

## WHAT WE KNOW ABOUT THE MAYA

BY J. ALDEN MASON

(From a lecture delivered at the Museum on November 13th)

THE land of the Maya nation in Guatemala and the surrounding countries of Yucatan, southern Mexico, Salvador, and northern Honduras has frequently been termed the "Egypt of America." Trite as the term is, it becomes daily more and more appropriate. First employed because of the superficial resemblance of its archæology to that of Egypt, it receives especial sanction now that it is recognized that the Maya culture is probably the oldest of the higher civilizations of America, that it was the fountain head from which many elements of culture spread to the surrounding nations, and that its dated monuments may be employed as the time scale by which other American cultural phenomena can be dated.

That the Maya are not accorded their proper place by the average person who thinks of precolumbian America entirely in terms of Aztec and Inca is due to the fact that the Maya at the time of the Conquest had passed the acme of their achievement and had somewhat retrograded, whereas the Aztec were in the ascendant at that period, although their civilization, largely founded on that of the Maya, had not attained the status of the latter.

Taking into account their background and environment, the Maya made as great an achievement as any of the great nations of antiquity. If they did not in all respects attain to so advanced a goal, they had run a longer race and covered more difficult ground. The Greeks, for instance, had a long background of Egyptian, Babylonian, Persian, and Mediterranean cultural achievement to draw upon and to stimulate them by competition. The Greeks had a temperate climate, metal tools, wheeled vehicles, and draught animals to draw them. All of these the Maya lacked. Their tropical climate is, and probably always was, enervating and debilitating and one which made agriculture a ceaseless struggle against the encroaching jungle. Yet here they developed one of the outstanding civilizations of the world, without any contact, so far as has been proved, with the Old World. They were the only people in the world thus to evolve a high civilization in a tropical environment. Only a people



A corner of the so-called House of the Governor  
Uxmal, Yucatan

of great innate ability, energy, and social consciousness could have accomplished this.

The Maya were the only nation in America who had invented a system of writing and were able to make exact records. The later Aztec possessed a rather different system, but there seems to be little doubt that the Aztec system was inspired by that of the Maya. This system of hieroglyphic writing is universally acknowledged as the foremost intellectual achievement of ancient America and one of the great accomplishments of the world.

Hardly less of an intellectual achievement than the invention of the hieroglyphic system was the decipherment of it, for no bilingual inscription has ever been discovered, nor is there much likelihood of such a find. The first slight clue was found in the writings of Fray Diego de Landa, one of the first bishops of Yucatan, who described the calendrical system and figured and interpreted a few of the hieroglyphs, but in the main the glyphs were deciphered like a modern secret code, solely by deep study, trial, error, and trial again until the tentative ascription of values gave life and meaning to the inscriptions.

Although up to the present time less than half of the known glyphs have been deciphered, they give us the skeleton of Maya chronology, since almost all of those so far interpreted are calendrical, astronomical, and mathematical and refer to definite dates. A few symbols for the cardinal directions and for the colors pertaining to them, some figures of gods and a few naturalistic objects conclude the sum of the deciphered glyphs. The undeciphered half of the total number of glyphs may record the historical events which took place upon these dates. These hieroglyphs are in the main conventionalized pictures and symbols, pictographic and ideographic, but with traces of phoneticism; they are not alphabetic.

The origin of this hieroglyphic system is lost in the mists of antiquity; no tradition records the name of the originator nor the details concerning the invention. Although the oldest known date records only 96 B.C., the well-developed character of the symbols indicates that they must have undergone a long period of development, and their cursive and curvilinear nature indicates that they were drawn upon a smooth surface long before the art of sculpture developed sufficiently to permit of their being carved upon enduring stone.

In addition to these permanent hieroglyphic inscriptions carved upon stone, the later Maya possessed many books written with these

same characters. Unlike the relatively imperishable monuments, these works in which were recorded all the knowledge of the Maya and which existed in quantities at that time, perished as a sacrifice to the bigotry of the Spanish priests. Bishop Landa wrote, "I collected four thousand of their iniquitous books and images and burnt them on the public square of Tikal, much to the lamentations of the natives." The native could hardly bemoan this holocaust more bitterly than does the student of today, for only three of these priceless books, all now in libraries in Europe, escaped the searching eye and the match of the friars. These three surviving codices apparently deal with astronomical and mathematical tables and probably were primarily concerned with magical formulæ.

The fact that this lore and wisdom was confined to the priestly class was no doubt the cause of the practically complete eradication of all Maya science and wisdom at the time of the Conquest, for the native priests were, of course, but arch-devils in the eyes of the Spanish priesthood and probably few of them survived by many days the conquest of their villages. However, upon the burning of their books, the remnants of the priesthood and the more enlightened nobles, eager to save what knowledge they could from the wreck, set down in writing in the Maya language, but in the Spanish characters which by that time they had learned, as much of the history, religious ceremonial, and other lore as they could remember. It appears that every village possessed one of these works, which was known as the *Book of Chilam Balam*. These works, which were no doubt hidden from the Spanish clergy during the less enlightened days, have fared better than the codices and fourteen of them are known. One, *The Book of Chilam Balam of Chumayel* in the Brinton Collection in this MUSEUM, was reproduced in facsimile a few years ago. None of these books has ever been fully translated, for the expressions are archaic and many words have lost their ancient meanings, but most of the historical passages have been translated and give us our chief information on the course of Maya history, apparently agreeing with the evidence of archæology. My great predecessor, Dr. Brinton, took the lead in the translation of these works.

It is also through references in the books of Chilam Balam that the clues are given by which Mayan and Christian chronology may be correlated. On this question there has been some argument, for many of these clues do not agree, but the most widely accepted authorities differ by only a short time in their correlations.



One of the great arched niches of the House of the Governor  
Uxmal, Yucatan

Before reviewing the history of the Maya, let us briefly consider their calendrical system and the astronomical observations and mathematical calculations upon which it was based, for no feat of any people of equal background has ever surpassed it. It ranks, with the hieroglyphic system which records it, as the greatest intellectual achievement of aboriginal America.

All calendrical systems must be based upon an exact determination of the length of the year, a difficult feat for nations without precise astronomical instruments. The year, as we know, cannot be divided into an exact number of days or of months, consisting as it does of 365.2422 days and 29.53 lunations. These fractions have ever been the stumbling block of calendographers. The Julian year which was in use in southern Europe until 1582, in northern Europe until 1700, and in Russia until a few years ago, was twelve minutes too long, so that at the time of the Russian adoption of the Gregorian calendar it was wrong by nearly two weeks. The Maya, two thousand years before that, without accurate astronomical instruments, had calculated the length of the year to within one day in 2148 years. Our present calendar is little more accurate, being correct to within one day in 3323 years. The lunar period had been calculated with similar accuracy with an error of only one day in 300 years. In addition to this the Maya determined with great accuracy the periods of the revolutions of Venus, probably of Mars, and possibly even of Jupiter, Saturn, and Mercury. The Venus calendar was frequently employed, and they were aware, for instance, that eight solar years almost exactly equal five Venus years, and 65 Venus years 104 solar years, or two of their calendar rounds. The solar, lunar, and Venus calendars were combined in permutations so that incredibly long periods of time were calculated. Calculations up to 34,156 years have been found. Eclipse periods were predicted and very abstruse mathematical calculations made. These calculations were based mainly on accurate and long-continued observations on the solstices, equinoxes, and on two points in the agricultural year, April 9 and September 2.

The recording of the mathematical tables depended upon the realization of, and required the invention of a symbol for, the concept of zero. This is another of the Maya's claims to fame. The symbol zero is so matter-of-fact to us that we fail to realize the unusual character of the sign, a symbol for nothing. Yet without such a symbol, rapid mathematical calculations are impossible; 120 could

not be distinguished from 1200. It is the zero symbol which makes place-value numeration possible. Nevertheless, it was not until between the sixth and seventh centuries that our symbol for zero was invented in India, from whence it spread to Europe several centuries later. The Maya, the only other people in the world to invent such a concept, anticipated the Hindu inventor by a thousand years.

The Maya and the Aztec had a similar and very involved calendrical system by which, by means of permutations of names and numbers, they were able to distinguish any day in a "calendar round" of fifty-two years. The Aztec went no further than this and were unable to distinguish between days of the same name in different fifty-two year periods. The Maya, however, were not contented with this method and evolved another system, known as the "long count," by which they figured, as we do, elapsed time from an initial point. In this they counted by *k'ins* or days, *uinals* of 20 days, *tuns* or years of 360 days, *katuns* of 20 years, and *baktuns* or cycles of 400 years. There is good evidence that they also recognized a great cycle, though whether this was of 5200 or 8000 years is disputed.

With these few notes on Mayan intellectual achievements, let us turn to the much more interesting topic of Maya history.

First of all, let me say that the American archæologist recognizes no relationship between the Maya and any people of the Old World. The extreme difference in physical type, language, and the fundamentals of culture is enough far to outweigh any superficial resemblances. The Maya were and are, by blood and language, pure American Indians and their culture entirely American.

The origin of the Maya we shall allude to but briefly, since it is of small import whether they migrated from the north, south, or west or developed in their present habitat. Their march toward civilization began possibly several millenniums B.C. when they, or, more probably, the neighboring peoples of the Mexican highlands, first domesticated the wild Mexican grass *teocentli* and from it produced maize or Indian corn. With the beginnings of agriculture, life became sedentary and comfortable, leisure time for the development of civilization increased, and the population grew. Later they added beans, squash, chile peppers, cotton, tobacco, cacao or cocoa, pineapples, and domesticated bees. The invention of the art of making pottery followed close on the heels of agriculture.

Up to the time of the Christian era, our knowledge of the Maya is mainly surmise, but the wonderful civilization that sprang into full



A stucco façade with figures of the animal-headed deities of the Maya  
Acanceh, Yucatan



bloom in the next few centuries presupposes many centuries of development. During this period the hieroglyphs were developed, though probably written on perishable mediums, and the foundations of all the arts were laid. The astronomical observations on which the calendar system was erected were also made during this time.

Maya history may be said to begin in 176 A.D., the date assigned to the first vague legendary statement in the historical chronicles. However, for the period of the Old Empire, which lasted until 600 A.D., the chronicles afford us no more than a few vague, general statements; the history of this period is derived almost entirely from the study of the actual remains and the dates as carved upon the monuments. The Old Empire of the Maya, which lasted more than four hundred years, is divided by students into three periods, an Early or Archaic Period to the year 357, a Middle Period to 455, and a Great Period to 600. During this time, dozens of great cities and hundreds of smaller villages were built by the vigorous people.

The oldest of the great cities is Tikal in Guatemala, where was erected the tallest building in the Maya region, attaining with its pyramid to a height of 175 feet. The great city of Copan in northern Honduras was probably the most important of the cities of the Old Empire. The great hieroglyphic stairway, before its almost complete destruction by an earthquake, was probably the most extraordinary and wonderful sculptural product of aboriginal America. Consisting of some 90 steps of 25 feet in width and 125 feet in length, the risers were completely covered with carved hieroglyphs, composing an inscription of 2500 glyphs. It was built about 500 A.D. The architecture of Copan is typical of that of the cities of the Old Empire, the main buildings being grouped in a civic center upon great mounds of earth which elevated them like an acropolis. Large courts and plazas play a great part in the general plan. Upon the whole, however, the edifices of the Old Empire cities are rather plain and massive and without great interest; the artistic urge of the people found its expression in the sculpture of stelæ, altars, and such independent figures rather than in the embellishment of their buildings.

The most typical city of the Middle Period of the Old Empire is Palenque, a large and well-known ruin in southern Mexico. Here, owing to an apparent lack of suitable stone for carving, most of the decoration is in stucco relief, which the Maya made by burning the



A Maya Indian of today making baskets for picking coffee  
Guatemala



A Maya Indian of today making baskets for picking coffee  
Guatemala

plentiful limestone. In this modelling the Maya artist achieved as admirable results as in stone carving, and the stucco reliefs at Palenque are among the most admired examples of Maya art. In architecture, the most important feature is the tower which originally consisted of four stories, communicating by interior stairs. Buildings of more than one story and interior stairs are both of great rarity in the Maya area and speak highly for the ability of the Maya builders in those early days of architecture.

The Great Period or the Golden Age of the Maya reached its height at about the year 520 A.D. The acme of Maya culture was attained at this time when they must have enjoyed a civilization far above that of our Teutonic ancestors in Europe and one probably rivalling any in the world at that period. Some seventeen cities known to archæologists were flourishing in the foothills of northern Guatemala and the surrounding region. The arts and sciences were pursued and the common people must have had a comfortable existence.

The great city of this period was Quirigua in Guatemala. It is here that the most beautiful and largest examples of Maya sculpture are found, the architecture of the city being of slight importance. The stelæ, which, like those at Copan, bear dates which indicate that one was erected every five years, are exceptional both for their size and beauty.

About the year 600 A.D., for some reason which has not yet been determined, the great cities of Guatemala seem to have been abandoned. Numerous explanations have been advanced for this, such as devastating plagues of yellow fever, earthquakes, the impoverishment of the soil due to too intensive agriculture, or a change in climatic conditions with increase in rainfall. At any rate, no date later than 600 is found in any of the cities of the Old Empire. For the next three and a half centuries the Maya were in a period of transition, during which time, apparently, the center of the civilization moved from Guatemala northward toward the tip of the peninsula of Yucatan. Here sprang up the Maya civilization anew in a glorious renaissance which lasted from 980 to 1450. New, more, and even more beautiful and admirable cities sprang up; architecture, sculpture, and all the fine arts experienced a rebirth, but architecture rather than sculpture is the crowning glory of the New Empire.

The history of this period is mainly derived from the native chronicles in the Books of Chilam Balam and others, for few dated



Descendants of the ancient Mayas; an Indian family of Guatemala

monuments are found in the New Empire. The traditions are, however, so full and detailed as to afford a clear picture of the events of this period, and they are substantiated and augmented by archaeological evidence.

Scores of cities sprang up, of which three stand preëminent, Mayapan, Uxmal, and Chichen-Itza. Of these, the first two were founded in the tenth century, but Chichen-Itza had a far older history, having been first settled as far back as about 500 and subsequently abandoned. It has thus the longest recorded history of any city in America, 800 years. About the year 1000, these three cities, each the center of an important tribe and ruled by aristocratic nobles, formed a confederation by which the country was to be jointly ruled, and for nearly two centuries the land enjoyed peace and prosperity, the fine arts flourished, pyramids, temples, and other grand structures sprang up everywhere, and the land supported a great population. This period, from 1000 to 1200 A.D., was the New Golden Age of the Maya.

Today, naught but mounds marks the site of the mighty city of Mayapan, but the ruins of great Chichen-Itza and Uxmal still rear their stony spines above the Yucatecan jungle, attracting thither scientists and tourists from the world over. They are the most interesting ruins in America.

For, about the year 1190, jealousy and overreaching ambition put an end to the second Golden Age of the Maya which had flourished for nearly two centuries. The nobles of the three allied cities fell out and civil war ensued. At first, the quarrel was apparently between Mayapan and Chichen-Itza and the resulting conflict changed the complexion of Mayan culture decidedly. The ruler of Mayapan seems to have called to his aid mercenaries or allies from the Valley of Mexico far to the northwest. These allies were the Toltec, the predecessors and cultural tutors of the Aztec. They enjoyed a high grade of culture, practically equal to that of the Maya themselves, with whom there seems to have been considerable interchange of cultural elements. The Toltec at this time had probably just passed the height of their glory and their empire was beginning to disintegrate as did that of the Maya after them. It was, however, nearly two centuries before the Aztec began their phenomenal rise to power. The Toltec were probably still occupying their great capital at Tula, which is now generally identified with the great ruined city of San Juan Teotihuacán near the City of Mexico, where



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they erected pyramids, one of which covers a larger area than any in Egypt. It is probable that the growing influence of the Toltec in Yucatan, exciting the hostility of the native Maya, was the primary cause of the civil war. Mayapan seems to have been the center of Toltec influence in Yucatan. Be that as it may, there is little doubt that the lord of Chichen-Itza plotted against his colleague of Mayapan, who, by Toltec aid, defeated him and took possession of Chichen-Itza.



Seated stone figure  
Department of Quiché, Guatemala

Then began the Toltec régime in Yucatan which lasted for some two and a half centuries from 1200 until about 1450. Throughout the greater part of the country, the alien presence left no mark, but in the three great cities the Toltec influence was strong. Uxmal held aloof and yielded to the new fashion only in the erection of a ball-court; Mayapan must have been thoroughly Toltec in art and architecture, but that city has been utterly destroyed. Chichen-Itza was enlarged and beautified by a number of imposing edifices in Toltec or Toltec-influenced style in a new section of the city.

Toltec buildings are differentiated from the Maya by a rather lighter and more flowing style, by buildings supported by columns, and especially by columns in the shape of conventionalized feathered serpents, the emblem of Quetzalcoatl or Kukulcan. The ball-court, examples of which are found at Chichen-Itza and Uxmal, is a Toltec element. Most of the more ornate and beautiful buildings at Chichen-Itza were built during this period.

Naturally the rule of the alien Toltec over the native Maya became more and more arrogant and unbearable, until at the end of two and a half centuries of oppression, the natives were goaded to desperate rebellion. Under the leadership of the lords of Uxmal, who had heretofore kept neutral in the conflict, the Maya forces united, attacked Mayapan, and slew all the members of the reigning house about the year 1450. Mayapan itself was so utterly destroyed that today but a few mounds and scattered stones are to be seen.

The fall of Mayapan marked the end of Maya civilization. Apparently the entire country fell into civil war and discord. Chichen-Itza, Uxmal, and most of the other large cities were abandoned and no others built in their places. Famine and pestilence, the latter doubtless introduced by the earliest Spanish explorers along the coast, depleted their numbers, and close upon its heels followed the conquerors themselves with their muskets, ferocious dogs, and inquisitorial flames. The first landings of the Spanish on the coast were in 1511 and 1517, but it was not until 1527 that the conquest of the country was attempted. For fourteen years the Maya carried on a desperate resistance, succumbing at last to the superior arms of the Europeans.

The independent spirit of the Maya was not entirely broken, however, and after three centuries of Spanish and Mexican rule they again revolted, and successfully. In 1847 they succeeded in recapturing most of Yucatan except the larger cities. Northern and western Yucatan have since come again under civilized Mexican control, the independent Maya having retired to eastern Yucatan, where, in the territory of Quintana Roo, they continue to preserve their independence free of alien control, and to practise their old customs and rites.

Today the Maya Indians still inhabit the peninsula of Yucatan and much of Guatemala, their numbers estimated at 300,000. They are a fine race of American Indians, intelligent, sturdy, independent, industrious, and cleanly to a superlative degree. Most of them work

in the great fields of agave or henequén from which comes our sisal hemp for binder-twine. Many of them speak nothing but the Maya tongue and every Yucatan plantation owner speaks Maya as he does Spanish. But with the extinction of the leisured class, the priests and the nobles, all the accumulated wisdom and craftsmanship of millenniums were soon forgotten and today only the great abandoned structures in the dense jungles bear witness to the heights attained by the Maya, one of the greatest of the nations of antiquity.

The architecture of the Maya is naturally their major claim to distinction; no other architecture in primitive America can compare with it. Its merit lies, however, more in point of ornament than technique of masonry. Technically it betrays the faults of a new art, one not highly developed or freed from the bonds of experiment. Most Maya buildings were built upon pyramids which differ from those of Egypt in being solid without mortuary chambers, in being built of rubble or concrete instead of cut stone, and in serving as foundations for buildings, being furnished with broad exterior stairways.

Typical Maya buildings are of two types, small temples and larger palaces, the former generally on high pyramids and consisting of a few rooms, the latter low, broad, and containing many rooms. The common people, of course, lived in small perishable huts of wood and thatch like those occupied by their descendants of today.

The topic of Maya art is one that should be discussed only by an artist. It is enough to say that, with few exceptions, all artists who have investigated it hail it as one of the great art schools of the world, and the movement for a renaissance of Maya motives in modern art is gaining impetus daily. While hardly on a par with Grecian art, it ranks with any of the earlier schools and in many respects exceeds them. Certain carvings display a praiseworthy knowledge of the principles of foreshortening and composition. Like the ancient Greeks, a fact which is not commonly known, they painted their monuments, buildings, and sculptures with bright colors, of which sufficient traces have remained to enable us to restore them.

The sculptor's art achieved a superlative degree of eminence among the Maya, especially those of the Old Empire, both as regards carving in relief, in the round, in wood, and modelling in stucco. It ranged from the working of small amulets, ornaments, and beads of jade and other semi-precious stones, to that of great monoliths, altars, and the decorative embellishment of their edifices, which was carried

to a point of exuberance. It must again be stressed that this work was done, as everywhere in America, without the use of metal tools, solely by the use of harder stones and sand, coupled with endless patience, time, and "elbow-grease." The labor of making such a great and wonderful façade as that on the Palace of the Governor at Uxmal, 725 feet long, 10 feet wide, and containing not less than twenty thousand cut stones, can hardly be appreciated. Carving



Large Maya censer of unpainted pottery  
Chipál, Guatemala

in wood was probably highly developed, but only a few examples, mainly on the lintels of buildings, have been preserved for us.

In the lesser and more industrial arts also the Maya equalled the work of any other people of America and in many respects of any in the world. In the weaving of textiles, for instance, they may have equalled the Peruvians whose wonderful fabrics excite the admiration of textile experts and artists. The early conquerors state that the Maya were the most expert weavers in New Spain and that the Spanish mistook their fine cotton garments for silk. Unfortunately, not a piece of Maya textile has been preserved, owing to the damp-

ness of the climate, and our sole knowledge of its excellence is derived from such reports and from the depiction of textiles on Maya monuments.

The work in pottery was admirable. It took the form of figurines which may have been used either as idols or dolls, plain vessels for cooking, carrying water, and burying the dead, and more ornate



Large urn or censer of Maya manufacture  
Chipál, Guatemala

and delicate vessels for ceremonial usages. Among the latter are urns of moderately large size and thick pottery which are presumed to have been employed as censers. These are ordinarily tall and of hour-glass shape with a high basal septum, the two vessels figured on pages 367 and 368 being typical of this class of object. The ruder vessel, NA-11370, is unpainted while the other, NA-11320, bears a simple ornamentation in red, yellow, and black.

The finer vessels are of many different shapes, types and methods of ornamentation. One of these, NA-11088, of graceful form but unpainted, is shown on this page. The three relief heads, apparently portraying a face in repose, are excellently made. This specimen also illustrates the labor of building up vessels in the laboratory of the MUSEUM from the very fragmentary condition in which they are often found. Other vessels are of more grotesque form, such as No. 12688 figured on page 370, portions of which are decorated with



A dainty Maya pottery vase, restored in the Museum  
laboratory  
Chamá, Guatemala

designs in red and black. Both of these were probably used for the storage of water.

Pottery vessels of the better class, however, are decorated either by carving or painting. Among the most beautiful of Maya objects are the pottery vessels decorated with carving in low relief, of which the vase No. 12696, shown on page 371, is typical. This is, like most of the vessels of this type, unpainted. Two lively figures, attired with rich cloaks and elaborate headdresses and ear ornaments, are apparently seated facing an ornate object between them. This

may be purely decorative but more probably represents some esoteric concept the meaning of which has now been forgotten.

The most impressive of the pottery objects, naturally, are those decorated with painted designs. One of the most striking of these, No. 12700, is reproduced on page 372, much of its beauty lost, however, by the omission of its coloring. It is a tripod bowl, a form very



Maya pottery vessel with grotesque relief face  
Department of Quiché, Guatemala

typical of Mexico and Central America, decorated with designs in bright colors, mainly red, orange, yellow, and black. The central figure is most difficult to analyze but probably represents one of the anthropomorphic deities of the Maya of the Department of Huehuetenango, Guatemala, from whence the specimen comes. The extremely conventionalized design apparently may best be interpreted as a predatory bird with human head.

The finest and also the rarest of Maya pottery objects, however, are the large cylindrical cups decorated with scenes from Mayan religious ceremonies or other figures in bright polychrome. This MUSEUM possesses an exceptionally good collection of such vessels and is now engaged in publishing these, as well as the finest examples of Maya pottery found elsewhere in the world, in a large portfolio



A Maya pottery vase with carved and incised decoration  
Department of Quiché, Guatemala

album. Six of these exquisite vessels in the collection of the UNIVERSITY MUSEUM are reproduced on the adjacent pages, with their beauty, however, diminished by the absence of the rich coloring which characterizes them, and in which red, orange, and black predominate. All of these are from ruins in the Department of Quiché and were probably made by the Quiché, one of the highland Maya tribes.



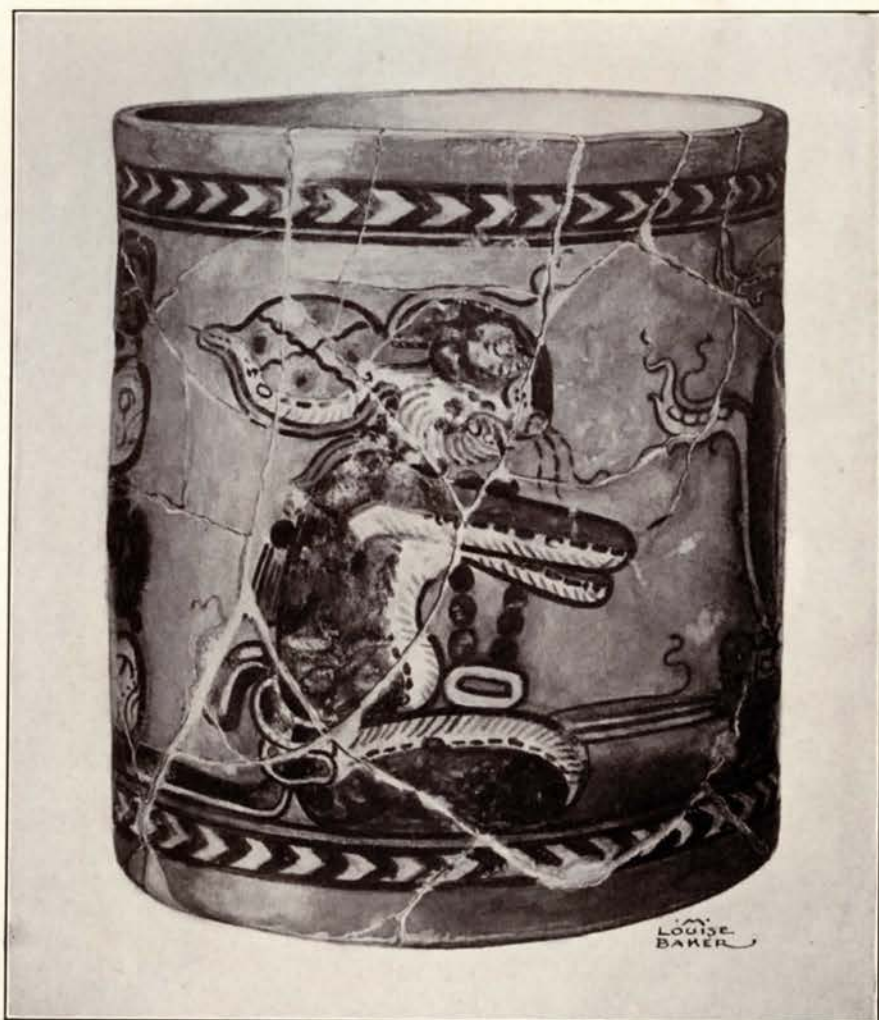


Maya tripod bowl with conventionalized designs in bright polychrome  
Department of Huehuetenango, Guatemala



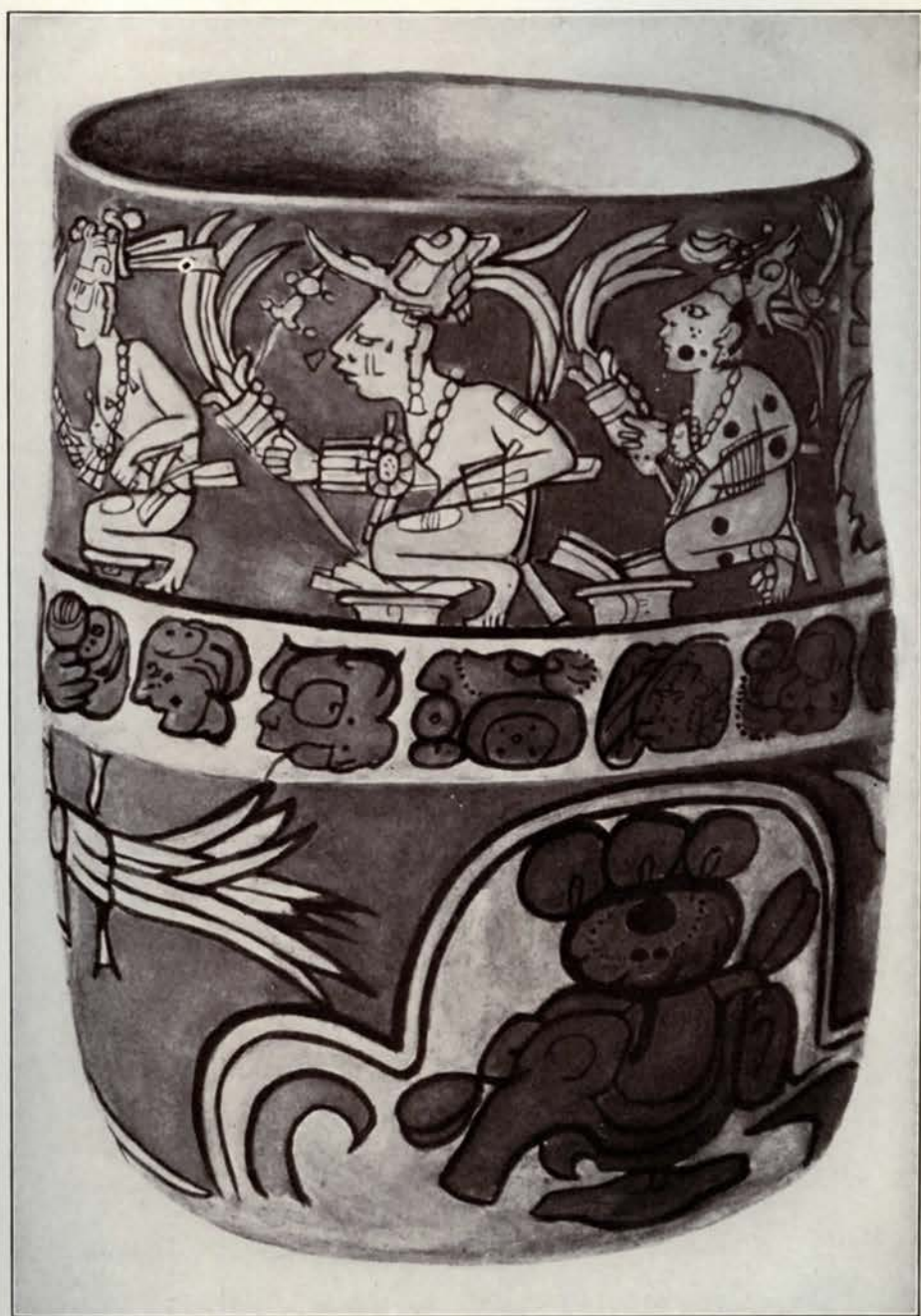
The Bat God of the Maya painted on a large pottery cup  
Chamá, Guatemala

The Bat God, the principal figure on vessel NA-11222, shown on page 373, is frequently represented in Maya art, especially in the codices and on pottery vessels. The outspread wings, the hooks on the hands, and the peculiar upturned nose are well portrayed, but



One of the fine polychrome painted vases of the Maya, showing the Rabbit God Chamá, Guatemala

the general human character is obvious. The curved lines proceeding from the mouth represent speech. At the right may be seen a vertical line of hieroglyphs, which, however, are probably of purely decorative value.



Large painted pottery cup depicting a religious ceremony and ornamented with hieroglyphs  
Department of Huehuetenango, Guatemala



Extension of the decoration painted on a large pottery cup depicting Maya priests or nobles engaged in a ceremony  
Chamá, Guatemala

Another of the lesser deities was the rabbit who is shown painted on the polychrome vase NA-11185 on page 374. The large ears and other characteristics of the rabbit appear in rather a conventionalized and anthropomorphic style. A large necklace with pendent ornament hangs from the neck and the usual decorative line of hieroglyphs is seen at the left.

The vase shown on page 375, No. 12699, is of a slightly different character. It is divided into two equal parts by a horizontal medial band of hieroglyphs. On pottery vessels the hieroglyphs are chiefly used as a decorative motive and not with the intention of dating the vase. In the upper zone is shown a ceremony of some kind, the row of costumed figures, facing towards the left, holding in their hands ceremonial objects of uncertain nature and kneeling before vessels, probably of pottery, which presumably contained a sacrificial offering.

The extension of the decoration on another of these vessels, NA-11221, is shown on page 376. This is a scene of great interest. Three seated figures, probably priests or nobles, are shown facing a central object which presumably depicts a basket of offerings. The dress of the Maya, who, in their tropical climate, certainly wore a minimum of clothing, is shown to consist mainly of a breech-cloth, but the profusion of ornaments, especially as regards headdress, is well shown. The central hieroglyph doubtless states the character of the ceremony.

One of the most unusual and interesting of these vessels, NA-11701, is shown on page 378, and the extension of its surface on page 379. It represents a procession in which one of the grand nobles is carried in his palanquin or hammock by servants. In his hand he holds what is probably a fan made of basketwork, his headdress is as elaborate as usual, and his necklace is large and prominent. Under him walks his dog, growling menacingly; this is unusually well drawn and gives a good impression of the dogs possessed by the Maya. The black spot on the back is shown on almost all such drawings, but whether it represents a natural characteristic of the breed or not is uncertain. The retainers or servants are more simply attired. Two of them support the poles which bear the noble and another following close behind carries his master's baggage on his back with the aid of a band across his forehead. The next three are probably the great man's bodyguard, bearing staves or weapons, and the last man we may suppose to be his secretary or valet.



A Maya painted vase of unusual interest, representing a noble on a journey  
Ratinlixúl, Guatemala



A Maya dignitary carried in his litter and attended by his bearers, porter, bodyguard, aide, and dog. From the decoration on a large painted cup  
Ratinlixül, Guatemala



A few words concerning Maya character and religion will fitly close our sketch of this nation. They were on the whole a peaceable people. Before Toltec times, illustrations of warfare and strife were few. The stelæ and other monuments, instead of portraying and perpetuating the glory and warlike deeds of mighty kings and individual personages, mark the regular passage of time and possibly record the major activities of the people of the city.

Religion, as among all earlier peoples, was of transcendent importance and permeated every phase of their life. They were, like the Greeks and Romans, polytheistic, with a few major gods and numerous minor ones, anthropomorphic animals such as the bat, jaguar, serpent, and quetzal bird being prominent among the latter. The priesthood was highly organized and potent, the priests and nobles having presumably been identical in earlier times. Ceremonial, magic, and ritual doubtless played the major part in their religion, and sacrifice was all-important. Sacrifice, however, was mainly of personal possessions; human sacrifice was probably unknown until Toltec times and never attained great prominence.

Such is a succinct and, we fear, too much condensed epitome of what we know about the Maya, the greatest of the native nations of America, a people worthy of much more study than has heretofore been accorded them. When American archæologists, patrons of science, and the people at large shall take as much interest in this strange, purely American nation as they do in the ancient peoples of Egypt, Babylonia, and Greece, our knowledge and our admiration of them will be by so much increased.