sacrificed."

Slaves. We have already seen in Landa's description of the attempted Xiu pilgrimage that they "brought them (the idols), slaves of both sexes to throw them into the well of Chichen Itza." Slaves captured in war are frequently mentioned as victims for immolation. Herrera (4, 10, IV) writes, "For these sacrifices they captured slaves in war." Those who did this "were considered as valiant men when they returned." Slaves were purchased especially as victims to be offered in sacrifice.[20] Landa (p. 115) writes, "On account of some misfortune or necessity [they were ordered] to sacrifice human beings, and everyone contributed to this, that slaves should be bought. . . ."

In the *Relación* of Valladolid (RY, 2:27–28): "The lords and chief men killed some male and female Indian slaves which they possessed so that, taking out the heart, they might offer it to these idols. Those who did not own them offered little dogs and other kinds of animals, smearing the mouth and nostrils of these idols with the blood."

The offspring of a female slave was sacrificed when the father died.

As among many other peoples, slaves, as well as wives, were often sacrificed on the death of a person of importance. Many archæological investigations support this. Thompson (1939, pp. 283–84) gives a detailed account of burial customs in the Alta Verapaz, published by Roman y Zamora (3, VIII) in 1575. We learn that the body, covered by the *mantas* and gifts of jewels from the chiefs, was placed in a box of wood or of stone. Slaves of both sexes belonging to the deceased were killed "so that they might go ahead to prepare lodgement for their master, for they believed that they would have to serve him in the next world just as they had served him in this. A masonry altar was built over the grave on which they burned incense and offered sacrifice." Lopez (Tozzer, 1941, p. 225) states that in some parts of the Indies, "the lords were buried in certain vaults and subterranean caves which they made for them, in a sitting position, and they put near them much food and drink. . . . They also put with them in that vault many male and female slaves of those which had belonged to the deceased and some of their most dearly loved wives."[21]

Condemned persons. Herrera (4, 10, IV), in giving the classes of people selected for sacrifice, names those condemned for some crime. Punishment by death might be included here,

although the purpose of sacrifice to the gods seems to be absent. Landa (p. 123) describes punishment for one crime:

> This people had preserved from Mayapan the custom of punishing adulterers in the following manner: the investigation having been made and some man having been convicted of adultery, the *principales* met in the house of the lord, and the adulterer having been brought they bound him to a post and handed him over to the husband of the woman who was at fault. And if he pardoned him, he was free, but, if not, he killed him by throwing a large stone down from a high place upon his head. . . . The penalty of homicide, even when it was accidental, was death by the snares of his relations. . . ."

Preliminaries of the Ritual

There are rules, precautions, and acts which must necessarily precede any religious observance.

Prognostication. The first of all preliminary operations of most rituals seems to be the determination of the propitiousness of the katun, the year, the month, or the day when it is planned to begin a celebration.

One of the duties of the priest, according to Landa (p. 27), was to teach "the sciences," part of which consisted of the computation of "the fateful days" and (p. 110) "to publish the festival days." Mention has been made of the device of the *tonalpohualli* to determine the auspiciousness of any day. In the *Relación* of Dzonot (RY, 2:210) the statement runs: "These Indians had another whom they obeyed who was like a priest who in their language is called *Ah Kin*. This one declared to them the time for sowing and the Indians went to take the augury if they were to have a good year and if it was going to rain." The time of preparing the *milpa,* burning the bush, sowing the seed, reaping, going on a journey or on a hunt, making a visit or some other ordinary mundane operation is often predetermined by the local oracle. The Tro-Cortesianus is especially devoted to prognostications by means of the *tonalpohualli* for the events of everyday life.

Exclusion of women. As among many primitive people, females were generally denied admission as participants in the religious acts. In connection with the New Year's ritual, Landa (p. 152) states: ". . . in no sacrifice or festival, which they celebrated in the temple, could women be present, except the old women who had to dance their dances." Again (p. 128), "Nor did they allow them [the women] to go to the temples for the sacrifices, except on a certain festival, at which they admitted certain old women for its celebration."

Herrera (4, 10, IV) has a long and interesting passage on Maya women which amplifies Landa. On their religious life, he observes: "They also got drunk in the feasts, although they ate by themselves. . . . They were devout and religious and they did not shed blood for the demons and they did not allow them to go to the sacrifices in the temples except on a certain festival which certain old women attended."

Among the present Lacandon we find the same tabu on women at rituals (Tozzer, 1907, pp. 104–05, 108; 1941, p. 128, note 596).

Renovation. The replacement or restoration of all objects used in the ceremonies was accomplished by the Maya in the first days of the first month (Pop) of their year. Landa tells us (p. 151): ". . . they renewed on this day all the objects which they made use of, such as plates, vessels, stools, mats and old clothes and the stuffs with which they wrapped up their idols. They swept out their houses, and the sweepings and the old utensils they threw out . . . and no one, even were he in need of it, touched it." [22]

Garnishment of temple and paths. As a further preliminary to the actual ritual, the temple, the court, and the house were cleaned and decorated with green leaves. Landa describes this (p. 105): ". . . they swept the court and cleaned it of the leaves of the tree, . . . and they threw other leaves of another tree, which they call *copo*." [23] After describing the bringing of the children to be baptised, he continues (103), "They were placed in the patio or court of the house, which they had swept and spread with fresh leaves."

Paths leading to the piles of stone at the entrances to the towns are cleared and decorated in the same way. "They had erected a heap of stones with its steps, and all very clean and ornamented with green foliage" (Landa, p. 163).

Evil spirits banished. A common preliminary to all ceremonies is the exorcism of dangerous influences, as expressed by Landa (p. 153): "The priests . . . having assembled, clothed in their ornaments, . . . first they drove away the evil spirit as usual"; and , again (p. 152), "All having come together with the presents of food and drinks, which they had brought, and also a great quantity of wine, which they had made, the priest purified the temple, seating himself in the middle of the court, clothed like a pontiff, having near him a brazier and the little boards with incense." [24]

Rite of the four cords. In an observance of baptism, Landa (pp. 103–04) describes a method of clearing the dwelling of evil influences: "[The children] were placed in the patio or court of the house, which they had swept and spread with fresh leaves . . . the priest undertook the purification of the dwelling, chasing the evil spirit out of it. To drive him out they placed four little stools in the four corners of the court, on which the four *Chacs* sat down with a long cord held from one to the other, so that the children remained shut up in the middle. . . . [Incense was burned inside the cords] and by this they said that the evil spirit had been driven away." [25]

Payment for rituals. We learn from the Bishop (p. 87): "The priests got their living from their offices and from offerings." The high priest (p. 27), *Ah Kin Mai,* "was very much respected by the lords and had no *repartimiento* of Indians, but besides the offerings, the lords made him presents and all the priests of the town brought contributions to him. . . ."

Order of the Ritual

When the various preliminary acts, often precautionary in nature, are completed, the actual ritual begins. There is, in many cases, an invariable pattern in the sequence of the various acts.

Inauguration by the Priest

In general, the priest or *chilan* "ordered" the celebration. At a later time, from the evidence taken in the investigations on idolatry, it seems clear that the local governors or *caciques* usually commanded the sacrifice.

Ceremonial Purity

As in all religions, there is a never-ending attempt throughout all the rituals to obtain immunity from defilement of any kind (see Tozzer, 1941, p. 315). The women were removed from all contact with the ceremonies, as their presence might bring contamination. The tabus placed on the men during all the religious observances are many. The cleansing or enlarging of the temple and the renovation of all the utensils used in the ritual have been mentioned.

Perfection. Impeccable is perhaps the correct word to describe the requirements of all rituals. As in most primitive religions, the order of exercises must be carried out with no deviation, however small, from the norm. In the *Relación* on Ponce (1875 ed., 1:473–75) we learn that it was considered a bad omen when, at a human sacrifice, a performer missed his beat on the drum and the rhythm was broken. In such a case the ritual was stopped and the unfortunate musician took the place of the one who had been originally intended for sacrifice.

From Aztec ritual (Sahagun, bk. 2; Bandelier ed., p. 90) we learn: "They also watched the one who placed his offering whether his blankets were clean and if he had a thread, a straw, a hair or a feather or animal hair on any of them, he was to be punished for it. Neither was anyone to stumble or fall as this, too, was a cause of punishment." In the same way, anyone going on a religious errand must never look backward.

Fasting and continence. Of these two restraints, usually mentioned together, there is no better account than Landa's description (p. 122) of the military *nacom:*

> [He was] elected for three years in order to conduct the festival [in the month Pax]. . . . He could not during these three years have relations with any woman, not even his own wife, nor eat meat. They held him in great veneration, and they gave him fish and iguanas. . . . In this time he did not get drunk and he kept separate in his house the utensils and other objects which he used and no woman served him and he had but little communication with the people.

Another account, covering much the same ground, is found in the *Relación* of Valladolid (RY, 2:25):

> In this cenote the lords and important men of all these provinces of Valladolid were accustomed, having fasted for sixty days without raising their eyes in this time even to look upon their wives nor upon those who brought them food, and this they did as a preliminary to, upon reaching the mouth of that cenote, throwing into it at the break of dawn, some Indian women.

In the festival taking place in the first month of the year, Landa (p. 152) says:

> . . . the lords and the priest, and the principal people began to fast and to abstain from their wives, as well as those who wished to do so on account of their devotion, for such time beforehand as they judged proper; for some set about it three months in advance, others only two, and still others as long as seemed good to them, but no one less than thirteen days and for these thirteen days besides abstaining from their wives, they did not eat salt or pepper with their food, which they regarded as a great penitence. . . . Those who once began these fastings did not dare to break them, because they believed some calamity to themselves or to their houses would befall them.

During the period of abstinence in the ritual of making the idols, the participants covered their bodies with soot. Landa continues (p. 161):

> . . . he [the owner] and the workmen having first cleaned themselves of the soot with which they anointed themselves, since they said they had fasted while they were making them . . . handed them over to the owner. [In the renewal rites at the beginning of the year (p. 152):] Here now the men came clean and ornamented with their red ointment, after having cleaned themselves of the black soot with which they covered themselves when they fasted.[26]

In addition to fasting and abstinence as necessary observances in celebration of the ceremonials, there were tabus of sight, touch, use, and speech, as well as time requirements (Tozzer, 1941, p. 321).

Virginity. The question of the purity of the girls to be offered to the gods of rain in the Cenote was discussed above, together with the exclusion of women from the actual rites. This prohibition was due to the fear of possible contamination. The same idea comes out in connection with the water used in the services. According to one of the stipulations, it was to be brought from the woods where a woman had never penetrated. In the baptismal rite, Landa (p. 105) observes: "They made this water from certain flowers and of cacao pounded and dissolved in virgin water, which they called that brought from the hollows of the trees or of the rocks in the forests." According to Cogolludo (12, VII), "All the Indians always go to worship the idol, the women are not present except for the virgin who makes the bread for the ministers of the devil."

In the *Relación* of Valladolid (RY, 2:24), "water and dew which was on the leaves of trees" were used in the ritual. In the ceremony for the Muluc years, "a little dog with a black back . . . which was a virgin" was sacrificed (Landa, p. 145).[27]

Virgin fire (*Suhui kak*). Fire, newly kindled with a fire-drill, was a part of every ritual. According to Landa (pp. 155, 157):

> And the priests giving them the incense, they burned it in the brazier of the new fire . . . and the *Chacs* kindled the new fire, and lighted the brazier for in the feasts in which all joined in common, they burned incense to the idol with new fire and the priest began to throw this (kind of) incense into it, and all came in their turn, beginning with the lords, to receive incense from the hands of the priest, which he gave them with as much gravity and devotion as if he were giving them relics. And they threw it into the brazier little by little waiting till it had finished burning. After this perfuming, they all ate the gifts and presents, and the wine went round till they became very drunk. . . .[28]

Another aspect of purity is mentioned by Roys (1949, p. 160): "In the Tizimin (p. 30) we read that Ah Uuc-Yol-Sip receives his donation in the heart of the forest. The mention here of Uuc-Suhuy-Sip ('7-virgin *sip*') apparently emphasizes the celibacy of the same male deity. . . . Here, perhaps, 'virgin,' as in 'virgin forest,' means 'untouched' or 'not in contact with man.'"

Virgin plates. In connection with human sacrifice, a witness in the idolatry trials testified (Scholes and Adams, 1938, p. 143): "The bowls in which they place the said heart they call *zuhuy lac,* which in the Spanish language means, 'virgins.'" The same term is given to the plates used to contain the severed heart, one used as the receptacle and the other as the cover. These will be discussed later.

Drunkenness and nausea. Ceremonial intoxication was obligatory both as a direct part of the ritual and as an accompaniment to the feasting, the aftermath of many of the religious observances. The latter will be considered in another place. It is possible that one reason behind compulsory intoxication is that of purgation or personal cleanliness demanded by the ritual.

The healthfulness claimed from drinking *balche* is also

brought out in the following *relación* (RY, 2:188): "After they were drunk, they vomited, and were purged which left them cleansed and hungry, and then they ate with a good appetite. Some of the old men say that this was very good for them, that it was a medicine for them and cured them because it was like a good purge."

VAPOR BATHS. Ceremonial cleansing may have been achieved by sweating. This is a custom among peoples of the New World. Sweat baths are found in Maya ruined sites both in the Classical and in later times. This subject has been considered at length in the discussion of the various types of buildings in Chichen II.

DISPOSAL OF REMAINS OF SACRIFICES. It is probable that the care taken in the distribution of the "dead" idols and the offerings not actually consumed (to be discussed later) would be considered part of the ceremonial cleanliness connected with everybody and everything concerned with the ritual.

MATS AND LEAVES. To maintain the purity of the idols and other sacred paraphernalia and to prevent contamination, mats and leaves were always placed under such objects. Testimony at Sotuta (Scholes and Adams, 1938, p. 106) runs as follows: ". . . they went and placed the idols in a row, each upon leaves of the castor-oil plant, and stretched before them a long mat; and upon the mat they placed a large flint knife, the handle of it wrapped in a white cloth." In Landa (p. 158) we read, "The appurtenances used in sacrifice" are placed on the leaves of the same plant. "They all spread out their idols below in the court yard, each for himself, on leaves of trees." [29]

IDOLS

There seems good reason to suppose that idolatry was not always present in the Maya worship of the gods. The image which might conceivably be considered an idol is singularly lacking in the Classic period.

INTRODUCTION. It has already been pointed out that idolatry and human sacrifice seem, according to the early records, to have been introduced by Kukulcan II, who is here associated with the Itza and Chichen III, or late Mexican (1200–1460). Seler (1898, 1902 ed., p. 675) quotes an ancient manuscript of Motul which reads: ". . . originally a god had been worshipped here who was the creator of all things, and who had his dwelling in heaven, but that a great prince named Kukulcan with a multitude of people, had come *from a foreign country*, that he and his people were idolaters, and from that time the inhabitants of this land also began to practice idolatry, to perform bloody sacrificial rites, to burn copal, and the like." [30] "It is not a thousand years," states the *Relación* of Chunhuhub (RY, 1:148), "that they worshipped idols, because the lords of Chichen Itza and their vassals, they give to understand, were not idolaters." The "lords of Chichen" probably refer to those responsible for the Toltec-Maya period there.

It has already been noted that Landa found in the small structure on the brink of the well idols "made in honor of all the principal buildings of the country."

There is no question but that idols played a considerable part in the Cenote ceremonial as in all the other rituals. In the Sotuta testimony (Scholes and Adams, 1938, p. 102) there is a reference to the fact that, before a sacrifice, idols were brought from Chichen Itza. Landa (p. 110) remarks:

> They had such a quantity of idols that even those of their gods were not enough; for there was not an animal or insect of which they did not make a statue, and they made all these in the image of their gods and goddesses. They had some idols of stone, but very few, and others of wood, and carved but of small size but not as many as those of clay. . . . They knew well that the idols were the work of their hands, dead and without a divine nature; but they held them in reverence on account of what they represented, and because they had made them with so many ceremonies, especially the wooden ones.

CLAY IDOLS.[31] The term "image" seems to have been confined to idols of clay. It is probable that this was the material of which most of the idols were made. The clay brazier which held copal for burning incense is often called an idol. Many examples of these have been recovered from the Cenote and they are found even up to the present time deposited in the ruins.[32]

The talking idol of Ix Chel at Cozumel and her worship here and in other places have been considered.

STONE IDOLS. It is significant that the references to stone idols are few. Only once (p. 110) is this type mentioned by Landa (above). In the *Relaciones* stone idols are also mentioned very infrequently. Where, one might ask, have actual stone idols ever been found in all the Maya area? There are chac mools, standard bearers, atlantean figures in the Mexican periods, but can anyone of these be strictly called an idol? In Mexico, among the Aztecs, on the other hand, stone images of the gods seem to have been very common.

A curious table-like idol or altar is described by Avendaño. On his arrival in 1696 at Tayasal, the last home of the Itza, he writes (Means, 1917, pp. 135–36):

> On the shore of the landing place is situated the house of the said petty King . . . in the middle of which, open to the street, stands the fragment of a column of round stone, the circumference of each part of which is about three quarters of a yard across and one quarter high. It is made of stones placed on top of each other with mortar of lime and *cah cab*, which is usually used for this purpose; and the middle is filled in with bitumen, so that it is like a table, with a round pedestal, upon which and set in the foundation of the said column, there stands out toward the west a stone mask, very ill-formed, which, together with the stone column, the petty King and the rest of his family and followers worship. The said column is called in the name by which they worship it, *Yax cheel cab*, which means in their language, "the first tree in the world."

WOODEN IDOLS. The word "statue" seems usually to refer to one of wood. Landa (p. 111) says: "The wooden idols were so much esteemed that they were considered as heirlooms and were (considered) as the most important part of the inherited property. They possessed no idols of metal, since there was no metal there." Several small idols of wood covered with copal and rubber came from the Cenote.

WAX IDOLS. In a document relating to an *entrada* of Juan de Morales Villa Vicencio to the Lacandon country in 1586, Thompson (1952) cites the waxen idols used by the natives. He quotes the testimony of Anton Gomez: "Close to where the canoes were kept they found the bundle of pine torches with the little idol of wax and rubber. . . . It seems that (the offering) signifies that it had been offered to the demon so that he would obstruct the road should the Spaniards pass over it again. . . . The hairs stuck in the said wax signify the number of men whom they have killed. And this he understands according to their ancient rites as a man who grew up among them." Thus, in addition to idols of wood covered with copal and rubber such as occur in the Cenote collection, we must now add idols of wax, so common over the world for working evil by means of sympathetic magic.

In his description of the religion of the Peten Itza, Thompson (1952) writes: "Idols were extremely numerous, for in addition to the large numbers in the temples, two or three were set on a small bench in every house, and they were kept in caves. The idols were of wood, stucco, alabaster (probably crystalline limestone), of the most precious marbled stone (*jaspe*) in green, red, purple, and other colors, and of an unidentified metal. The idol of the god of battle was of *esmeralda bruta* (jade?) and was about eight inches high." [33]

There is an excellent quotation about idols and their worship among the Chontal in a report of the Villa de Tabasco, dated 1599 (Scholes and Roys, 1948, p. 58): "They had idols of clay, wood, and the stones which they called *chalchiuites*. . . . These they worshiped and held as gods of various things; because they had gods of the sun, rain, maize, and the winds, so that for anything or season they had its god, and likewise they had a god of battles" (see also Roys, 1943, p. 72).

OFFERING AND BURNING OF COPAL

For incense, the Maya used copal, rubber, chicle, and a resin called *puk ak*. In addition to these the Aztec also used wax and bitumen (*chapopotli*). The most common form among both peoples was copal (*copalli* in Nahuatl, *pom* in Maya). The Yucatan variety was derived from a species of *Icica* (*Protium Copal*).

"They raised many trees of the incense for the idols," writes Landa (p. 197), "and they got it out by wounding the tree in the bark with a stone so that gum or resin should run from it. The tree is fresh, tall and with good shade and leafage, but its flower makes the wax black, where it grows."

In describing the Maya village of Sinsimato, on the northeastern shore of Yucatan, Oviedo (32, III) tells of the value of copal for trade.

> In this space of two leagues are all those level and flat places full of trees of incense, very well cared for and clean because this commodity is a very great business and shipped to all parts to use to perfume their *kues* or oratories and to use in their sacrifices and mortuary rites. . . . These trees are very graceful, fresh, and tall and for that people, a great and useful article of trade because there is no incense in all the province except here and in order to extract it they make a cut in the tree and make in it a cavity about as large as a closed fist and into this cavity the liquor drops and runs little by little and it coagulates, leaving the incense and from there they take it.

The use of copal as incense among the present Maya and Lacandon constitutes an excellent survival of this type of gift to the gods.[34]

In the *Relación* of Mama (RY, 1:169), we learn: "The natives used this fume a great deal, for they offered it as a sacrifice to their gods . . . the natives smoked their idols and houses of idolatry." In the Chumayel manuscript (Roys, 1931, p. 278) copal is called "the super odor of the center of heaven . . . and the brains of heaven." Landa constantly speaks of offering and burning the resin in behalf of the gods. "The priest gave incense, prepared beforehand for the host, who burned it in the brazier, and so they say the evil spirit fled away. This done, with their accustomed devotion they anointed the first step of the heap of stones with mud from the well, and the other steps with a blue paste, and they scattered smoke from the incense many times, and invoked the Chacs and Itzamna with their prayers, and devotions, and made their offerings."

Another and most important source of information about copal offered to the idols is derived from specimens dredged from the Cenote. In fact, copal was the most common substance recovered.[35] Large masses of the unburned resin, usually contained in a dish or plate of the so-called Red Lacquer ware, were thrown into the sinkhole. There is no way of telling how much was actually burned in connection with the ritual, but the effect of intense heat, probably from the copal, is shown on many of the specimens taken from the Cenote. The temperature of the burning copal must have been very high as the heat melted obsidian, often reduced jade to a powder, and melted some of the metal objects.

RUBBER

The Cenote copal was often found associated with rubber. This is in accord with what Landa (p. 145) tells us of an altar "upon which they burn their incense and a ball of resin or the milk *kik* (literally 'blood')." This "perfume," consisting of rubber and copal, is constantly mentioned in the early accounts.

OFFERINGS OF FOOD AND DRINK

After the burning of copal to the gods, the actual oblations are made (see Tozzer, 1941, pp. 315–17).

VARIETIES.[36] Both vegetable and animal offerings were made.

Apart from human beings and their blood consigned to the gods, animals of many kinds were presented as well as fish, honey, and shells. In regard to the offerings made at the *Tupp Kak* ritual, Landa states (p. 162): "They hunted for all the animals and creatures of the field, which were to be had and which there were in the country, and they came together with them in the court of the temple. . . . And if they were unable to get larger animals like tigers (jaguars), lions (pumas) or crocodiles, they made their hearts out of their incense. . . ."

Animal sacrifice and the degradation of the offering will be taken up later.

A report from the Villa de Tabasco, dated 1579, runs: "They worshipped these gods with great veneration and much respect, and they made sacrifices to them of human blood and game birds as well as domestic animals and whatever they hunted for the purpose."

Among the vegetable offerings, food cooked without salt was the main item. Bread (maize) mixed with eggs, gourd seeds, hearts of deer, and pasties of quail are mentioned. Drinks of cacao, parched maize of a certain number of grains, posole, and beans are on the list, together with *balche* which is discussed below. Flowers, wooden masks, stone and shell beads, jade, cloth and *mantas*, arrows, metal objects, and even farm property are all mentioned in the early accounts as gifts to the gods. To this list should be added, from Lacandon sources, *buliwa* (tamale), game, and tobacco. These people endeavor to ascertain what kind of offering is desired by the god as shown in the following prayer: "An offering of *posole* if he may care for it, the god. . . . Anything (as) his gift he may like, O god. What does he like, an offering of posole?" (Tozzer, 1907, p. 171).

MANNER OF OFFERING. As already noted, idols of clay appear to have been the most common form. These, in many cases,

consisted of a brazier, on one side of which was a grotesque head with an open mouth, in or on which offerings were made. If, once again, we can use the Lacandon customs as examples, we find that every gift of food and drink to the deities was presented to the god represented by the head on the brazier as an intermediary. We have just seen that an inquiry is first made as to the type of gift desired.

This is followed by the article itself, purified, usually by incense, and "placed" before the brazier or, as it is expressed in the chant, "restored" to the gods, as we saw in the case of the copal. Another chant of this kind follows: "I am restoring my offering of meat to you for you to restore it to the father (*yum*), for you to carry it up to the father" (Tozzer, 1907, p. 84).

The next step is for the gift to be actually offered to the head of the brazier. The gift of maize and water is contained in numbers of gourds placed before the lines of braziers laid out on a carpet of green. Some of the liquid from each container is then given, in a wooden spoon, to each brazier in the following chant: "I will dip out upon your mouth my offering of *posol* to you. I will dip out into your *olla* my offering of posol to you for you to climb and sit down upon your resting place" (*ibid.*, p. 186).

Descent of the god. The final act in the Lacandon rite is a prayer asking the god to come down to receive the offering. "I am dipping out upon your lips again for your welfare, for you to come and charm my sons, for you to descend. Retard your feet in order to drink my offering of *posol* to you" (*ibid.*, p. 173).

For this last stage in the offering Landa (p. 143) helps us: "They said that an angel descended and received this sacrifice." After speaking of an offering to Kukulcan, he (p. 158) informs us, "They said and considered it as certain that Kukulcan came down from heaven on the last day of these (five days) and received their services, their vigils and offerings." The feast of *Em Ku*, which means "the descent of god," described by the same author (p. 106), may refer to this belief.[37]

Balche: ceremonial intoxication. Drunkenness among the ancient Maya has been described in connection with the ideas of cleansing and purity. As part of the religious rituals, compulsory inebriation is frequently noted. "They [RY, 2: 215] had no fiesta in which they did not get intoxicated and sacrificed."

Although no special instances of "orgies" are mentioned in connection with the rites at the Cenote, it seems very probable that the priests, either before they set out from the great court in front of the Castillo or after their arrival at the Cenote itself, consumed large quantities of *balche*, "the wine of the country." This fermented liquor is described by Landa (p. 92): "And they make wine of honey and water and a certain root of a tree, which they cultivated for this purpose, by which the wine was made strong and stinking."[38]

In a letter of 1696 which I (1913, p. 504) discovered in the Archives of the Indies at Seville regarding the early Lacandon, we read, "The said *Caciques* intoxicate themselves with a water made of pine-apples and sugar-cane." Among the Lacandon today (Tozzer, 1907), there is a compulsory religious intoxication caused by drinking *balche* which seems to be identical with that described by Landa.[39]

Roys (1933, p. 151) cites the following passage which may refer to the dissipated actions of the natives as described by Landa (p. 91):

> Then begins the lewdness of the wisemen, the beckoning of carnal sin. . . . (Carnal sin) is its garment, carnal sin is its face, . . . carnal sin is its sandal, carnal sin is its head, carnal sin is its gait. They twist their necks, they twist their mouths, they wink the eye, they slaver at the mouth, at men, women, chiefs, justices, presiding officers, clerks, choir-masters, (everybody both) great and small. There is no great teaching. Heaven and earth are truly lost to them; they have lost all shame.

The healthfulness of this drink is attested in several early accounts. Among these is the *Relación* of Valladolid (RY, 2: 28), "They say this wine kept them healthy because with it they purged their bodies." After its use was prohibited by the Spaniards the natives were said to have suffered as a consequence. A *relación* (Roys, 1931, p. 216) states: "Another reason why these Indians have diminished in numbers is . . . because they are prevented from making a wine . . . which, they said, was healthful for them and which they called *balche*."

In the Sotuta and Homun testimony (Scholes and Adams, 1938, pp. 141, 147) *balche* is called "the wine of the country" in contrast to the "wine of Castile." The latter is mentioned as "mixed with honey and water" (p. 100); in one place (p. 154) a jug of it is offered to the idols.

The good Bishop, naturally horrified at this custom of drinking to excess, speaks of it almost 20 times. Among these references, he mentions "their drunken feasts" (p. 70), "their drunken orgies" (p. 73), "and when the drunkenness was general and accompanied with sacrifice, everyone contributed to it" (p. 91).

In the month Pax there is a rite, paid for by the rich men, which seems to have been prolonged during the last three months of the year. Landa (p. 166) records:

> [They made] wine-skins of themselves, and this was the inevitable conclusion (of their feasts). And so great was the excess which there was in these festivals during these three months that it was a great pity to see them, for some went about covered with scratches, others (with bruised skulls), while others had their eyes inflamed with much drunkenness, and all the while with such a passion for wine that they were entirely given up to vice through it.

It is perhaps significant that, in contrast to Landa's constant mention of intoxication, the word seldom appears in the testimony of the Maya witnesses called in the idolatry trials. After one human sacrifice (Scholes and Adams, 1938, p. 141), they returned, ate, and drank chocolate!

It is interesting to note that, as late as the beginning of the 17th century, the friars were complaining of the natives that, "They are drunk with *balche* the year round and live in idolatry."[40]

Ceremonial feasting and drunkenness at the end of the religious ceremonies will be considered later.

Other Offerings

In addition to the sacrifice of human beings and gifts of copal, food, and drink, we learn from Landa (pp. 181–82): "They also threw into the well a great many other things, like precious stones and things which they prized. And so if this country had possessed gold it would be this well that would have the greater part of it." The array of objects taken from the Cenote have been mentioned in Chapter V-6.

Use of Blue Color

Blue seems to have been the color associated with sacrifice. The body of the victim killed by arrows or by extraction of his heart was painted blue, as was the stone over which his body was thrown. Blue was also applied to the idols, the stones used for prophesying, the sacred "books," and for anointing an arrow and a deer's skull in the hunter's rite. Iguanas of a blue color were part of an offering. The same color appears on many of the balls of copal and other objects retrieved from the Cenote.[41]

Finally, the lower steps of the altar (Landa, p. 164) or heaps of stones were anointed with "mud from the well"; the other steps were painted blue.

Prayers

Several of the invocations or chants offered by the Lacandon have been mentioned in connection with the offerings.[42] The Bishop says that the priests uttered "plenty of fervent prayers" (p. 161) with "great devotion," invoking the gods to come and partake of the offering.

In the month Pax, he continues (p. 164): ". . . they kept watch in the temple of Cit Chac Coh five nights in prayer, with offerings and perfumings of smoke"; in the month Xul (p. 158), "The lords and those who had fasted remained there (at the temple of Kukulcan) without returning to their houses for five days and five nights in prayer, always burning copal and engaged in their offerings, and executing several sacred dances. . . ."

Head Deformation

The custom of artificially flattening the frontal bone, although seemingly of no religious importance, should be mentioned once more. Landa writes (p. 88): "They had their heads and foreheads flattened, and this was also intentionally done by their mothers in their childhood."[43]

Body Mutilations

The piercing or cutting of parts of the human body had both a secular and a religious purpose. Says Landa (p. 88): "And they had their ears pierced for ear pendants, and much torn by their sacrifices."

Secular defacements. This was performed by different classes of the population and for different purposes. Cogolludo (2, VI) speaks of warriors with "holes in the noses and ears, with nose and ear pieces of cuzcas and other stones of varied colors." Torquemada (14, XXIV) explains the custom: "They disfigured their faces in order that they might appear ferocious and fierce . . . they pierced the ears, making them large and did the same on the nose and lips, placing in the holes some jewels, worked in gold and silver. This was done to frighten the enemy in war and also for coquetry." Cardenas in his 1639 *relación* notes that the nose and ear ornaments "each represented an infernal and frightful figure which our conquistadores did not admire." Herrera (4, 10, IV) says: The women "filed their teeth, pierced the cartilege of their nostrils and placed there as an ornament an amber stone. They put earrings in their ears. . . ." Specimens of jade from the Cenote seem to have been used both for nose and for ear ornaments. The nose bead, nose button, and nose pendant featured in our discussion (Chaper IV) of the nationality of the figures in the bas-relief (figs. 512–28).

Religious defacements. These are all in the nature of a sacrifice, second only to that major one, the drowning, or putting to death by some other means, of men and women. This mutilation of parts of the body, found among the Maya of the Great period, was a very common Mexican custom and became prevalent in Yucatan especially in Tula-Toltec times. The references to it are many. In the *Relación* of Valladolid (RY, 2:27) is the passage: "This (copal) they offered to the idols and they cut themselves in many parts of their bodies and offered the blood."

There was hardly any part of the person that was overlooked. The cutting of the ears and the nose appears to have been most common. The extreme case seems to have been in Guatemala where Roman y Zamora (1, XVII) records that they drew blood from the arms, legs, thighs, nose, ears, tongue, penis, and "all the members of the body." To this should be added the boring of the cheeks and the lips and the cutting of the curve of the elbow and the forehead.

Landa reports (p. 113): "They offered sacrifices of their own blood, sometimes cutting all around the ears in strips [Gates translation] and they left them in this way as a sign. Other times they pierced their cheeks, at others their lower lips. Some times they scarify certain parts of their bodies, at others they pierced their tongues in a slanting direction from side to side and passed bits of straw through the holes with horrible suffering." Later (p. 155) he adds, "seven rather wide blades of a kind of grass called *ac*" were drawn through the perforated tongue.

Peter Martyr (Eng. ed., p. 242) relates what they did with the flowing blood: "The priests making a sign unto them, everyone taketh his razor, and turning their eyes unto the Idoll, they gash and wound their owne tongues, some thrust them through and the most part cut them so that the blood issueth forth in great abundance, all of them . . . rubbe the lippes and beard of that foolish idol."[44]

A final quotation from Landa (p. 113) states: "Others slit the superfluous part of the virile member leaving it as they did their ears, on account of which the general historian of the Indies [Gonzalo Fernandez de Oviedo y Valdes] was deceived saying that they practiced circumcision."

Lizana (1, V) describes this sacrifice as "cutting open the most delicate parts." In the testimony in regard to idolatry (Scholes and Adams, 1938, p. 58) we learn: "Before he was baptised (as a Christian) he sacrificed and drew certain blood from his genitals and threw it on the ground."[45]

Preparation of the Victim for Sacrifice

There seems no doubt but that the one to be offered to the gods was usually stripped of his clothes and anointed with a blue color (Landa, p. 117). It seems clear, as already noted, that blue is the color of sacrifice and associated both with the priests and with the persons and objects offered to the gods. Both the *nacom*, the sacrificer, and the *chacs* who hold the victim appear with bluish-black bodies in the representation of the rite on the fresco in the Temple of the Warriors at Chichen (fig. 395).

We continue with Landa's description (p. 118) of the dress of the martyr. They "put a *coroza* on his head." In another place this is described as of feathers and seems to refer to a headdress, a pointed cap, or a miter. The priest also "wore a sort of *coroza*," as we have seen. The same term is used to refer to "a coronet worn as a mark of infamy" and was imposed by the Catholic priests on the natives as a kind of punishment and mark of infidelity to the new religion. In the testimony in the trials of the idolaters (Scholes and Adams, 1938, p. 106) the victim of sacrifice is described as having his hands tied

behind his back, as "without a shirt, wearing breeches, his eyes covered with a white cloth."

4. ACTUAL SACRIFICE AT THE CENOTE

Procession

In four places, Landa speaks of a ceremonial progress along a road that had "been cleaned and adorned with arches and greens" (p. 140); "by a path which was very clean and ornamented, they went all together with their accustomed devotion . . ." (p. 144).

We are fortunate in having an account of the actual procession over the causeway to the Cenote. From the court in front of the Castillo, according to Lopez (Tozzer, 1941, p. 233), the priests "went in procession with her [the victim] by a paved causeway [fig. 1], all of slabs, which came to an end at a large and deep cenote which was there" (fig. 704). Accompanying the priests with their elaborate raiment and those to be sacrificed, there were undoubtedly musicians, singers, and dancers. The bas-reliefs at Chichen, even with little color left, give some idea of the splendor of the ancient processionals.

Shrine at the Brink of the Pool

On arrival at the platform beside the well, there must have been some ritual at the very edge of the well in the little temple or shrine there. Lopez says: "And they placed her in a shrine which was near there, where the priests withdrew with her. And they instructed her and informed her concerning what she was to ask there from their demons and false gods." Rosado Ojeda, who describes the ritual at the Cenote, suggests that they probably made the victim drunk in order to revive her.

The suggestion has already been made that this little building may formerly have been a sweat house so that both the priests and the sacrificial victims could obtain a ceremonial cleansing. A still further explanation for the use of the small shrine may be offered. On the island of Cozumel there was a famous hollow idol of Ix Chel (RY, 2:54). At the back was a door leading into the body of the image, where a priest entered: "The said old Indian spoke with the idol or with the demon which they said was inside of it; he replied to all which was asked and they learned from him all that which they wished and said old Indian, *Alquin,* returned the answer which the idol gave to them." Could the structure at the Cenote's edge have housed an idol of Ix Chel similar to that at Cozumel in one of the rooms, with another compartment for the priest?

Exhortation: Sermon: Prayer

As the final act before the victim was actually thrown into the well there seems, in some cases at least, to have been a homily directed to the one to be sacrificed. In the Sotuta testimony (*ibid.*, p. 106) it states: "Diego Pech, *cacique,* said to the one whom they wished to kill who was weeping, 'Take courage and console yourself since we are not doing you harm now nor are we casting you into a bad region nor into hell but into heaven and glory in the manner of our ancestors who were accustomed to do so.' "

In some of the sacrifices, where the heart was cut out, a sermon was preached (*ibid.*, 124):

> And after he was dead, he (Francisco Balam, the *Ah Kin*) made them a sermon to the effect that that was good and what they should do since they were their gods and those of their ancestors, and that they provided them with the necessary things and that they were not to believe what the friars told them and these which the friars say are idols are gods and in them we must believe and the friars are deceiving us. And when this sermon was finished they went to throw the said boy in a cenote.

Prayers accompanying the sacrifice are not uncommon. One of them (*ibid.*, p. 115) runs: "Lord god all powerful, provide us with what we need and give us water and that which is necessary for our sustenance."

Landa, who mentions the Cenote of Sacrifice six times in his *Relación,* stresses the fact that the rite was primarily for rain and was mainly carried out by throwing persons while still alive into the sink-hole. In one place (p. 19) he speaks of the "well into which they threw living men in sacrifice, as well as other beautiful things" and (p. 179), "Into this well they have had, and then had, the custom of throwing men alive as a sacrifice to the gods. . . ." The *Relación* of Sotuta (RY, 1: 97–98) tells us that Juan Cocom, for whose health we have already learned a sacrifice was made, but in vain, was succeeded by his brother Lorenzo who became *cacique* of Sotuta. He was one of the leaders in the reaction against the new religion and took part in a large number of human sacrifices. As late as May or June, 1562, he had carried three boys to Chichen Itza where he threw them alive into the cenote as a sacrifice.

Victim Thrown in Alive

In later times, at least, there were two main types of ritual at cenotes. The more uncommon, if we can believe the statistics based on the Sotuta-Homun testimony, was to throw the victims in alive and allow them to drown or, in a few cases, pull them out while still breathing. This sacrifice seems to have been limited to only nine out of 168 persons offered to the gods, according to the witnesses, and all nine were thrown into the Chichen Cenote.

Of the second type of immolation, whereby the victim was first put to death near the pool and then thrown into the water, there are only a few recorded instances at Chichen.

According to Landa (p. 180): ". . . They believed that they [the victims] did not die though they never saw them again," and (p. 120), "Sometimes they threw living victims into the well of Chichen Itza, believing that they would come out on the third day, although they never appeared again."

It will be remembered that the *Relación* of Valladolid is the main authority for the divinatory character of the Cenote sacrifice. The authors of this report were far less skeptical than Landa on the reappearance of the victim. Among the unbound women thrown into the pool, one was supposed to come out at midday and report on what she had learned below, "whether they would have a good or bad year" (RY, 2:25).

The same divinatory purpose is seen in the testimony of Alonso Chan given at Hocaba in 1562 (Scholes and Adams, 1938, p. 156) where we read:

> About four years ago, a little more or less . . . (they) told this witness to go with Francisco Cen of Hocaba and Gaspar Chuc of Huhi and Francisco Chan of Tixcamahel to Chichen Itza to take a boy called Ah Chuc, and when they arrived there to throw him in a cenote so that he might go to talk to their gods, and for it they gave this witness ten red beads as payment. . . . And he knows that the three Indians named above went to the said Chichen Itza and took the said boy, and this witness could not go with them because he fell ill. The said three Indians when they returned from the said place told him that they had thrown the said boy in the cenote as they had ordered them, and that they remained one day waiting to see if the said boy came out and that he had not come out. This witness declared that it is true that he went with the said three Indians to take the said boy to Chichen Itza and that when they had arrived there one of his companions, called Gaspar Chuc threw the said boy into the cenote, and that as he has said they waited to see if he was coming out to give them the reply of what their gods had told him in order to know whether there was to be any pestilence or much food or sterility, and that inasmuch as he did not come out, they returned to their pueblo and told the *caciques* that they had cast the said boy into the said cenote and that he had not come out.

That this was not a unique occasion seems clear from the testimony of Diego Tzab, given in Homun (*ibid.*, p. 149), where we learn that about five years ago, Francisco Namon Iuit and all the *caciques* of the province of Hocaba decided to send messengers to consult the "oracle of Chichen Itza."

Hunac Ceel Offers Himself for Sacrifice

In this discussion of the purposes for which human sacrifice was made at cenotes, we should remember the account of Hunac Ceel, head chief of Mayapan, who offered himself for immolation at the Chichen Cenote "to obtain the prophecy."

Victim Sacrificed; Dead Body Thrown In

The mass of testimony taken in 1562 speaks of the corpse being thrown into the well after the victim had been killed in some ceremonial manner. In the first example, however, the record simply says the boy was killed. We read, in the Sotuta testimony (*ibid.*, p. 149): "They carried, on order of the aforesaid (*caciques*), a boy whose name they did not know other than they took him from the house of the said Francisco Namon and he appeared to be about ten years old. And the said Francisco Namon ordered that the said messengers when they arrived at the Cenote of Sacrifice at Chichen Itza, there they should kill the boy and throw him into the said cenote."

According to the statistics gathered from the data offered by the witnesses in the idolatry trials, there were 168 people sacrificed. Of these, 113 were cast into some 15 cenotes after they had had their hearts extracted or been killed in some other ceremonial manner. As we have noted, no dead bodies are actually reported as having been thrown into the Chichen well.

Similarity with Aztec Ritual

There seems to be some rather striking points in common between the cenote rite for rain and some of the Aztec ceremonies in behalf of the Tlalocs or Tlaloque, the gods of rain. Human sacrifices in behalf of these deities occur in several of the different months of the year.

It is but natural to find certain ritualistic practices held in common by the two peoples, such as fasting, the garnishing of the temple, the mat or "blanket" of reeds or leaves, the extensive use of copal as incense, braziers of baked clay, mutilations of the ear and other parts of the body, and the dress of the priests.

In detail, there are far more striking similarities between the cenote rite and that held in the month Etzalqualiztli, the sixth in the Aztec year, as described by Sahagun (bk. 2, Bandelier ed., pp. 56, 88–97). Both are celebrated in behalf of the rain gods and take place "at the water's edge," both have copal "offered in pyramidal form," both use extensively blue color for human paint and for that of offerings, both use rubber as incense and have statues of the same material, both use jade ornaments and throw them together with the copal and rubber into the water. And finally there is the human sacrifice itself. In Yucatan usually the victim was thrown alive or dead into a cenote. Sometimes the heart alone was tossed into the water. Among the Aztec, the hearts of the sacrificed were put in a jar and taken by canoe to a place in the lake "within an enclosure of poles rammed in the bottom of the laguna." The high priest took "the bowl with the hearts, which he threw at once into the center of that space between the (circle of) stakes surrounding the submarine cave which served as a sink or sewer." In Yucatan, the Mexicanized Maya did not have the lake or a sewer into which they could place the ring of poles; they had a much better substitute for all this, a cenote. The contrary may have been the case, however. The Aztec, not having a well-like opening, made a substitute for this by driving a circle of poles into the lake.

It is perhaps worthwhile to quote Sahagun's description (Bandelier ed., pp. 95–96) of part of this ritual:

> The first ones they killed and who were clothed like the images with all their ornaments they called the origin of Tlalocs. . . . After this sacrifice the priests took all the offerings of paper, plumes, precious stones and chalchiuites, and carried them to a certain place in the lagune called Pantitlan. . . . Along with these objects they also took the hearts of the sacrified captives in a big earthenware jar painted blue and dyed with ulli (gum) on four sides. . . . Upon reaching Pantitlan with the hearts of the sacrificed men in the jar and all the other offerings, they entered a large canoe which belonged to the king, and began to row with great speed. The oars of this canoe were all painted blue speckled with ulli (gum). Arriving at Pantitlan they entered the canoe within an enclosure of poles rammed in the bottom of the lagune around this enclosure or sewer [*sumidero*] which was called *aohtoc.* Within this enclosure the priests began to play their trumpets and shells standing upright at the bow (prow) of the canoe, and handed to the high priest the bowl with the hearts, which they threw at once into the center of that space between the (circle of) stakes surrounding the submarine cave which served as sewer. They say that as soon as the hearts touched the water it became agitated and made waves and foam. After the hearts they also threw in the precious stones and the sacrificial paper . . . and also fastened a few of the chalchiuitl and precious stones on these papers. When all this had been attended to they rowed out of the enclosure, and one of the priests took an incense burner and, acting like a poltroon (or even fool), placed on it four of those papers they call *tetchuitl,* set fire to them and made the motion of offertory, which they were burning, towards the sewer [drain],[46] and then threw the incensory away. After this the canoe was headed landwards, and they began to row with all their might toward Tetamacalco, which is the landing place (stage) for the canoes. There they all bathed and then put the canoe away where it was their custom to keep it.
>
> All this was done from midnight until dawn. At daybreak and after everything was finished, the priests went to wash themselves . . . and they did it with water to get the blue paint off, only leaving the front of the head (forehead) untouched.

In another rite in behalf of the Tlalocs we learn: "Once this feast was over, all the papers and ornaments which had adorned the images of the tlalocs, all the vessels they had used for the guests, were carried to a gutter (sewer [or drain]) in the lagoon

of Mexico, called Pantitlan, and there they threw it all into the water" (1, XXI, Bandelier ed., p. 47).

The Pantitlan ("place of the flag") mentioned here is not the place named by Boturini in the account of the peregrination of the Aztec. Five localities separate this one from Chapultepec, where they reached the shore of Lake Texcoco. Peñafiel (1895, p. 205) describes the Pantitlan of Sahagun as a place in the lake where there is a spring located behind some rocks which is called Tepetetzinco, "a place where human beings were sacrificed and where they believed there was a cavern with a whirlpool (?) in the water." [47]

Survivals of the Cenote Cult

Vestiges of the ancient ritual still persist. The Chacs or rain gods, already described, are powerful factors in the religious life of some of the Maya today. They are believed to reside in cenotes, which, say Redfield and Villa (1934), are believed to be the doors to the sea as well as entrances to the underworld. From the cenotes come good and evil winds, hence "cenotes . . . have various connotations of the sacred and the dangerous" (p. 205). "One wonders whether the cenotes were anciently regarded not merely as associated with the rain gods, but as the mouths of hell, or whether the double connotation that they now have is a development since the conquest" (p. 374).

Three cenotes are mentioned in connection with an offering of *zaca* (*sacah*), a preparation of maize, to the god by the *h-men* or priest in behalf of rain (p. 349).

The cenotes, named below, have been mentioned in prayers in connection with the *U Hanli Col* ceremony: Nahcuche (near Dzitnup); X-Katbe near Chan Kom; Bubul, near Ebtun; Chanchen, east of Chichen Itza; Ahmula, near San Diego, near Cuncunul. Sinkanchac, near Chanchen; X-Tohil, near Nicteha, Sisal on X-kopteil road near Chan Kom and Chebalam, east of Chan Kom.

Plants or animals found near a cenote are sacred and are creatures of the rain gods. Hence frogs, toads, tortoises, and bats are sacred and must not be killed (pp. 207, 333).

The priest or *h-men* in the rituals invites the Chacs and the Balams of the four directions "in the four corners of the sky, in the four corners of the clouds." They are invoked by the formula, "Be thrice greeted," followed by the name of a village, an ancient ruin such as Coba or Chichen Itza or some cenote in the uninhabited bush (p. 137). One of the prayers runs, "Be thrice greeted when falls my word in the great east, in the audience-chamber of Coba, to the four great *Chaacs*, four great Balams . . . in the audience chamber, Chichen . . ." (p. 341).

The evil influences, coming from the underworld, a dark place filled with bad creatures, emerge through the cenotes. They are represented by animal carriers of sickness and death (p. 178). On the other hand, the death agonies end only "when someone draws a bucketful of water from the cenote into which their souls must pass on their way to hell" (p. 96).

"The cenotes are . . . the source of all of the evil winds. . . . When the *h-men* drives the evil winds from the body of a person whom they have come to occupy, he induces them to enter dishes of food, which he then empties some distance from the house, in order that the evil winds may return by way of a cenote to the sea" (p. 165).

When there is an unusual amount of sickness in a village, the *h-men* selected 13 men who, after reciting the Lord's Prayer, went to the four "entrances" of the village. Here, at each place, the priest buried the usual preventives against the evil winds: a piece of obsidian, crosses of wood, and a little salt. After this they returned and prayed and "all went to the cenote from which the village draws its water, and the *h-men* had the men throw into it thirteen crosses of xul wood, 'so that the winds would not come out of it again' " (p. 176).

Finally, "And the unfortunate who, fascinated by the deep waters of the cenote, hurls himself to destruction in them, passes through the bottom of the cenote directly into hell" (p. 205).

The Lacandon still make pilgrimages to the ancient ruins and to lakes in their vicinity. These are probably part of the same cult noted above. There are no cenotes in their country (Tozzer, 1907).

Shook (1952) describes a ceremony now carried out each year by the natives of Telchaquillo near Mayapan. It, also, is for the rain gods, the Chacs, and the deities of the forest; the winds and the milpas are also called upon. The usual features of Maya ritual are observed; the exclusion of women and children; contributions of food, drink, and gifts to the shaman; no sleep; and, evidently, compulsory drunkenness. Water is drawn from the cenote, turkeys and chickens are sacrificed, and some food is thrown into the well. The ritual is naturally called *"Cha chac."* Each community has its own particular place in the forest near their village where the ceremony is held. Only the people of Telchaquillo use the site of the Mayapan cenote.

5. HUMAN SACRIFICE OTHER THAN IN CENOTES

There seems little doubt that the observances connected with any type of human sacrifice held first place in the native religion. Lopez (Tozzer, 1941, p. 222) remarks: "The day when one of those sacrifices was offered was celebrated greatly and one of the most important and holy spectacles they thought they had. There was a special place for this and it was performed with much pomp and solemnity." (This cult is considered in Chapter III-8. Tozzer, 1941, pp. 318–21 gives an outline of the subject.)

There seems to have been a marked difference between the purpose of the cenote ritual and its Aztec counterpart on the one hand, and that of the more typical form of human sacrifice practiced in Mexico and, in general, in the later periods of Maya history. The cenote ritual was primarily a rite for rain whereas the more common Mexican method, the extraction of the heart, is usually connected with the sacrifice to Tonatiuh the sun god, the Jaguar-Eagle cult (Chapter III-9), or in honor of Tezcatlipoca or of Xipe.

Place of Sacrifice

The usual locality for the celebration of the ordinary ceremony seems to have been in front of the temple at the top of the pyramid, or in the court of the temple. Landa (p. 184) relates: "Each town had authority to sacrifice those whom the priest or *chilan* or lord thought best, and they had their public places in the temples for doing this, as if it were the most necessary thing in the world for the preservation of their public welfare."

Sacrificial stone. "In order to make these various sacrifices," continues Landa (p. 114), "there were in the courts of the temple several great beams [*maderos*] standing erect and ornamented with sculptures [48] and near the staircase of the temple they had a round wide pedestal, and in the center of it was a rather slender stone four or five palms high, standing erect. On the top of the staircases of the temple was another similar stone." He continues (p. 119), "Sometimes they made this sacrifice on the stone or high altar of the temple. . . ." [49]

In the testimony given at Homun (Scholes and Adams, 1938, p. 140) there are constant references to the altar stone. "They placed the shoulders (of the victim) over a stone in order to elevate the breast." In the testimony of Juan May (*ibid.*, p. 127) the body, as described above, rested on "some stones."

Landa has already been quoted regarding a stone standing erect near the staircase of the temple and another at the top of the stairs at the entrance to the holy place. Lothrop reports stones in the latter position at temples at Tulum and Tancah. These were undoubtedly stones of sacrifice. Morris (1931, pl. 9) shows a sacrificial stone near the entrance to the Temple of the Warriors at Chichen.[50] At this site, this place is more often occupied by the so-called chac mools or seated figures holding a bowl in the lap, probably for offerings.

Stone table or altar. The table or altar in the shrine room of the temple may have been a place for human sacrifice. Avendaño, who in 1696 was at Lake Peten, the last home of the Itza, writes of the hall of the king or Ah Canek as a vestibule to his house. "At the entrance of the said hall stands a large stone table more than two yards long and proportionally broad, placed on stone columns, with twelve seats of the same around it for the priests. This is the table of sacrifice which they call in their language *Mayactun"* (Means, 1917, p. 19).

Tribune. There is a possibility that the sacrifice was sometimes made on a platform or pyramid with no temple if we are to believe the account in the Lopez *Relación* of 1612 (Tozzer, 1941, p. 221):

> In Mexico and Guatemala and Yucatan and in all those provinces, they had, in addition to their temples, some very high edifices, dedicated and designed especially for the sacrifice of men, in the form of square pyramids which were very broad at the foundation and narrowed by degrees toward the top until there remained at the summit a crest or small square, which could accommodate a half dozen or a dozen men, and in the middle of it a pile of stones was erected, prolonged and sharp and tapered at the top. And they called this whole building *cu* in the Mexican language.

Christian church, etc. At the time of the resurgence of idolatry, much to the horror of the friars these acts frequently took place in the "Church of the new religion" (Scholes and Adams, 1938, p. 106) or churchyard and in the cemetery "at the foot of the cross" erected there (p. 96). Landa himself (p. 170) speaks of the renegades as "Violators of the church, sacrificing in them" and of their *chilans* and prophets of the demons "preaching to the simple people, diabolical and hellish things, telling them not to be Christians and that those were their true gods and the God of the Christians was not (their god) and they must not believe the friars who deceived them." In another passage (p. 171) we read, "Many of them (worshipped) within the Church of God into which they brought their idols." The gifts made to their gods were often offered in the Christian church itself. In the patio they offered dogs and other animals at the foot of a cross, burned crosses and extinguished them with the blood of the animals, and "each Sunday copal was burned in the church to the demons" (p. 133).

In a few cases there are references to the rite taking place in the house of the *cacique*. One example appears in the testimony given in 1562 (p. 214): "The said Juan Cauich told Francisco Can and Juan Dzul, who were also prisoners and who are citizens and *principales* of this said pueblo, that he and the six mentioned above had raised false testimony and had said when they examined them that they had sacrificed certain children in the church and in the cemetery and in the forests outside the pueblo."

In a description of a ritual at Chichen Itza (p. 123), the hearts of two boys were removed in the *monte*, after which the bodies and the hearts were thrown into the cenote. The sacrifice also often took place in a *milpa* (pp. 95, 99, 110).

Secrecy Demanded in Later Times

In another bit of evidence (p. 152) there is a direct statement that the rite formerly done "publicly in the pueblos was now done in the *milpas* and in the *montes*." Throughout the testimony of idolatry in post-Spanish times an admonition from the *cacique* or the governor often follows the description of a sacrifice. For example, in one place (p. 157) we read, "And after they had had food and drink, the said Francisco Namon, governor, spoke to all and told them that they should keep secret that which had been done and not reveal it."

Directors and Manipulators

In the discussion of Maya priests, we noted the *chilans* directing the sacrifice, the four Chacs holding the victim by the arms and legs, and the *nacom* actually carrying out the sacrifice. According to the testimony on idolatry, taken in 1562, we learn that the priest, *Ah kin*, who was always regarded with favor, sometimes performed the actual sacrifice. *Caciques, principales,* and schoolmasters also took the leading part in the rite.

Removal of the Heart

When human sacrifice is mentioned in Mexico and, very generally, in the late period of Maya history, it is generally understood to refer to the removal of the heart of the victim. This was the usual form of immolation in the extensive area stretching from Nicaragua in the south to central Mexico in the north. An excellent account of this type of sacrifice by the Maya is given by Landa (p. 118):

> If the heart of the victim was to be taken out, they led him with a great show and company of people into the court of the temple, and having smeared him with blue and put on a *coroza*, they brought him up to the round altar, which was the place of sacrifice, and after the priest and his officials had anointed the stone with a blue color, and by purifying the temple drove out the evil spirit, the Chacs seized the poor victim, and placed him very quickly on his back upon that stone, and all four held him by the legs and arms, so that they divided him in the middle.

With the Chacs holding the martyr by the legs, the next step was the actual sacrifice. Landa (p. 119) continues his account:

> At this came the executioner, the *nacom*, with a knife of stone, and struck him with great skill and cruelty a blow between the ribs of his left side under the nipple, and he at once plunged his hand in there and seized the heart like a raging tiger and snatched it out alive and, having placed it upon a plate, he gave it to the priest, who went very quickly and anointed the faces of the idols with that fresh blood.

From the Bishop (p. 113) we learn that the office of *nacom*, which was held for life, did not bring much honor with it.[51]

One further description of the actual sacrifice will be given from the Lopez *Relación* of 1612 (Tozzer, 1941, p. 221):

> And they took up there [on the pyramid] the unfortunate man whom they were going to sacrifice and the priest laid him naked across that pile of stone which we mentioned supine and face up. When he had been placed thus the priest or the master of that ceremony approached and with an extremely sharp flint, because there were no other knives there, he opened him with all the quickness in the world on the side of the heart and tore it out and threw it on high, offering it to the gods; all this, as I have said, with so much ease and skill that his quickness was an extraordinary thing." [52]

Sacrificial knife. The flint knife used for the actual operation is given some notice in the accounts of the Yucatan ritual. In a statement concerning the lack of metals in Yucatan we learn from the Bishop (p. 186), "God provided them with a ridge of flint near the range of hills . . . from which they got good stones"; from these they used to make, among other things, "the knives for the sacrifices (of which the priest kept a good supply)." [53]

In the Homun testimony (Scholes and Adams, 1938, p. 142) the knife is called *u kab ku,* "the arm of the god." Elsewhere (p. 106), before the sacrifice takes place, a large flint knife whose handle is wrapped in a white cloth is laid "upon the mat" of leaves.

To some of the witnesses in the trials for idolatry, there seems to have been a distinction between *navajón de pedernal,* a flint knife, and a *cuchillo.* It is probable that the latter was of Spanish manufacture. We read (p. 75), "And Diego Hoyl and Diego Tzotz were the ones who took the knife of flint to open the boys and they opened one of them with a knife (*cuchillo*). They were alive. And they took out their hearts and gave them to the *ah-kin,* Francisco Uicab. . . ."

In the following testimony of a sacrifice (pp. 106–07), the scene takes place in the Christian church with the idols playing a part.

> [They] took ten idols which they had brought from the *milpa* . . . and the other appurtenances used in sacrifice and went with them to the church. And when they had arrived, without making a prayer nor bowing before the altar, they went and placed the idols in a row. . . . And two *ah kines* of those who were there took two large candles. . . . And all sat down on some small benches and ordered that the Indian who was seated near the altar should come. . . . [The *cacique* then told the boy who was weeping that he must take courage.] And the said youth whom they wished to kill replied to this, "Do what you wish, for God is in heaven who will help me." And then Gaspar Chim, *ah-kin,* said, "Untie him before it dawns so that people may not come, and let what must be done be done." And so they untied the said youth and threw him on the floor upon the mat. . . . And the *ah-kines* took the youth and threw him down face up and held him by the feet and by the hands. And Pedro Euan approached and took the flint knife and opened with it his left side near the heart, and having opened him, he seized the heart and cut it from the entrails with the same knife.

The disposal of the extracted heart and of the body itself is discussed below.

Arrow Sacrifice

The bow and arrow may have been brought into the country either by the Mexicans or by the Itza. In any case, it is a late introduction into Yucatan. Its use in human sacrifice is found from Mexico northward to the Great Plains. The preparation for this rite consisted of fastening the naked victim by his hands and feet to a frame or pole, painting his body blue with a target in white over the heart, and putting a *coroza* on his head. Says Landa (p. 117):

> . . . when the day arrived, they all came together in the court of the temple. . . . When they had reached the victim, all armed with bows and arrows, danced a solemn dance with him around the stake, and while dancing they put him up on it and bound him to it all of them keeping on dancing and gazing at him. The foul priest in vestments went up and wounded the victim with an arrow in the parts of shame, whether it was a man or woman, and drew blood and came down and anointed the faces of the idol with it. And making a certain sign to the dancers, they began one after another to shoot, as they passed rapidly before him, still dancing, at his heart, which had been marked beforehand with a white mark. And in this way they made his whole chest one point like a hedgehog of arrows.

The rite evidently ended by taking the victim into the court of the temple where his heart was removed.[54]

The arrow sacrifice is described in a "Cancion de la Danza del Arquero Fletchador," a Maya poem translated by Barrera Vasquez (1944), part of which is given by Barrera Vasquez and Rendon (1948, p. 182) in connection with a reference in one of the Katun prophecies to "the destruction of the milpas of the Itza, the water sorcerer."

The same sort of arrow sacrifice seems to have taken place at Campeche at the time of the arrival there of the first Spaniards. Torquemada (11, XXI) records: "Three beams stood there driven into the soil and three others which crossed them, and many darts and arrows, wet and stained with blood, scattered on the soil"; and (4, III) "All the place was full of men who had been sacrificed according to the old usage of all these lands."

Lopez (Tozzer, 1941, p. 225) mentions the fact that "the Indians of the New Kingdom . . . in time of need . . . shoot with arrows some children. . . , placing them on high poles, tying them there and shooting many arrows into them until they died."

In the Sotuta and Homun testimony (Scholes and Adams, 1938, p. 158) there are several references to cutting out the heart of the victim while he or she is tied to a ladder. The most revolting sacrifice was described (p. 146) by one Lorenzo Couoh: "And this witness saw Juan Iuit, *cacique* of Hoctun, kill the other girl. She was tied to a pole which they had thrust into the ground there, her shoulders lashed to the pole and her hands tied behind. With a pole of *pochote* (wood), full of natural thorns, he hit her in the breasts as many times as was necessary to kill her."

Crucifixion

As the result of Christian teaching, the tying of a victim was readily transferred from a rack, ladder, or pole to a cross. The person to be sacrificed was fastened or nailed to a wooden cross. Sometimes the body was removed from the cross before the heart was extracted; at other times the cross with the body still on it was thrown into the local cenote. In some cases great stones were attached to the cross to make it sink.[55]

Of the 168 people sacrificed, according to the data collected in the trials, 29 were crucified in the mode described above. Of these 16 were male and 13 female.

There is an interesting document (Scholes and Adams, 1938, p. 179) which states that in 1561 a newborn infant was evidently crucified in the pueblo of Hunacti, but, at the time, it was reported that the child had been born dead. Fray Pedro de Ciudad Rodrigo, guardian of the Mani monastery, expressed his dilemma regarding the matter as it was reported to him that the infant had been born with the *stigmata.* He felt far from sure about this but he was not willing to state at the time that the signs on the child were the result of its crucifixion by the natives in connection with their idolatry. Three years later Landa, in giving testimony in Spain, refers to this case as clearly a crucifixion and denounces Fray Pedro as stupid in thinking that the marks on the body could have been "a natural thing."

A detailed description of human sacrifice by crucifixion is given in the testimony of Francisco Camal, taken in 1562, where (p. 124) we learn:

> This witness saw how about three months ago, a little more or less, another sacrifice was made within the cemetery of the church at the foot of a cross to some idols and demons which were there, in which they killed a boy who was called Ah Tuz, whom, in order to sacrifice and kill him, they crucified and placed on a large cross, and they nailed his hands and raised him on high. And they lowered him again and thus, on the cross, alive as he was, Luis Nauat went and opened him and took out his heart and gave it to the *Ah-Kin,* Francisco Balam, who offered it to the demons and idols which were there.

Another crucifixion of two girls is given in the testimony of Antonio Pech (78–79):

> And he saw how the said girls were placed on two crosses (and) tied. And the above mentioned told him to keep silent and not to say anything in order that the friars should not know about it and therefore this witness with the other companions who saw it have been silent for fear. And (the girls) being placed on the cross, the *ah kines* and the deceased ones (Juan and Lorenzo Cocom) said, "Let these girls die crucified as did Jesus Christ, he who they said was our Lord, but we do not know if this is so." And afterwards in saying this, they lowered them from the cross, unbound them, opened them and took out the hearts and the *ah kines* offered them to the demons as anciently they were accustomed to do . . . and afterwards they carried the girls to throw them into the said cenote.

The parallel between the crucifixion of the Christian Church and that of the natives is further brought out by the fact that the pagan rite was sometimes held in Holy Week (p. 118) and and the name of Jesus Christ was placed over the victim (p. 116). Along the same lines, the testimony of Francisco Kantun (p. 119), schoolmaster of Usil, mentions another crucifixion:

> And in addition to this sacrifice this witness saw that fifteen days later, which was after *Pascua,* all who have been mentioned assembled and performed another sacrifice in the church itself, and the idols were there. In this sacrifice they crucified two more boys named Euan, whom the said Juan Pech and Melchor Be placed on the crosses. And so placed on the cross they opened them, saying to those who were there, "You see here the figure of Jesus Christ and we offer to our gods the hearts of these who are crucified." And they threw the bodies in the cenote of Tabi in the same way as the others.

Landa was directly concerned with the punishment for those who carried out these crucifixions, according to the testimony of Bishop Toral (*ibid.,* p. 198):

> He [Landa] has instituted certain proceedings against the persons most guilty of the evils which exist in these provinces, who are some *caciques* and lords who have caused them to be committed and other dogmatizers and preachers of false and abominable doctrines and other blasphemers of the Divine Name and evangelical teaching to sacrificers of innocents placed on crosses, giving them the name of Christ, our Redeemer, and then taking out their hearts, in derision and scorn of His (Divine) Majesty and offering them to the demons which they took to the church in order to do what has been said; all of which they have done after being baptized and very well instructed in the matters of our Holy Catholic Faith.

Expiation by a Scapegoat

In Guatemala, after a kind of communal confession, a person was sometimes killed as representing the whole community and thus he expiated the sins of the entire town. Lopez (Tozzer, 1941, p. 226) explains this custom.

> . . . every time that many sins were known to exist in the public and their idols and false gods were angry on account of them, the whole pueblo gathered in observation of this ceremony and they sought among them an old woman, the most decrepit and advanced in years they could find, and they took her out into the country, the whole town accompanying her, and they looked for a cross-road or meeting place of many roads and seated her there, and hemmed in and surrounded by all, in loud voices and all at once each one confessed and publicly told his sins and guilts. And when that shouted and tumultuous confession was finished, the priest drew near with a great stone and struck the poor woman so many blows on the head that he killed her, and when she was dead the whole town and all the confessants approached and covered her with stones in a moment, erecting and raising over her a great tomb, and with this the sacrifice and confession came to an end and they returned to their homes completely convinced that now all their sins were taken away and that the town remained purified and clean on account of that sacrifice and the poor old woman bore the sins of all on her shoulders to represent them there to their gods to appease their anger. And this was the kind of confession of those Indians which, carefully considered, seems to bear some resemblance to that sacrifice and confession which is mentioned and discussed in chapter 16 of Leviticus, which under the old law was made to the scapegoat.

Other Forms of Sacrifice

In one of the declarations in the idolatry trials (Scholes and Adams, 1938, p. 137) we are told: "At this time the victim was sometimes killed by decapitation before extracting the heart." Another method (Landa, p. 143) was "by throwing down the bound victim from the heights on to the stones," after which his heart was extracted "with great quickness." "Throwing the body down a precipice" (p. 184) seems similar.[56] In the Landa account of "those two wicked sanctuaries of Chichen Itza and Cozumel" we learn that in one place they threw the victims down a precipice and, in the other, they took out the hearts. It may possibly be that "throwing down a precipice" refers to the actual sacrifice at the Cenote with its perpendicular walls. In some cases when the act was done "on the stone and high altar" before the temple on top of a pyramid, "they threw down the body, now dead, (so that it rolled) down the steps" (Landa, p. 119).[57]

When there was self-immolation, according to Lopez (Tozzer, 1941, p. 222), the victim "threw himself down there below, dashing himself to pieces."

A variation of the arrow sacrifice appears in a reference in the Chumayel (p. 67), "Then Hapay Can was brought to

Chemchan. He was pierced (by an arrow) when he arrived at the bloody wall there at Uxmal." Roys suggests that his head was possibly "pierced by a stake and the reference is to a *tzompantli*" or skull rack.

Several other forms of putting individuals to death for ceremonial purposes are mentioned in the Aztec accounts but do not seem to have been practiced by the Maya. There is no evidence that the gladiatorial combat at the end of the ritual of the Jaguar-Eagle cult was carried out in Yucatan. Nor do we find any reference to the burning alive of captives in the tenth and other months of the Aztec year (Sahagun, 2, Bandelier ed., pp. 109–11, 120).

Disposal of the Heart

The main feature of the most common form of human sacrifice was the removal of the victim's heart. It and the blood shed in its extraction were of great ceremonial importance.

Heart in mouth of idol. After the *nacom* had extracted the heart, the common procedure seems to have been for him to hand it to a priest who then anoints the idols with the blood of the one sacrificed.

In the Homun investigations (Scholes and Adams, 1938, p. 107), the custom is explained as follows:

> And he gave the said heart to the *ah-kin*, Gaspar Chim, who raised the said heart on high, having first given it two cuts in the form of a cross. And this witness does not know who it was who took it from there and put it in the mouth of the largest of the idols which was there, which was called Itzamna. And he gave it the said cuts on the point of the heart. And having done this they took the blood of the said youth whom they had killed thus in a large *jicara* and then they took the body, the heart and the blood of the said youth whom they had thus killed, and the idols, and all went into the house of the *cacique*, and they took it all there. . . .

In another place (p. 157) there is a reference to the hearts being placed in the mouths of 20 clay idols and also (p. 160) on the snouts (*hocicos*) of 40 clay and two wooden idols.[58]

Heart on a plate. In many cases, the *nacom* "seized the heart like a raging tiger and snatched it out alive and, having placed it on a plate, he gave it to the priest who went very quickly and anointed the faces of the idol." In the Homun testimony (Scholes and Adams, 1938, pp. 137, 140) the same treatment of the heart is recorded. In some cases, as mentioned by the Bishop (p. 143): "Those officials seized him [the victim] and took out his heart with great quickness and carried it to the new idol, and offered it to him between two platters." As noted before, "The bowls in which they place the said heart they call *zuhuy lac*, which in the Spanish language means 'virgins' " (Scholes and Adams, 1938, p. 143).[59]

Heart burned. In several instances the heart seemed to have been disposed of by fire, probably "in the bowls of the idols," which may mean the braziers. In the Sotuta account (Scholes and Adams, 1938, p. 102): "They took the idols to the church and brought them from Chichen Itza, Juan Be opened the boys, and gave the hearts to Francisco Chuc, the *ah kin*, who smeared the idols with the blood of those sacrificed, burned the hearts and offered them to the idols."

Francisco Uicab (*ibid.*, p. 75) did much the same, burning the hearts, worshipping the idols with them, and smearing the blood on the idols.

Heart thrown into a cenote. The previous accounts of the treatment of the hearts are well summed up in the following Hocaba-Homun testimony (*ibid.*, p. 123) of Francisco Camal:

> And he saw that Juan Chuil and Luis Nauat, *principales* of the said pueblo, opened the said boys and took out their hearts and gave them to the *ah kines* and these *ah kines* received them and burned (them) and offered them to the idols. And he told them that that was good. . . . [Describing the same sacrifice, he continues,] And although the *cacique* was not there he ordered the said sacrifice made so that all might live many years. And upon finishing the said sacrifice, they threw the said boys, together with the hearts into the said cenote of Chichen Itza.[60]

Preservation of the Head

In no account of human sacrifice among the Maya of Yucatan is there any definite reference to the Mexican custom of assembling the heads of those put to death as gifts to the gods.

Tzompantli. In the court of many of the Aztec temples (fig. 417) there was a rack called a *tzompantli*, which held the skulls of those victims who had been offered in sacrifice. A substitute for this sometimes seems to have been a stone altar, the sides of which were carved or painted with alternating skulls and crossed bones.

At Chichen Itza, Mausoleum II (fig. 419), north of Mausoleum I in the court before the Castillo, is a representation in stone of one of these *tzompantli*. This structure is directly associated with Mausoleums I and III and all are undoubtedly connected with the Jaguar-Eagle cult of the dead warriors (Chapter III-9).

In the preceding discussion of arrow sacrifice we noted the Chumayel account of Hapay Can, who was pierced by an arrow, and Roys's suggestion that it possibly referred to the use of *tzompantli*.

Noted individuals. There are references to the *post mortem* preservation of the head of prominent persons. The most striking of these is by Landa (p. 131): "They used to cut off the heads of the old lords of Cocom, when they died, and after cooking them they cleaned off the flesh, and then sawed off half the crown on the back, leaving the front part with the jaws and teeth. Then they replaced the flesh which was gone from these half-skulls by a kind of bitumen, and gave them a perfect appearance characteristic of those whose skulls they were." [61]

In Cauac years. According to the Maya calendar, one of four of the 20 days always began the year. These four days were called Year Bearers or Dominical Days, and each carried with it good or bad implications for the year in which it was the initial day. Thompson (1950, p. 63) writes:

> The powers wielded by the succeeding rulers of the division of time affected life to its very roots: the ruler of one day was a beneficent deity who brought happiness and prosperity with him; the lord of another day was a malevolent power, whose passage was fraught with misery and evil. The same subjection of man to the caprice of each god extended to that of each god of a year. . . . Years which were the burdens of Kan and Muluc were favorable; those borne by Ix and Cauac were calamitous. [See Tozzer, 1941, p. 284.]

The evil influence of the last year becomes evident in the rites celebrated in its behalf where a skull and a dead man play a part. The Bishop (pp. 147–48) tells us: ". . . they took the image on a standard, called *yax ek*, put upon the shoulders of the image a skull and a dead man, and on top of all a carnivorous bird . . . as a sign of great mortality; for they considered this a very evil year. . . . This year . . . they regarded as unfortunate, since they said that many hot suns would destroy the fields of maize, and that the many ants and birds would devour the seeds, which they sowed." [62]

Trophy heads and bones. In addition to the preservation of the head of important individuals as memorials, there was a custom, among aboriginal populations from southern Peru northward, of using human heads as trophies. This practice prevailed in ancient times through Middle America and into North America. Archæological investigations yield human skulls that are the result of decapitation. It is impossible to determine how many of the examples found are the heads of those ceremonially sacrificed or of those captured or slain in battle.

Landa has two definite references to trophies. The first (p. 120) runs: "If the victims were slaves captured in war, their master took their bones, to use them as a trophy in their dances as tokens of victory." Again (p. 123), "After the victory they took the jaws off the dead bodies and with the flesh cleaned off, they put them on their arms." [63]

Brasseur de Bourbourg (1864, pp. 168–71) shows that, in Guatemala the head, arms, and leg bones of a hero are sometimes preserved as a memorial. He writes:

> In the Quiche drama of "Rabinal-Achi," which I got together and translated at Rabinal in Guatemala, one of the heroes, Quiche-Achi, makes allusion to this custom in a poetical manner: "Now see," he cries, "what my word says in the face of heaven, in the face of earth: Are those your table and your cup? But it is the head of my father which I see and which I am looking at. Would it not be possible that they should do the same thing in my case, and should fashion thus the bone of my forehead, the skull of my head, that they should carve it and paint it in colors inside and out? Then when they shall come down into my mountains and into my valleys . . . my vassals shall say: 'There is the head of our ancestor, of our father.' Thus my sons and my vassals shall say: 'There is the head of our ancestor, of our father.' Thus my sons and my vassals will repeat it in memory of me, as long as the sun shall shine. . . . See then the bone of my arm, see then it is a rod mounted in silver, the noise of which will resound, as it excites the tumult within the walls of the great castle; see the bone of my leg which will become the beater of the *teponouoz* [*teponaztli*] and of the drum, and which will make the heaven and earth tremble." [64]

There seems to be a close connection between heads evidently severed as the result of a sacrifice and those resulting from the ball game. On the two longitudinal benches at the Chichen Ball Court (fig. 474) are three representations of groups composed of an executioner, a headless victim with serpents coming out of his neck, and a person carrying his head (see Chapter III-10).

One of the best examples of trophy heads is a figurine with a high copper content found at Coclé, Panama, by Lothrop (1937, p. 166, fig. 150) and recognized by him as probably coming from Colombia. It consists of the figures of two warriors, carrying between them three trophy heads.

Cremation: Disposal of the Ashes

Preceding the passage on the treatment of the head of the Cocom, Landa (p. 130) mentions several customs relating to the disposal of the dead, two of which seem to be substitutes for the actual preservation of the skull.

Urns. He states that the bodies of deceased "nobles and persons of very high rank" and "of high esteem" were burned, their ashes placed in urns, and temples built over them.[65] Landa writes of an urn at Izamal used for cremation. This seems to have interested him greatly as he mentions it in four places. One of these (pp. 18–19) runs: "While the friar, the author of this book, was in this country, they discovered in a building [in Izamal] which they destroyed, a great urn with three handles with silver-colored flames painted outside and enclosing the ashes of a burned body, with some arms and leg bones of a marvellous size, and three fine beads of stone of the same kind which the Indians use for money."

In another place (p. 131) he writes of statues with the ashes "all of which they kept in the oratories of their houses with the idols, holding them in great reverence and respect. And on all the days of their festivals and rejoicings, they made offerings of food to them, so that food should not fail them in the other life, where they thought that their souls reposed, and where their gifts were of use to them."

At Chichen, in the back of one of the atlantean altar figures formerly in the Temple of the Jaguars, is a hole which was filled with charcoal and ashes. This may be similar to one of Landa's "statues" (Seler, 5:275, pl. 20, no. 4).

Wooden statues. Another method of disposing of cremated remains was to enclose the ashes in wooden figures. Landa (p. 131) relates: "The rest of the people of position made for their fathers wooden statues of which the back was left hollow, and they then burned a part of the body and placed its ashes there, and plugged it up; afterwards they stripped off the dead body the skin of the back of the head and stuck it over this place and they buried the rest as they were wont to do. They preserved these statues with a great deal of veneration among their idols." [66]

Treatment of the Body

There were often intermediate rites between the actual sacrifice and the final disposition of the victim's body, which was usually thrown into a cenote or buried. Cremation has already been mentioned.

Flaying. After the heart was removed "on the stone and high altar of the temple," as Landa (p. 119) describes it: ". . . then they threw the body, now dead, rolling down the steps. The officials below took it and flayed it whole, taking off all the skin with the exception of the feet and hands, and the priest, all bare, covered himself, stripped naked as he was, and with that skin and the others danced with him. And this was considered as a thing of great solemnity amongst them."

Herrera (4, 10, IV) speaks of throwing the bodies down the steps and flaying them, after which the priest put on the skin and danced, and they burned the body in the patio of the temple.

Xipe rite. Dancing in the flayed skin of those sacrificed suggests at once the Mexican rites in behalf of their god Xipe Totec. In the Maya pantheon there does not seem to be any mention or representation of this deity.[67]

A partial flaying is described in the papers dealing with the *entrada* of Villa Vicencio into the Lacandon country in 1586. There is an account of finding "on the road a place of sacrifices together with the body of a boy about five years of age. He had had his breast cut open down to the middle, and it seemed that his heart had been removed through that opening. 'His right foot and his feet [*sic*] had been burned, and he had three wounds, as though made by lance thrusts, in his right foot, and

the left arm stripped entirely of flesh from wrist to elbow, and with the bones of the arm sticking out' " (Thompson, 1952).

Disposal of the Body

After the removal of the heart and the treatment of the body, the final act was the disposition of the remains of the victim. This took various forms.

Cannibalism: ceremonial and otherwise. After describing the flaying of these sacrificed, the Bishop continues (p. 120): "The custom was usually to bury [the body] in the court of the temple . . . or else they ate them, dividing him up among those who had arrived (first) and the lords, and the hands, feet and head were reserved for the priest and his officials, and they considered those who were sacrificed as holy."

Herrera (4, 10, IV) follows Landa: "They flayed them . . . sometimes they were eaten, although those of Yucatan were not such great eaters of human flesh." He also writes of the Maya-speaking Chontal as "sacrificing men and eating them, whereon they followed the example of the Mexicans."

That ceremonial cannibalism was not directed solely toward those who had been flayed seems clear as Lopez (Tozzer, 1941, p. 222) includes among those whose bodies were partially eaten ones who offered themselves for sacrifice, "one of the most important and holy spectacles," as already mentioned. He describes the victim as hurling himself down below, "dashing himself to pieces," and adds "the people at once hastening with great devotion to take a piece of that flesh in order to eat it, as a thing they held in great devotion and veneration."

This ritualistic consumption of human flesh was not true cannibalism, if we can believe Las Casas (1875–76 ed., 3, CXVII), who notes that they did not practice wholesale cannibalism. Several of the authors in the *Relaciónes* (RY, 1:149) quite naturally deny it. One writes, "These natives did not eat human flesh." Ciudad Real in his *Relación* on Ponce (1932 ed., p. 314) also writes, "They did not eat human flesh which was very common in Mexico and in many other provinces, and even nowadays (1588) they do it in some." [68]

There is no question but that the eating of human flesh in Central and South America was not limited to the ceremonial consumption of parts of the body of the victim of sacrifice. Lopez gives as the title of Chapter XX in his *Relación* (Tozzer, 1941, p. 221): "Concerning the false religion and idolatry of the Occidental Indians and their abominable and savage use and custom of eating human flesh and of hunting and killing one another for this purpose, and concerning their bloody and horrible sacrifices in which they killed and sacrificed men to their gods." In the body of his treatise (p. 227) he seems to make a distinction between the Mexicans, Guatemalans, and probably Yucatecans on the one hand, and some South American tribes on the other. He reports: "The custom of eating human flesh was so ingrained and accepted among those barbarian peoples that in very many parts and regions the nefarious custom of killing men described was not to make a sacrifice and oblation of them to their gods as the Mexicans and Guatemalans and many others did it, but purely and solely for this end of satisfying and feeding their appetite for eating human flesh and having it for their sustenance." In another place (p. 222), referring to Mexico, he writes: "The sacrificed bodies of those captives and prisoners were not left useless and to no purpose, because after what concerned their religion had been fulfilled, their flesh was weighed and sold publicly for human sustenance as if they were sheep or pigs or other animals, for it is meat they crave and they ate it with great pleasure."

There are several references to the potential victims of sacrifice being kept in confinement, presumably to increase their value to the god, as well as to those who, in many cases, would consume them.

In the *Relación* on Ponce (1875 ed., 1:473–75) there is an account of this custom: "That year, 1586, some of these (Lacandon) set out for the mainland with their arms which are bows and arrows . . . they carried as captives nine or ten persons, young and old and placed (them) on their island where they were fed and fattened as if they were pigs in order to offer them one by one for sacrifice to the demon in their fiestas and rituals."

Valdivia and some companions. Landa (p. 8) gives an excellent account of certain aspects of the ill-fated Valdivia expedition: "These wretched men fell into the hands of a wicked *cacique*, who sacrificed Valdivia and four other companions to his idols, and gave their bodies to his people for a feast. He spared Aguilar and Guerrero and five or six others to fatten them."

Cervantes de Salazar (Tozzer, 1941, p. 236) describes the same event in more detail, in the words of Aguilar himself: "On the way seven of our men died of hunger, and the rest falling into the power of a cruel lord, he sacrificed Valdivia and four others, and, offering them to his idols, afterwards ate them, making a feast according to the custom of the country; and I, together with six others, remained in a coop, in order that for another festival that was approaching, being fatter, we might solemnize their banquet with our flesh."

Gaspar Antonio Chi (Tozzer, 1941, p. 231, after Roys) writes, "There was another prison like a (cage made of) cedar wood painted (various) colors, in which they put (children) and others of greater age condemned to death and for sacrifice."

Burial and other methods. In two cases (Scholes and Adams, 1938, pp. 137, 155), the cadaver was wrapped in a *manta*, weighted with a stone, and thrown into the well.

Burial took place in the temple, in the Christian church, churchyard, or cemetery. It naturally aroused special horror among the Franciscans that idolaters should have been buried in consecrated ground. There are several references in the testimony which shows that the bones of those who were suspected of having been followers of the heathen religion and who were buried in the churchyards, were exhumed and burned, and the ashes evidently disposed of in unconsecrated ground. Also, especially in the testimony taken at the trials, the body was left or buried in the *monte* (pp. 159, 160), thrown into dry wells (p. 87), into caves with water (p. 162) and caves without water (p. 146), or, according to one witness, carried with the idols and the heart to the house of the *caciques* but "he does not know what they did with it."

The statistics gathered from the testimony of the Sotuta and Homun trials are shown in Table 27.

Human hearts placed between two plates, and bones and skulls placed between two dishes have already been described. Brainerd reports findings in the Cenote of Chun Mul at Mayapan a polycrome bowl in which there were human bones.

After the actual sacrifices had been made and the heart and the body of the victim properly disposed of, the final acts of the ritual seem to have been fairly uniform.

Sermon

In general there seems to have been an admonition by the *ah kin*. The Bishop (p. 154) remarks: "And he preached to them a little, recommending to them the remedies for their ills, and he assigned this festival for the following year. . . ."

In one case a divination preceded the talk. We read (Landa, p. 153): ". . . the most learned of the priests opened a book and looked at the prognostics of that year . . . and he preached to them a little [sermon], recommending to them the remedies for their ills. . . ." At another time (p. 161), "The good priest then preached a little on the excellence of the profession of making new gods. . . . After this they ate very well and got drunk still more freely."

In the Sotuta testimony (Scholes and Adams, 1938, pp. 106–07), the *cacique* endeavored to calm the feelings of a weeping youth who was about to be sacrificed with the following: "Take courage and console yourself since we are not doing you harm now nor are we casting you into a bad region nor into hell but into heaven and glory in the manner of our ancestors who were accustomed to do so."

In one instance the priest wisely postponed the sermon until after the feasting. Landa reports (p. 165): "On the next day, after they had digested the wine, all the lords and priests of the towns, who had drunk deeply and had remained there in the house of the lord, came together, and he (probably the *Nacom*) distributed among them a great quantity of their incense, which he had there ready and blessed by those silly priests, and at this meeting he made them a long discourse."

Dancing

Another concluding act in many of the rituals was dancing. The men usually performed alone; the old women had their own dance. In those references in Landa (p. 120) which concern human sacrifice, there is an account of the priest who wears the flayed skin while dancing and others "danced with him." In the rite where the martyr was shot with arrows, he writes (p. 118): "When they had reached the victim, . . . [they] danced a solemn dance with him around the stake, and while dancing they put him up on it and bound him to it, all of them keeping on dancing and gazing at him."

There was one erotic dance (Naual) in which both the men and women engaged. In the *Relación* of Campocolche (RY, 2:185), after describing the fire-walking rite, the author goes on: "There were many other dances of which there would be more than one thousand kinds and they considered this as an extremely important thing and there assembled to see it, so great a number of people that more than fifteen thousand Indians would gather and they came from more than thirty leagues to see it, because, as I say, they considered it as an extremely important affair." Tozzer (1941, pp. 332–33) gives details of dances.

Musical instruments. Most of these are described by Landa p. 93):

> They had little drums which they play with their hand, and another drum made of hollow wood with a heavy and sad sound. They beat it with rather a long stick with a certain gum [rubber; *kik*, in Maya] from a tree at the end of it, and they have long thin trumpets of hollow wood with long twisted gourds at the ends. And they have another instrument made of a whole tortoise with its shells, and having taken out the flesh, they strike it with the palm of the hand. The sound is doleful and sad. They have whistles made of the leg bones of deer; great conch shells and flutes made of reeds, and with these instruments they make music for the dancers.[69]

Feasting and Drunkenness

The offering of *balche* and the compulsory drunkenness have been discussed, but here we are concerned with the general feasting and the natural results of overindulgence which seem to have come at the end of many of the rituals. The accounts of the "orgies," it must be remembered, come from the pen of Franciscan priests. In fact, Landa (p. 73) tells us: ". . . these children, after being instructed, took care to notify the priests of acts of idolatry or of drunken orgies that occurred; and they broke the idols although they belong to their own fathers."

Again, by Landa, we are told, "Their priests were always first in their rejoicings and drinkings." At the end of the celebration in the month Pax, he observes (p. 165), ". . . each of the *Chacs* broke a large jar filled with drink, and with this they ended their festival. When it was over, they ate and drank the presents which had been offered. . . . There they had a great feast, and in these feasts the lords and priests and *principales* got drunk, and the rest of the people went to their towns but the *nacom* did not get drunk." Again (p. 155): "This [rite] done, the priest first, and then the officers of the festival, offered the gifts; and so dancing, the wine was poured out, and they got drunk until they were overcome." Still more intemperate run other accounts: (p. 154) "This [ritual] ended, all ate the gifts and the food, which they had brought, and drank until they were sacks of wine," and (p. 166) "to make offerings with rejoicings and dances, and make wineskins of themselves, and this was the inevitable conclusion (of their feasts). And so great was the excess which there was in these festivals during these three months that it was a great pity to see them, for some went about covered with scratches, others (with bruised skulls), while others had their eyes inflamed with much drunkenness, and all the while with such a passion for wine that they were entirely given up to vice through it."

Landa, quite correctly, describes these "rejoicings" as "orgies," if we are to believe the following account (p. 91): "These Indians were very dissipated in drinking and getting intoxicated, on account of which many evils resulted, such as killing each other and violating the conjugal rights of each other, the poor women thinking that they were receiving their husbands, behaving also with their fathers and mothers as if they were in the houses of their enemies, and setting fire to their house, and in spite of all this they ruined themselves (in order to) get drunk."

Ceremonial Disposition of the Remains of the Offerings

The final act of any ritual seems to have been the distribution of everything not yet consumed. This became a matter of great importance, and is a common idea in many religions. Objects, once consecrated, remain sacred, and they must be treated accordingly and never placed in secular use.[70] These rules to prevent contamination of sacred things are but another idea of ceremonial purity.

Tabus on those disposing of the remains of the offerings were observed. Landa (p. 104) states: "And these censings being over, they took [all the paraphernalia of the ceremony and]

gave the whole to an Indian to be carried out of the town, enjoining upon him that he should not drink nor look behind him as he came back. . . ."

The contagion of sacredness even extended to the sweepings of the house, probably that part containing the idols. Landa (p. 166) shows the truth of the above statements when he refers to the beads placed before the gods. "These beads which they thus offered never returned to their former uses, nor did anything which they offered to the idols. . . ."

As another example of caution in the presence of sacredness, incense was to be burned in the new fire that had been kindled. Landa (p. 153) reports: ". . . the priest began to throw this (kind of) incense into it, and all came in turn, beginning with the lords to receive incense from the hands of the priest. . . . And they threw it into the brazier little by little waiting till it had finished burning."

Even the copal had to be completely consumed before secular life could be taken up again. In another case: "When all the hearts were consumed, the *Chacs* extinguished the fire with the pitchers of water" (Landa, p. 163).

Degradation of the Sacrifice

In all religions where relatively valuable offerings are made there seems to be a tendency on the part of the worshipper to offer a substitute, or to debase or degrade the gift. This is seen very clearly among the Maya in offering for sacrifice an animal in place of a human being. In the *Relación* of Valladolid (RY, 2:27) it is related: "The lords and chief men killed some male or female slaves which they possessed so that, taking out the heart, they might offer it to these idols. Those who did not own them offered little dogs and other kinds of animals, smearing the mouth and nostrils of these idols with the blood."

Along the same line, Landa (p. 143) writes, "They placed the man or dog whom they were going to sacrifice [on a] great pile of stones."

There was also a heart made of bread offered as a substitute for a human heart or one of a large animal. Landa (p. 141) tells of this type of heart and (p. 163) in the month Mac, hearts of birds and animals were thrown into the fire.

In a festival in honor of Tezcatlipoca the figure of the god was made of ground seeds and into it a priest, called Quetzalcoatl, shot a dart. The body was then broken up and the "heart" and other pieces distributed, evidently to be eaten.

"If they were unable," writes the Bishop (p. 163), "to get large animals [for sacrifice] like tigers (jaguars), lions (pumas) or crocodiles, they made their hearts out of their incense; but if they had killed them, they brought their hearts for that fire. When all the hearts were consumed, the *Chacs* extinguished the fire with the pitchers of water. They did this, so as by means of it and of the following festival, to obtain a good year of rains for their grains." [71]

Animal Sacrifices

In addition to the animals sacrificed as substitutes for human beings, there are constant references to offering animals of many kinds. Says Landa (p. 114): ". . . birds of the sky, or beasts of the land, or fish of the sea, they always smeared the faces of the idols with their blood. . . . From some animals they tore out the heart and offered it. Other animals they presented whole, some living and some dead, some raw and some cooked. . . ."

A dog seems to have been the most common animal to be presented to the gods. Sometimes there was demanded a special kind of dog: a spotted variety, one of pottery, and in one of the rites a virgin dog. The list of animals offered as a sacrifice includes deer, wild boar, "tigers," "lions," crocodiles, iguanas, hens, turkey, and birds of various kinds. Quail pasties are mentioned in one place.[72]

Failure of the Ritual

There are definite indications that the inefficacy of a rite to produce the results desired was always definitely placed on the shoulders of the participants. Landa (p. 136) bears this out: "And so the priests said, when no calamity happened to them, that it was on account of the services, which they had offered to him [the god]; and in case misfortunes came, they made the people understand and believe that it was owing to some sin or fault in the services or in those who performed them."

In discussing the results of the ritual of the years beginning with Kan, Landa (p. 142) has this to say: ". . . it was on this account that no calamity came to them in it [the year]. But as it happened frequently that they had calamities, the devil had arranged it that they should perform their ceremonies to him, so that when these misfortunes came, they should lay the blame on their ceremonies and on those who performed them, and that they always should remain in error and blindness."

VII

TRADE

"The occupation to which they had the greatest inclination," notes Landa (p. 94), "was trade." The merchants constituted the dominant class and often occupied the office of chief in the later history of southern Yucatan. This is especially true in Acalan where a lord, named Paxbolonacha, was the supreme ruler of the entire province. He was the sixth generation in a merchant dynasty. His "hesitation and his subsequent conciliatory attitude toward Cortés," write Scholes and Roys (1948, p. 87), "was very much like the policy of the Xiu rulers in northern Yucatan in regard to Montejo and his son."

"Of Yucatan we are told that 'many merchants of this land had their sons and other factors there [in Honduras] for the aforesaid traffic' " (*ibid.*, p. 34).

Landa (p. 94) informs us that after the fall of Mayapan the son of the ruling family of the Cocom escaped death owing to the fact that he was away trading in the Ulua in Honduras.

SOURCES OF INFORMATION

Our knowledge of trade and of markets among the Maya is derived mainly from two sources: the early accounts of the Spaniards in their dealing with the natives, and the study of "trade pieces" or objects foreign to the locality where they are found in archæological investigations. Botanical, mineralogical, and metallurgical evidence also aids in determining the migration of objects.[1]

PILGRIMS AND TRADERS

Two explanations may account for the large variety of material of which specimens taken from the Sacred Cenote were made and the long distances between this pool in northern Yucatan and the place of origin of many of them, a region extending from Colombia on the south to central Mexico on the north. First, pilgrims from far places to the shrines at Cozumel and Chichen Itza may have brought with them offerings to be sacrificed to the gods, but, second, in all probability most of the gifts thrown into the sacred well at Chichen Itza were probably acquired by the worshippers in trade.

LANGUAGES SPOKEN

We learn from Scholes and Roys (1948, p. 321): "Since many of the Chontal [of Tabasco] were bilingual, speaking both their own language and Nahuatl, it is of interest to consider whether the latter could have been a lingua franca for the traders, whose activities extended across the lowland Maya area from west to east. This was possibly true in parts of the south, but the apparent absence of a knowledge of Nahuatl in northern Yucatan would indicate that it was not generally the case." Further (p. 318): "The place names of Acalan were all Chontal, but the personal names of more than a third of the population were Nahuatl. In Tabasco almost all the place names and all the personal names were Mexican; and in Yucatan none of the place names and only a sprinkling of the personal names were of Nahuatl origin."

In the area of the peninsula of Yucatan itself, the Chontal and the Maya dialects of the great Maya linguistic stock were, to some extent, mutually intelligible. This was naturally a decided factor in the exchange of commodities.

MERCHANTS

"Trade goods," Roys tells us (1939, p. 61) "were handled by professional merchants (*ppolom*), many of whom were travellers (*ah ppolom yoc*)." Further (1943, p. 51) he records, "Merchants ranged from the wealthy and noble wholesalers, who had their own factors, trading canoes and slave carriers, to the petty itinerant who carried his own pack." The rich traders evidently traveled in litters, borne by slaves.[2] Merchants are also shown negotiating near their bales of goods on several of the painted vases, especially those from the Guatemalan highlands.[3]

A stone bas-relief found in 1948 at Tula on the east side of Temple B (fig. 609) shows a trader about to rise with his burden on his back. The style is quite different from any other carving I have seen. The class of genre figures is small. An interesting clay figurine (fig. 610) from the upper Usumacinta River shows a bearded trader with his pack much like the preceding.

There were strict rules regulating traders. There seems to have been a village inn or rest house in the charge of an *alcalde meson* who "arranged for the purchase of wood, provisions, and fodder for travellers" (Roys, 1939, p. 46). There was a regulation, in the *Ordenanzas* of Tomas Lopez (as given in Cogolludo, 5, XIX), "that travellers must make their purchases in the market and not go about seeking supplies. . . . Also travellers were not allowed to lodge in private houses and . . . could remain in an Indian town only over a day and night."

GOODS EXPORTED AND IMPORTED

Landa (p. 94) reports that they carried "salt and cloth and slaves to the lands of Ulua [Honduras] and Tabasco,[4] exchanging all they had for cacao and stone beads, which were their money. . . ." Landa's list of Maya trade goods is far too short. To it should be added fish, clothing *(mantas)*, feathers, copal, wax, honey, flint knives, and swords. Among the foreign objects received in exchange, in addition to cacao and stone beads, should be included cotton cloth *(mantas)*, dyestuffs, feathers, skeins of dyed rabbit hair for embroideries, rope, body paint, semiprecious stones including jade, red shell beads, obsidian, alabaster, rubber, sting-ray spines, pitchpine for lighting, copper and gold bells and plates, thin sheets of metal for ornaments and tools, and pottery.

In the mountains of Chiapas lived the Zoque. They produced, among other things, cotton, cochineal, honey, and "stone amber" or yellow topaz. Scholes and Roys (1948, p. 39) speak of their exportation of fine fabrics to both the Valley of Mexico and the Maya area. They suggest that the woven gauze and the brocading of sheer plain weave recovered from the Cenote of Sacrifice may have come from the Zoque.

Martyr (1912, 1:317) lists the merchandise carried in the Honduran canoes met by Columbus as "bells, razors, knives, and hatchets made of a yellow and translucent stone, they had fastened in handles of hard and polished wood. There were

also household utensils for the kitchen, and pottery of artistic shapes, some made of wood and some made of that same clear stone; and chiefly draperies and different articles of spun cotton in brilliant colours." Crucibles should be added to the list. Carrillo y Ancona (1897) lists among the articles of import, in addition to the foregoing, arms, *instrumentos,* idols of clay, wood, stone, hemp, pelts, fruits, maize, vanilla, and wood for buildings together with lime and clay. Scholes and Roys (1948, p. 319) add turquoise and "metates carved from lava, which could have come only from the highlands of Guatemala or Mexico."

There was a traffic in slaves. "That Cocom," writes Landa (p. 35) "was the first who made slaves, but from this evil sprang the use of arms with which they defended themselves, so that they all should not be slaves." In the *Relación* on Ciudad Real (p. 354), there is a famous passage where a Xiu killed a Cocom "who was a greater lord and more important than he, and to do it he enraged them against him, telling them and making them believe that the Cocom was secretly selling native Indians to foreign traders." Later, in the discussion of media of exchange, we shall note that cacao and stone beads were used with which to buy slaves. Among the vices of the Indians, Landa (p. 73) mentions buying and selling slaves. He continues (p. 115), "The priest or *Chilan* . . . ordered them to sacrifice human beings, and everyone contributed to this, that slaves be bought. . ." (Tozzer, 1941, p. 298).

MEDIA OF EXCHANGE

Trade was generally in the form of barter, but money of several varieties was very much in use. Cacao beans (*Theobroma cacao* L.) and stone beads were the two most common forms of money among most of the natives of Middle America. Both of these commodities seem to have been imported by the Maya from the south and from southern Mexico.

Cacao. In the *Relación* of Merida (RY, 1:70–71), the same information is given: "They also use a great quantity of cacao which is brought from the province of Tabasco and from Honduras . . . and it serves them as money." Gaspar Antonio Chi (Tozzer, 1941, p. 231) writes, "Likewise they used as money . . . (those) grains like almonds of what they call cacao, of which . . . (they make) their drinks. . . ."

It is quite evident that, in addition to importing cacao, the Maya had plantations of cacao. Landa (p. 37), after telling of killing the reigning Cocom, adds, "They sacked his house and took away the lands which he had in cacao." Plantations are frequently mentioned in the *relaciones*. Sanchez de Aguilar (1639, 1892 ed., p. 98) observes, "And the Cupuls had orchards . . . where they cultivated cacao which is the gold of this country which serves for money in the plaza and the market of this city." [5]

Oviedo (8, XXX), in writing of Nicaragua, describes the cacao beans—or "almonds," as he calls them—and gives some interesting prices:

> They guard them and hold them in the same price and esteem as the Christians hold gold or coin; because these almonds are regarded as such by them, as they can buy all things with them. In the way, that in said province of Nicaragua a rabbit is worth ten of these almonds, and for the price of four almonds they give eight of that excellent fruit which they call *munoncapot* [the *chictzapotl,* or *Achras zapota* Linn.], and a slave costs one hundred almonds, more or less, according to his condition and the agreement between the seller and buyer. . . . And even in that almond money one finds falsifications in order that one may cheat the other and mix the fake pieces among a quantity of the good ones. These false pieces are made by removing the bark or skin which some of the beans have, just like our almonds, and fill them with earth or something similar. . . .

Beads. There are two main types of beads, stone (*tun*) and shell (*kan*), both mentioned in the *Relación* of Campocolche (RY, 2:183). We read of presenting an idol with "some green stones which they call *tun* and others which they call *kan* which are red and these red ones are of value and precious because with them they can buy that for which they have need." The main use for these beads seems to have been as a medium of exchange. This and another purpose—adornment—are noted by Landa (p. 95): "And with this [money] they were accustomed to buy slaves, or other beads, because they were fine and good, which their chiefs wore as jewels in their feasts. . . ." Tozzer (1941, p. 292) discusses types and uses of beads.

Stone beads. It is worthy of note that the class of object recovered from the Cenote of Sacrifice in largest quantity was stone beads of many shapes and sizes. The necklaces represented on the carved human figures, seen most clearly at Copan, can be duplicated from the Cenote beads. The greatest number of these are of jade. With relation to the green stone called *tun,* Thompson (1950, p. 144) points out that *tun* "meant stone in general and precious stone in particular." [6]

Shell beads. The Bishop continues his remarks on beads: "And they had others [beads] made of certain red shells for money, and as jewels to adorn their persons; and they carried it in purses of net. . . ." This was probably the *tem* or *hotem* meaning "pocket" or "bag."

Cogolludo (4, III) supplements this: "The money which they use was . . . some red shells which they import and which they string together like the beads of a rosary." In the Sotuta testimony (Scholes and Adams, 1938, p. 102) "five red *cuentas* (beads)" were used to buy boys for human sacrifices. This red shell was probably the *Spondylus princeps* from the Pacific side of Central America and was called *kan*. The same shell on the Atlantic coast has less color than the Pacific variety, usually being white or orange. [7]

During the late history of the Itza when calamities had overtaken them, we learn from one of the Tun prophecies in the Tizimin of their general poverty. "There shall be no new red shell beads" (Roys, 1949, p. 173).

Copper bells. Gaspar Antonio Chi (Tozzer, 1941, p. 231) remarks: "The money which they used was little bells (of copper) . . . and they were valued according to their quantity and size. . . . In their commerce they use the said money . . . (and certain) precious stones and small axes of copper which have been brought (from New Spain)."

It is not improbable that the large number of plain copper bells recovered from the Cenote were once used for money. Lothrop (1952, p. 85) describes 17 styles of bells in the collection. "Most Cenote bells probably came from the central Mexican plateau and adjacent Mixtec, Zapotec and Tarascan areas. . . . They are shown in Maya manuscripts on wrists and calves, attached to bars worn on the chest, on necklaces, on shields, on belts and on headdresses."

ROADS

Most of the main centers of population seem to have been connected by well-paved roads (see Chapter V-1, -3). Many of the early authorities mention these highways called *sacbeob* (white roads). Cogolludo (4, VII) writes, "There are remains of paved roads which traverse all this kingdom. . . . There, highways were like the *caminos reales.*"

Up to the present time, the most famous of the known ancient roads are those centering around the ruined group at Coba. One runs westward for 60 miles to Yaxuna, a short distance south of Chichen Itza. The earliest known mention of this road is in a land survey, dated 1820, given and noted by Roys (1939, p. 23).[8] Charnay (1880–82, pp. 134, 408) speaks of a road "near Izamal, the terminus of a great ancient highway discovered by me in 1859, extending from Izamal to Cozumel."

Landa (p. 139) states that each town had four entrances.[9] This is amplified by Lizana (1, LV), who informs us: "There have been made four roads or causeways to the four cardinal points, which reached to all the ends of the land, and passed to Tabasco, Campeche, Guatemala and Chiapas."

In the *Relación* on Ponce, Ciudad Real writes (1588, 1932 ed., p. 325): "Twenty-five leagues from Ichmul lies the Bay of Ascension, a very good and large port . . . it is no more than thirty leagues of dry road from the city of Valladolid."

An ancient road paved with flat stones is reported running from Tixchel, on the Estero de Sabancuy in the present state of Campeche, inland for 4 kilometers. Cortés found a causeway extending across a marsh near Potonchan (Scholes and Roys, 1948, p. 81).

Roys (1943, p. 51), after speaking of "the wide causeways across the country," adds, "but at the time of the conquest they were completely a thing of the past and had probably not been used for centuries. The highways of commerce were then rough narrow trails through the thick bush."

There is a certain amount of data in the Quijada papers regarding his road-building activities in Yucatan. We learn, for example (Scholes and Adams, 1938, 2:144–46) that in 1564 Montejo Xiu was consulted by him about the building of a through road from Mani to Merida.

BRIDGES

There are few remains of bridges today, but there is evidence that the Maya achieved such construction, for it was essential in the swampy river country in Tabasco. Cortés, in his famous trek across this region, constantly had to order bridges to be built. Paxboloncha, the merchant-chief of the Acalan, had a bridge constructed for the Spaniards across a broad swamp between Itzamkanac and a nearby river.

Blom (1932, p. 547) notes that on a journey from Cahabon to Bacalar from 1682 to 1685 the Franciscan Joseph Delgado struggled along "roads through swamps which had been built in ancient times, and still were well preserved." In his survey of Palenque, Blom mentions the well-known bridge over the stream there and adds, ". . . I found several similar bridges, and in some cases I found huge stone buttresses on either side of a stream, indicating that a bridge of logs once had rested on these buttresses." He continues (p. 548), "Thus we have evidence not only of a net-work of paved roads, but also of the fact that the Highway Department of the ancient Mayas built highways, bridged streams and made swamps trafficable by roads raised above the swamps."

The abutments of a pre-Columbian bridge over the Pusilha River in southern British Honduras can still be seen (Joyce et al., 1928, p. 342, pl. 31). A corbeled-arch bridge is reported by Thompson (1948, p. 38) just east of the ruins of El Baul, Guatemala.

MAPS

Not only did the ancient inhabitants of Middle America have well-marked roads and bridges but they had road maps, which were used by the traveling merchants, especially those of Tabasco, Chiapas, and Honduras. On his trip across the base of the Yucatan peninsula to Honduras, Cortés saw maps of the country. Bernal Diaz (12, CLXXIV) writes: "In this pueblo of Istapa [south of Jonuta on the Usumacinta River] Cortés learned from the Caciques and native merchants all about the road we had to follow, and he even showed them a henequen cloth which he had brought from Coatzacoalcos, on which all the pueblos we should pass on the way were marked as far as . . . Acalan," and (24, CLXXVII) Cortés ". . . on asking about the pueblos and the road along which we must go, they brought it to him all drawn on some cloths, even to the rivers and swamps and miry places. . . ."

Herrera (3, 6, XII) gives still more information when he writes, "Merchants who understood the desire of Cortés, showed him a cloth woven of cotton on which was painted the road to Naco, Nito in Honduras, as far as Nicaragua belonging to the government of Panama, with all the rivers and settlements which have to be passed, and the markets, where they make camp when they go to the fairs. . . . Cortés thanked them, marvelling at the information of a country so far away." [10]

The most important early colonial map is that of Melchor de Alfaro Santa Cruz of 1579. This was first published in colors in the *Relaciones de Yucatan,* Volume 1. Maudslay brought it out, also in colors, in his edition of Bernal Diaz (1916) and it was lately reproduced with English translation by Scholes and Roys (1948).[11]

TRADE CENTERS

From Tabasco to the Ulua River in Honduras there was "a prosperous economic unit in pre-conquest times." In Tabasco the three important centers for trade were Cimatan and Xicalango, in both of which Nahuatl was spoken, either wholly or partly, and Potonchan where the people spoke the Chontal dialect of Maya. (See Scholes and Roys, 1948, for most of this section.)

Cimatan, on the Grijalva river below the Rio de Dos Bocas, was the first settlement in Tabasco reached by travelers coming from Mexico. Xicalango was probably located on the north shore of the west extension of Laguna de Terminos, which is called Lake Atasta. The site is locally known as Cerrilos. Potonchan was near the mouth of the Grijalva river.

Another trade center was Itzamkanac, the most important town of the province of Acalan at the time of the conquest. Both Cortés and Bernal Diaz describe it. The province has now been definitely located by Scholes and Roys on the Candelaria River, which flows into the Laguna de Terminos in the present state of Campeche. Other trade centers in this state were Champoton and Campeche. On the southeast side of the peninsula was the town of Chetumal which produced cacao. This seems to have been the port for trade with Honduras and the southeast. Farther south, near the mouth of the Rio Dulce

into the Gulf of Honduras, was Nito, and farther east was Naco in the Ulua basin, both great centers for trade southward.

The southernmost locality for trade between Central America and Mexico seems to have been the southern border of Panama. Lothrop (1936, p. 74) writes: "The Aztec sent warrior-traders the entire length of Central America to gather gold in Costa Rica and western Panama." He quotes Juan de Estrada Ravago (*Documentos de Costa Rica,* III, 3) who wrote: "The great King Montezuma . . . sent his armies . . . to collect tribute from the said province (of Costa Rica) whence he had in his possession many and very fine pieces of gold." Yñigo de Arança (*ibid.,* V, 100) writes, "In the land which they call *Duy* there are over six thousand warlike Indians, and there is a report they have commerce with the people of México who stayed there when word reached them of the first entrance of the Spaniards, they having gone for the tribute of gold which that province used to give to Montezuma."

This far-distant province not only furnished gold to the Aztec, but the large amount of Panamanian jewelry, mainly from Coclé and Veraguas, found in the Cenote, shows that the Maya also received gold and other metal products from the isthmus and the northern part of the southern continent.

DOMESTIC TRADE

In Yucatan, hostilities among the different *cacicazgos* were undoubtedly a barrier to local trade. Landa (p. 40) notes: "Between the three great princely houses, namely the Cocoms, the Xius and the Chels, there were great strifes and enmities. . . . On this account they caused each other's food to be insipid; since the Chel, who lived on the coast would not give fish nor salt to the Cocom, making him go a long distance for it; while the Cocom did not permit the Chel to get any game or fruit."

In spite of these antagonisms, there seems to have been a considerable amount of barter between those living in the interior and those on the coast. From the former came flint, cotton cloth, and some maize in addition to game and fruit in exchange for fish and salt. "Copal gum was shipped inland from Sinsimato and cacao from Chetumal, the only province of Yucatan where it was produced on any considerable scale." [12]

Landa (p. 189) has a good deal to say regarding the presence of salt on the northern rim of the peninsula. There was both a domestic and a foreign trade in this commodity. He writes, "A great deal is collected now at the proper season to be carried to Mexico and Honduras and Havana." Previously he had remarked:

> And they were accustomed not to make this harvest of salt without the permission of the lords who in those places had most right by proximity. And to these all those who came for salt made small offerings, either of the salt itself or of things from their own lands; and since a *principal* named Francisco Euan, a native of the town of Caucel proved this, and also proved that the government of the city of Mayapan had given his ancestors charge of the coast and of the distribution of the salt, the *Audiencia* of Guatemala ordered those who should go to his territory to collect it at the present time to give him the same.

Slavery. Traffic in human beings was not uncommon. In the discussion of the Classic Maya we have alluded to the representation of slaves or prisoners tied together by ropes (fig. 391). Landa (p. 35) states that the Cocom were the first to make slaves in Yucatan over the objection of the Xiu.

In Nicaragua, Oviedo (8, XXX) tells us "a slave cost one hundred almonds, more or less, according to his condition and the agreement between the seller and the buyer." Tozzer (1941, p. 298) gives references to the classes of people who were enslaved, their employment, and their use for sacrifice and as concubines. The friars sometimes fined and punished slavery, wife desertion, and selling daughters in marriage.

Prostitution. Landa (p. 124), in denying that the "abominable sin of pederasty," practiced in other parts of the Indies, was present in Yucatan, speaks of prostitution: "They brought into these places [unmarried men's house] the bad public women and they made use of them in them; and the poor girls who happened to ply this trade among this people, although they received pay for it, were besieged by such a great number of young men, that they were harassed to death."

On the custom in Nicaragua, Oviedo (8, XXX) writes: "And because they in that country have women who give their bodies for a price, just as the public women among the Christians, and who live from this (and such women are called *guatepol,* which is the same as to say prostitute), he who wants them for his lustful use gives them for a run eight or ten almonds, according to how he and she agree."

TRADE BY LAND AND INLAND WATERWAYS

One has only to fly over southern Campeche and Tabasco to note the innumerable interconnecting rivers, swamp lands, and many bays, through which the rivers empty into the Gulf of Mexico.

Mexican trade. In 1579 Alfaro wrote concerning the political divisions of the western country: "It is not understood that they recognized any lord, unless it was Montezuma who had . . . two armed forces of Mexicans, who were at Xicalango and Cimatan and who collected the tribute of Montezuma, which was cacao" (RY, 1:364).

Far to the north was the Aztec country. Sahagun tells of merchants, speaking Nahuatl, traveling through hostile territory to Tabasco. From here to Xicalango it was possible to go by inland waters using the various rivers forming the delta of the Usumacinta. The map of Melchor de Alfaro Santa Cruz of 1579 shows these rivers. Roys (1943, p. 107) observes:

> Before they arrived (in Tabasco) they (the Aztecs) sent word ahead and were met in the enemy country, probably the Zoque area, by the friendly "lords" of Anahuac Xicalango, who came out fully armed and conducted them to their towns . . . first to Cimatan and then to Xicalango. From the highlands of Mexico they brought certain handsomely decorated garments, headbands and spindle cups of gold, earplugs of gold, crystal, obsidian, and copper, copper bells and needles, obsidian knives, razors, and lancets, cochineal, alum, rabbit hair and slaves. . . . In return they received carved jade, the so-called emeralds, and other precious stones, red shells, tortoise-shell blades, apparently used for preparing chocolate, feathers, and jaguar and cougar skins. To this list of exports cacao, probably the most important of all, should be added.[13]

Southward to Higueras-Honduras. To the south of Xicalango and Tabasco there were probably two routes to Nito on the Rio Dulce and Higueras-Honduras,[14] one all the way by land and the other a combination of land and water travel. The first was probably the one followed in general by Cortés in his journey to Honduras. The map he was shown at Istapa has already been mentioned.

When Cortés was in the province of Acalan, which was in the southern part of the present state of Campeche, he learned

(Letters, McNutt ed., 2:263–64) of the natives here carrying on a trade by water with Xicalango and Tabasco. Their lord was Paxbolonacha. "He is the richest trader and has the greatest shipping traffic of anybody. His commerce is very extensive." Possibly from the map just mentioned as well as from this chief, Cortés heard of the larger town of Nito, Honduras, where "there is an entire quarter peopled with his agents under command of one of his (Paxbolon's) brothers. The chief articles of merchandise in these provinces are cacao, cotton cloth, colours for dyeing, and a kind of stain with which they smear their bodies to protect them against heat and cold; tar for lighting purposes, resin from pines for the incensing of their idols, slaves and certain red beads of shell . . . they trade in some gold which is mixed with copper and other alloys." Later (*ibid.,* p. 280), in Nito, he met a native of Acalan "who told me that he was a trader, having his principal trade in the town of Nito . . . that there was a large traffic carried on there by merchants from all parts of the country."

The second route from Tabasco or Acalan to Honduras was mostly by the rivers. "In spite of the various rapids, the most convenient (route)," writes Roys (1943, p. 106), "would appear to be up the Usumacinta and Rio de la Pasion by canoe, and thence overland to the Sarstoon River, which flows into the Gulf of Honduras." Except for rapids above the present site of Tenosique, the Usumacinta and several of its tributaries are navigable.

TRADE BY SEA

From the early Spanish testimony, the classic account of water transportation is that of the large dugout canoe, manned by 20 Indians, which Columbus met near the island of Guanaja, one of the Bay Islands off the north coast of Honduras, on his fourth and last voyage in 1502. It has been commonly supposed that this canoe was from Yucatan.[15] The centers of canoe-building seem to have been at Mazanaho near Lake Bacalar and on the northeast coast of the peninsula. Boats and water scenes are seldom represented in Maya art (see fig. 62).

Yucatan to Honduras by water. Much of the barter with Tabasco seems to have taken place overland, but trade with Honduras and Nicaragua was probably by sea. Torquemada (3, XLI) informs us about southern trade: "Other nations traded in this province (Honduras) and especially those of Yucatan who came by the sea in canoes. . . ." Oviedo (32, VIII) says much the same: "Because along said coast (Honduras and eastern Yucatan) there is an extensive trade in said fruit cacao . . . canoes go from Yucatan loaded with clothing and other goods to Ulua and from there they return with cacao." Herrera (4, 8, III), writing of Honduras, states, "They traded with other nations especially with Yucatan where they went in canoes by sea carrying mantas, feathers and other things and returned with cacao."

A direct connection between Chichen Itza and this waterborne trade to the southeast is given in the *Relación* on Ponce (p. 325). He is writing of the Bay of Ascension on the east coast of the peninsula and continues: "On the mainland near this bay and port, there are some stone buildings, from olden times, and the Indians say they were temples of the gods and idols of the lords of *Chicheniza,* and when they went to *Honduras* for cacao and feathers and other things, they passed by there going and coming to offer sacrifice to them, and there they embarked and disembarked."

In the *Relación* of Tecauto y Tepacan (RY, 1:125–26) we read, "The traffic of this land is in mantas of cotton, wax, honey, and salt which is carried to Mexico, to Honduras and other parts, whence they bring back cacao and garments for the Indians."

There was an inland route from Ticul to Chetumal Bay on the east coast and thence by water to Honduras.

Tabasco to Yucatan by water. This could have been done entirely by land but Roys (1943, p. 56) suggests a water-and-land route as follows: "Alfaro's report describes the inland water route, which wound its way along the network of rivers in Tabasco, across Laguna de Terminos, and up the Estero de Sabancuy. From the end of this estuary there is little doubt that goods were carried along the shore of the Gulf of Mexico to Champoton and Campeche and thence to various parts of Yucatan."

Concerning the Laguna de Terminos, we read in Landa (p. 5): "The sea enters by these mouths with such fury that a great lagoon is made abounding in all kinds of fish and so full of little islands that the Indians place signs on the trees,[16] in order to know which way to go, in coming and going by water from Tabasco to Yucatan."

Honduras to Mexico via Yucatan. The land route northward from Honduras to Xicalango in Tabasco and thence to Mexico has been mentioned, but there seems to have been a sea route from Honduras to Mexico around the entire coast of the peninsula. A royal cedula of 1535 (Peralta in Lothrop, 1936, pp. 74–75) "directs that the outlet of the San Juan river in Nicaragua be explored because gold was carried thence to Montezuma by way of Yucatan."

MARKETS

"There can be little doubt," writes Roys (1939, pp. 61–62) "that there had been a great market at Chichen Itza, where pilgrims came from foreign parts to trade as well as to worship, just as they do to-day at the shrine of Guadeloupe in Mexico." There were large markets at Cachi and Chauacha, towns in the northeast corner of the peninsula. At the former place Roys (1943, p. 17) mentions a large market square beside a building which housed a court where disputes were settled. Landa (p. 96) tells us "at their markets they traded in everything which there was in the country."

Oviedo (32, III) describes a Maya market: "They had very large markets or plazas, with many merchants and goods; both provisions and food, as well as of all the other things which are bought, sold and exchanged among the natives."

In Guatemala, Ximenez (I, 94) describes fairs and markets:

> The rulers took great pains that there should be held great and celebrated and very rich fairs and markets, because at these came together many things; those who are in need of something will find it there and can be exchanged with those other necessary things: they held fairs and exhibited what they had for sale close to the temples. The selling and buying is to exchange which is the most natural form of trade; they give maize for black beans and black beans for cacao, exchanged salt for spices which were *aji* or chile . . . also they exchanged meat and game for other things to eat; they swapped cotton cloth for gold and for some hatchets of copper, and gold for emeralds, turquoises and feathers. A judge presided over the market to see that nobody was exploited. He appraised the prices and he knew of everything, which was presented at the market.[17]

BUSINESS METHODS

We have seen from the quotation above that a judge was in charge of the market, and that nobody was cheated. Other early accounts, especially those of Landa, tell us of their business transactions. First of all (p. 149) "with all their months joined together, they made a sort of calendar, by the aid of which they regulated not only their festivals but also their accounts, contracts and business. . . ." Again (p. 96), "They gave credit, lent and paid courteously and without usury." Cogolludo (4, III) reports: "In sales and contracts there is no written agreement, nor do they have promises of payment for security but the contract was valid when the contracting persons drank together publicly. This was in particular the custom in the sale of slaves or hollows containing the cacao (plantations)."

There is nothing said about prices except for food. We learn from Gaspar Antonio Chi (Tozzer, 1941, p. 231): "With provisions there was no bargaining because the prices (were always) . . . in the same way, except for maize which sometimes (rose in price when the crop failed, and) it never went above the price of one *real* or a little more (per load)." Writing in 1582, he adds, "Provisions have gone up in price since the Spaniards (settled in these) provinces." [18]

MOVEMENTS OF PEOPLE

In regard to migrations of people, Roys (1943, p. 59) informs us: "The descendants of the Mexican intruders continued to be characterized by their mobility. If forced out of one region, they sought another where they could dominate the autochthonous inhabitants, exact a moderate tribute, raid their neighbors for slaves, and, if possible, control commerce. . . . We find one such group in the late fourteenth century moving from Cozumel to the Usumacinta valley."

ARCHÆOLOGY AND TRADE

At the beginning of this chapter it was stated that, in addition to the early accounts of the Spaniards about trade, archæological investigation has turned up many objects which are "foreign" to the site where they occur. Various circumstances explain this: the artisan may have come from another culture, the material may have been introduced from a distant area, or the artifact may have come in by trade.

The most striking evidences of "foreign" influence are seen in two contacts between central Mexico and the Maya area, both of which have been mentioned. The first, dated about the year 500, is that between San Juan Teotihuacan and Kaminaljuyu and other sites in Guatemala; the second, occurring about 500 years later, between Tula, Hidalgo, and Chichen Itza.

Still other relationships are found over Middle America where certain types of pottery are considered as criteria. There are two varieties of ceramics associated with late Maya history in the Tula-Toltec period. The first, Fine Orange X, seems to have originated somewhere near the border of Tabasco and Veracruz. It is well recognized in the remains from Los Sacrificios, near the present city of Veracruz. Sherds of this ware found at Chichen Itza are undoubtedly from vessels imported from Mexico. Of the second type of pottery, Effigy Plumbate, the place of origin has not been definitely settled but is possibly in southeast Chiapas. The peculiar combination of slip and paste that distinguishes this ware may be seen from Tula in Hidalgo to Salvador. Trade is also responsible for this type in northern Yucatan in the Mexican period of Maya history.

The specimens retrieved from the Sacred Cenote can be divided into two classes. The first comprises objects made in Yucatan of material obtained from a distance; the second, objects manufactured in regions south of the peninsula. Metal specimens probably belong in both categories. Plain disks of gold may have been brought into Yucatan and decorated in repoussé design after their arrival. Cast metal figurines, originating as far south as Colombia, have made the long trek to northern Yucatan.

RELIGION AND TRADE

The Maya had a god of merchants, Ek Chuah, to whom on their trips they paid homage, according to Landa (p. 107):

> And travellers even carried incense on their journeys and a little dish to burn it in; so that at night, wherever they came they erected three little stones, and placed on each several grains of the incense; and in front they placed three other flat stones, on which they threw incense, as they offered prayers to God whom they called Ek Chuah, that he would bring them back home again in safety. And this they did every night until they returned to their own houses, where there was always some one to do the same thing for them and even more.

A rite in honor of Ek Chuah (p. 164) was celebrated by the owners of cacao plantations. As cacao figured largely as money it was natural to consider Ek Chuah as the god of merchants as well as of travelers. In this ceremony "they sacrificed a dog, spotted with the color of cacao . . . burned their incense to their idols and offered them iguanas of a blue color." [19]

Ek Chuah has been identified as one of the black gods in the codices (Brinton, 1894) and designated by Schellhas as God M. In Madrid 52–55 the god appears as a traveler with his staff and corded hamper either on his back or on the ground. In some cases (53c) he seems to have the head of God C, who symbolizes the polar star. This is not surprising as some authorities speak of the North Star (Xaman Ek) as the "guide of merchants" (Brinton, 1894, 57–58), and traders were expected to burn copal by a roadside altar to Xaman Ek.[20] The same god mentioned by Landa was worshipped in Tabasco. He is called Ykchaua in the newly found Chontal text. An idol to him is among those destroyed by order of the missionaries. "The custodians of the idols went for them and brought them and burned them" (Scholes and Roys, 1948, p. 395).

At Puerto Deseado, near Tixchel, Bernal Diaz (45, X) reports masonry buildings containing idols of wood, pottery, and stone and adds, "the oratories were merely those belonging to traders and hunters who put into the port when passing in their canoes and made sacrifices there."

TRIBUTE

"The amount of tribute required of the individual Indian by his native lord was moderate—even light—in most states, . . . in total volume it was measurable" (Chamberlain, 1951, p. 17). The most important articles demanded were "maize, beans, peppers, cotton products of the loom, cotton mantles, jackets, and 'lesser clothing,' . . . deer and peccaries; produce of the fishing activity, and turkeys, honey, beeswax, and copal. . . ." Also salt, shells, and jade beads, as well as service in the houses of the *halach uinic* and in the field, together with military service (see Chamberlain, 1951, pp. 18–27; Peñafiel, 1890).

TRIBUTE AND TRADE WITH THE SPANIARDS

"From all we know of the tribute and service system of the Maya, . . . it seems clear that the natives of Yucatan were far from unprepared for the *repartimiento-encomienda* system which the Spaniards imposed on them."

In the *Relación* of Merida (RY, 1:70–71) there is a description of tribute and trade both before and after the conquest:

> The trade and commerce which there are in this land are in *mantas* and wax which the Indians give to His Majesty and to the *encomenderos* as tribute and in this they pay the merchants for the merchandise and things which they sell and the merchants carry it to New Spain and return bringing merchandise. There are the same transactions among the Indians because these *mantas* of cotton and wax and honey are the entire wealth of this land;—these *mantas* consist of four breadths and each breadth is three-quarters (of a *vara*) in width and four *varas* long; it is a thin cloth of cotton and on account of this it is called *manta*. From New Spain they bring a kind of merchandise which we, both the Spaniards and the Indians, call *tochomite*, a Mexican word; it is woolen yarn dyed all colors and all the Indians are very fond of it because they weave it with their cotton and white feathers in rows and they make their clothes and use it in great quantities.

Among the many excellent accounts of postconquest trade among the Chontal by Scholes and Roys is one (1948, p. 245) describing the trade between the Acalan and the interior:

> Barter with the Cehache and the settlements of the apostate fugitives in the interior of the Yucatan Peninsula provided another source of profit for the traders of Tixchel. The inhabitants of the interior needed various articles such as salt, cloth, knives, machetes, and axes, which could be obtained only by trade with Indians of the towns under Spanish control. In exchange they gave beeswax, honey, copal, and other products of the bush and forest for which there was a ready market in northern Yucatan, Tabasco, and New Spain.

The Chontal manuscript (*ibid.*, p. 396) gives a list of the articles of tribute paid by the Acalan to the Spaniards: "canoes, paddles, honey, copal, hens, *mantas*, beans, maize, squash seeds, chile, cotton, [and] calabashes." *Annatto*, the fruit of *Bixa orellana* L., was also supplied, to be used for coloring "and the Mayas are said to have employed it for painting pottery." [21]

FINES

In early Christian times, among the forms of discipline meted out to the natives as punishment for backsliding into their old heathen customs were imprisonment, slavery, and fines. These fines were paid in money. Cacao beads or *mantas* were also usually assessed to pay the cost of the trial. We learn in one place that the total fines at one time amounted to 4,340 "'*pesos de oro comun en tostones*' and 125,000 kernels of cacao together with 'many *chalchiuites*' (possibly jades) and red stones and beads, small bells and hawk bells of copper which they had from the time of their unbelief, saying that they had already been offered to the demon and it was a sin to have such things in their possession" (Tozzer, 1941, p. 80, note 342).

SUMMARY

This Memoir is an attempt to present that part of the history of Chichen Itza which covers the period of its contact with Mexico and with other contemporaneous centers in Middle America.

To establish a background for this investigation, there is, first, a short outline of Maya archæology as a whole (Chapter I).

The history of the site (Chapter II) is divided into the legendary and historical on the one hand, and the archæological on the other. Starting with the nebulous beginnings of the human occupation of the peninsula so far as tradition is concerned, we pass in turn through the various stages in the history of the site, first as they are outlined in the native post-Columbian literature and, second, as they are shown in the archæological remains. Chichen I (A.D. 600–1000) had a Late Classic background with close contacts with the Yucatan-Maya stage in much of the remainder of the peninsula. The archæology is most clearly separated from that of the later periods. The legendary history at this stage is not clear. Chichen II (A.D. 1000–1200) covers the first appearance of a foreign influence in the city. Into its architecture and its art came elements which included a new ethnic group which has been called Toltec. From documentary sources, both Mexican and Maya, an interpretation concerning Quetzalcoatl-Kukulcan and the Toltec has been attempted. Chichen III (A.D. 1200–1461) is the next period. The archæological history of post-Classic Chichen was divided into two stages: Chichen II and a second Mexican occupation, Chichen III. Structures and bas-reliefs were assigned to the two periods, on the basis of architectural plan and subject matter, as well as execution of stone carving and fresco painting. In a synchronization of archæological and documentary history, a Kukulcan II was introduced and the time of the arrival of the Itza was shifted from the first Toltec infusion to one dating after 1200. The "end" of Chichen and the Hunac Ceel episode were advanced to coincide with the "destruction" of Mayapan after 1400. This was about the beginning of a Chichen IV, in which the Itza went southward and the Spaniards arrived in the peninsula.

In a comparative archæological study (Chapter III), Chichen was considered in relation to several other sites or areas. In Yucatan, these include Mayapan and the East Coast; in Guatemala, the Cotzumalhuapa region and the highlands; in Mexico, Tajin, Tula and some other sites. Architecture and geometric and representative art were considered (the latter including animals, plants, and humans), as well as the Maya and Mexican pantheon, astronomical features, "monsters," the cults of human sacrifice, the Jaguar-Eagle, and the Ball Court, and artifacts.

Ethnology formed the subject of Chapter IV. Here the Toltec were considered as a group, both at Chichen and at Tula. Their depiction in the two areas was compared and tabulated. For Maya Chichen the collation is directed toward the Late Classic, as noted mainly along the Usumacinta.

In the study of the number and relative position of the two groups in the various structures and the character of the scenes, it was suggested that Chichen II (A) was a period of Toltec supremacy and Chichen III (B) had a divided history. In B′ the Maya are shown in positions of authority in the inner shrines of the temples, with the Toltec either absent or placed in the outer rooms. In B″, on the other hand, the Toltec occupy the important and sometimes the only positions, while Maya are being sacrificed, as in A, or taken prisoner.

The Cenote of Sacrifice was the subject of Chapter V, which covered Chichen as a place of religious pilgrimage, exploration of the site together with various phases of early Spanish accounts of the Cenote, its description, its investigation, and a résumé of its contents.

Sacrifice and its rituals comprised Chapter VI. This is an examination of the Cenote cult and human sacrifice in many of its phases in Yucatan.

As the greater part of the collection recovered from the sacred well differed, both in material and in content, from objects originating in Yucatan, a final chapter (VII) on trade was included.

We have already noted that Landa's famous *Relación* was the impetus behind the exploration of the Cenote. His words have found ample verification. Throughout this Memoir, his data have been extensively used. Working backward from the early Spanish accounts, we have brought into use the comparative material, taking us in some cases, to the Early Classic, beginning about A.D. 300, and working forward from Landa's time, bringing us practically up to the present by the study of the Maya and Lacandon now living. This makes the chronological range of this investigation well over 1600 years. Spatially, it covers much of Middle America.

The interpretations of legend, of history, and of archæology have not always been along conventional lines. Some may have been fanciful at times. In many cases, answers have been suggested to unsettled problems, answers not claimed to be final, but perhaps helpful in bringing a certain unity to the contemporaneous Maya and Toltec of Middle America.

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