

NEW MAYA MONUMENTS AT UNIVERSITY MUSEUM

Recently received from Piedras Negras, Guatemala, stelae 13, 14, 40, lintel 12 and leg of altar 4. Already here on exhibition ~~stela~~ ^{stela} ~~12~~ 12, lintel 3, throne 1. Exported according to contract with Guat. Gov. Equal number of monuments sent to them. Most of these known since 1900, stela 40 discovered about 1920, lintels 12, 3 and throne discovered by expedition. Not only the only large original Maya monuments in the U. S., and almost the only ones in the world outside of Central America, but the very finest of all known Maya monuments. Art one of the greatest schools in world. Our Maya collection by far the most artistic in world.

Maya of Old Empire. Conservative archeologists admit no European contact. Admirable art.

Task of getting them out. Mahogany logs sawn to planks by hand and boxes made. Monuments boxed, loaded on wagons. Road about 35 miles long made through forest to foot of great falls. Then wait from May until January for river to be low enough. Rafts made of light strong logs and monuments run through intervening rapid. In bond through Mexico to seaport of Alvarado^v Obregon, then by steamer to New Orleans⁷ and other steamer to Philadelphia. Monuments for Guatemala, from ruins in far northwest Guatemala to Guatemala City, although only about 175 miles as crow flies, on account of roadless forest, were sent the same way to New Orleans, by steamer to Puerto Barrios and by railroad to Guatemala City. Some of them were boxed in April, 1931 and only just arrived, April 1933. Some spent two rainy seasons in forest and box of one came apart on truck at Museum, rotten, barely got here. All were placed too close to river and were covered ten feet by flood, full of sand silt when opened,

but as they had already spent a thousand years in the rain, no damage done.

All contain hieroglyphs in addition to carving, these glyphs giving exact day of erection or dedication in Maya calendar. Unfortunately the question of the exact correlation between the Maya and our calendar is still under dispute, there being two principal schools, one of which is probably correct, each proposing a day-for-day correlation. According to one scheme, the dates on these monuments would be from according to the other, from Some of the monuments sent to Guatemala run a little earlier, either to

One of the ~~stones~~ monuments received here is much earlier, being the oldest date so far found at the city. On new lintel with interesting history. This date either or . This stone in two parts. Right half had been used as building stone in wall of later temple. Tooled shape noted and stone pulled out, found to have smooth plaster surface, no carving noticeable. Chipping off plaster revealed carving beneath. Other half of stone had been thrown out with debris from wall the previous year, ^{thrown} ~~tumbled~~ down pyramid and jumped up into crotch of roots of inverted stump so that it was not covered by later debris. Shape and dimensions found to be same with same smooth plaster face. Fitted to other stone, plaster chipped off revealed date. Cleaning finished at museum. Had evidently been used in earlier as a lintel temple, fallen or destroyed, ~~as a lintel~~. Broken stone then used in building wall of later temple. May be many more such broken monuments used in walls.

~~Lintel 3, already given publicity~~

Great task of carving and erecting stelae. All carved without metal tools, probably using flint, obsidian and sand. Monuments 16 ft. high and over 6 tons weight transported and set on end ~~with~~ by man power without animal help. Probably had only ropes and many men.

Lintel 3 already given publicity.

Throne very interesting and important as supplementing scene shown on lintel 3, which shows ceremony with figure seated on a similar throne. Consists of table-top, 2 legs and back screen, all of carved stone. Holes for attachment of tassels and jaguar robe as shown on lintel. Missing parts of throne and scattered condition in which found prove intentional destruction, probably after capture of city. All other monuments fallen, most of them broken and all faces mutilated. We know absolutely nothing historically of people who lived here. Date of throne
Length of screen 6 ft.

Lintel 12. Oldest sculpture and date at P. N. Circumstances of discovery given above. Rather archaic and poor technical carving, lower part much eroded, erosion probably before it was broken and reused. Date

Leg of altar, one of 4 legs supporting table. High relief, representing head of god. *Size*

Stela 12, probably finest in whole Maya area. Great freedom of art, excellent composition and line. Note foreshortening of thigh of principal figure. Height 10 ft., 4 in, width 40 in, thickness 18 in., Date . Shows ~~Maya/Chief~~ 12 human figures. Maya captor chief with flanking assistants, supplicant chief with ear-ornaments. At base 8 prisoners bound with rope, probably for sacrifice, degraded by removal of ear-ornaments.

Stela 40. In two parts, massive, about 16 ft. high. Part of undecorated part had to be sawn off base to get in hall. This part will be kept for possible replacement. Weight over 6 tons. Shows figure sowing corn which falls on head of Earth-Goddess, shown with metate or corn-grinder. Date

Stela 14, one of finest. About 9 ft 5 in tall. Superficial Oriental appearance, with figure seated in niche, so-called "Buddha" figure. probably represents a god. Worshipping figure, probably priest, with feather wand in low relief below. Date

Stela 13, much eroded and broken but very high art. Also shows chief or deity sowing corn. "One of the finest examples of Mayan Sculpture, showing a fine sense of composition and a considerable knowledge of perspective" (Spinden)

Date About 5' 6" high.

[1933]

For Blom's new quarterly
"Maya Research"

THE WORK OF THE ELDRIDGE R. JOHNSON MIDDLE AMERICAN EXPEDITIONS OF THE UNIVERSITY MUSEUM, PHILADELPHIA, AT PIEDRAS NEGRAS, PETEN, GUATEMALA.

BY J. ALDEN MASON, ~~AND~~ LINTON SATTERTHWAITE, JR., and Mary Butler.

Excavations and other researches have now been conducted for three seasons, 1931-1933, at the Maya "Old Empire" city of Piedras Negras in Peten, Guatemala, by the Eldridge R. Johnson Middle American Expeditions of the University Museum of the University of Pennsylvania in Philadelphia. The first two expeditions were under the leadership of Dr. J. Alden Mason, the third under Mr. Linton Satterthwaite, Jr., who was assistant director of the first two expeditions. Other members of the expeditions have been Mr. Fred Partis and Mr. T. Egan-Wyer, engineers, and Miss Mary Butler and Mr. David W. Amram, Jr. It is not yet (February 1934) certain whether the expedition will return again in 1934.

The work is being conducted under a contract with the Guatemalan Government, under the terms of which ^{that} ~~the~~ government retains title to the objects ^{recovered} exported, half of which are sent to the National Museum of Guatemala, the other half to the University Museum on loan.

The most spectacular feature of the work has been the exportation of some of the large sculptures sent out by the first two expeditions. To Philadelphia were sent Stelae 12, 13, and 14, discovered by Maler in 1899, Stela 40, discovered by Morley and Ricketson in 1921, a leg of Altar 4, discovered by Maler, Lintels 3 and 12, and Throne 1, the latter three discovered by the Museum Expeditions. These are all now shown in the Maya Hall of the University Museum, together with other objects such as a stone from a ball-court carved with the figures of two men apparently dressed for the game, a restored stucco head, and many smaller objects. An account of this phase of the work, together with illustrations of the monuments, has been published in the Bulletin of the Pan American Union for February 1934.

To Guatemala were sent Stelae 6, 15, 33 and 36, Lintel 4 and three legs

of Altar 4, All of these were discovered by Maler except the torso of Stela 15 which was found by Morley and Ricketson in 1921. All are now exhibited in the Salón Arqueológico del Museo de Guatemala in Guatemala City, and are described and illustrated in the September 1933 issue of the Anales de la Sociedad de Geografía e Historia de Guatemala. Half of the smaller objects are also displayed there, including another restored stucco head and a carved ^{and dated} ~~stone~~ ^{fragment,} ~~stone~~, apparently from a second throne.

To export these monuments it was necessary to build a road about thirty miles long from the ruins around the great rapids and falls of the "Raudal Grande" of the Usumacinta River to San José. To this place they were carried on wagons, then placed on rafts, run through a small rapid and then down the river to Álvaro Obregón where they were loaded on steamships.

The more scientific aspects of the work have produced many very important results. With the purpose of placing these results promptly in the hands of specialists, they are being published in a ~~very~~ limited edition of small mimeographed papers entitled "Piedras Negras Preliminary Papers" and sent to a selected list of interested specialists ~~and~~ ^{though} not to libraries, ^(since they are not considered as final or exhaustive.) Two of these have to date (February 1934) been published, a General Description, ^{(No. 1),} and a report on the South Group Ball-Court, ^{(No. 2).}

In 1932 Mr. Parris made a complete survey of the ceremonial centers and small parts of adjacent areas, and drew up a detailed map showing just about one hundred numbered pyramids, and masonry structures, ^{mounds, (This map was reproduced in Preliminary Paper No. 1.)} In 1933 he devoted himself mainly to the ^{peripheral} ~~outlying~~ small structures, ^{which were probably mainly} ~~domiciliary in purpose.~~ ^{domiciliary in purpose.}

About seventy-five of these hundred mounds, pyramids and structures are in the three principal ceremonial groups, and thirty-five, including all the largest ones, have now been superficially investigated, at least by trenching, sufficient to afford information on their architectural nature. About eleven

buildings have been more or less thoroughly excavated. Most of the temples mentioned by Maler have been rather thoroughly excavated, including the so-called Temple of the Eight Chambers (P-7), the Temple of the Stela of the Victims (O-13), the so-called Temple of the Three Stelae 9-11 (J-3), the Temple of Stelae 22-23 (O-12), the Temple of Stela 29 (R-3), and the Temple of Stelae 32-37 (R-5). All the other structures shown on his map are among those that have been trenched.

While our acquaintance with Piedras Negras has enhanced our admiration for Maler's energy, perseverance and pioneer ability, yet we must report with regret that, here at least, little reliance can be placed in his plans and descriptions of structures. He makes bald statements of facts which were not ^{on first examination} evident to us and which excavations failed to corroborate. For instance we found no trace of the rear "stairway, built against the middle of the rear wall of the temple (O-13) (which) once led up to the flat roof" (p.59), nor is there any indication that the roof was originally flat. Also the broad front stairway, of which Maler said there was no trace (p.58), was readily revealed. *This "Temple of Stelae 29 and 30" (R-3 and R-4) face thirty degrees east of north instead of northwest as on his plan.*

A more egregious misstatement concerns the Temple of the Eight Chambers, the plan of which has been extensively reproduced as an example of an unusually highly developed type of Maya architectural plan. He states unequivocally that each wing had four chambers (p.52), but his only basis for this statement was that the width of the front and rear chambers is so great that he could not conceive of them as being single rooms, and so posited the existence of intermediate walls. There was no trace of these walls either before or after excavation; the structure consists of four ^{wide} rooms in addition to the central sanctuary. Many other features of the outer walls and of its doorways are also incorrect on his plan.

Excavations revealed frequent instances of superposition of buildings, the enlarging of a pyramid by covering up the earlier pyramid and its apical structure, after dismantling the roof and upper walls of the latter, with rock fill, and building another larger pyramid surface, surmounted by a temple at a higher level. Up to five building periods have been distinguished on the Acropolis, and ~~in~~ⁱⁿ one free-standing pyramid (K-5) two buried structures were found under the uppermost one.

The researches indicate that the masonry vault was introduced (probably not ~~developed~~^{originated}) at Piedras Negras at a middle period in the dated history of the city, and that at an earlier period masonry walls were used ~~only~~^{only} with roofs of more perishable materials, probably including beam and mortar roofs, and also buildings were made entirely of perishable materials with supporting wooden posts. In the southern section of the city, where the oldest dated monuments are found, most of the structures apparently had no stone vaults, while in the apparently later parts of the city such non-vaulted structures are the exception at the surface ~~and~~^{but} have been found underlying vaulted structures. Excavations do not as yet indicate, however, that there was here a uniform evolutionary development from buildings made entirely of perishable materials to those of masonry walls and perishable roofs, and then to those built entirely of stone. It is probable that all three were in simultaneous use at the close of the period of occupation.

On one of the pyramids gigantic grotesque stucco masks ~~bearing~~^{resembling} ~~superficial resemblance to~~^{analogue} those at Uaxactun were found. Two ball-courts were excavated, giving further proof, if any were needed, that this feature is an element of the Maya "Old Empire". One is in the apparently older section of the city, the other in the probably later section, and the two present differences in detail that may be significant.

Aside from structural considerations, all but one of the pyramid temples investigated are relatively simple single-chambered affairs, though two have narrow doorways in the rear. The exception, Str. O-13, has three chambers, one behind the other, with additional small chambers on either side. It is probably the composite result of two or more periods of construction.

There appear to be a number of very small single-chamber ceremonial buildings on low platforms which may provisionally be compared with the Shrines of the East Coast of Yucatan, though these are larger and have only one narrow low doorway. The central sanctuary of Maler's "Temple of the Eight Chambers" (P-7) is one of these, later surrounded by four large chambers which give it a unique plan.

What we call a "double-range palace" occurs only on the Acropolis, and is very similar to the palace buildings at Palenque, except that transverse end rooms are here added, and each building stands free of the others. The multi-chambered buildings usually associated with the term "palace" in other areas appear to be absent, though ~~the long principal galleries of our so-called palaces have been cut up to some extent by apparently secondary partitions.~~

The double-range palace seems to have been modified to form long single-range buildings which we find built out from platforms supporting the former type. In these "built on" buildings, there seems to be little doubt that the rear half-vault is a true cantilever, its weight consciously balanced by masses of masonry in the hearting of the platform against which it was built. In the lightest of the double-range palaces, cantilever action alone was apparently insufficient to prevent vault collapse, and vault beams or roof, or both, must have been essential to stability.

One small non-vaulted building on a low platform consists of two

parallel chambers, one behind the other. Excavations in one supposed house-mound indicate non-vaulted small structures placed around three sides of a small court. Apparently the walls were of stone, but only at the base.

A peculiar low platform within the ceremonial areas has been cleared. It was distinguished by the presence of twenty-five small cylindrical altars, and by uncertain evidence of a late reoccupation of the city.

Masonry piers, always of the thickness of the walls, are much in evidence, both in vaulted and non-vaulted buildings. Single, double and triple doorways, formed by the introduction of these piers, occur in the pyramid temples and in the palaces. But on the latter buildings the number of adjacent doorways is usually much greater so that in effect the main chambers become open colonnades.

Apart from the "shrines" all observed doorways are fairly wide, and the variation in the width of piers between them is not great. Where the wall is thick, the piers are nearly square. Known vault-spans vary from 1.40m to 2.88m, and the thickness of vault-supporting outer walls varies from .52m to 1.30m, with the thinnest walls under the widest span. A progressive mastery of the technical problems of vault erection, once this type of roof was introduced, appears highly probable. Most vaulted types are duplicated in non-vaulted buildings. The widest known chamber (5.00m) was non-vaulted, as would be expected, but very narrow chambers with thick walls but without vaults are also known. It is thus impossible, except in the case of extremely wide chambers, to deduce the type of roof from ground plans alone.

Masonry is, in general, of the slab variety, with true veneer entirely absent. Vaults are universally faced with corbelled slabs especially selected for thinness, but the faces are not beveled and there is no hint of

the specialized tongue of northern Yucatan, which seems to have its analogues elsewhere in the Old Empire.

Vault beams were used, and the few sockets which were left are deep.

Exterior stucco decoration undoubtedly played a large part in the adornment of facades, but except for tiny remnants, the upper zones are now all fallen.

The stratigraphical investigations on ceramics made by Miss Butler revealed some tendencies as regards preponderance of certain types at certain periods, but no very definite results were obtained.

and at least one single-range "palace,"
Buried beneath the floors of certain temples, beneath stelae ^{table} and altars, beneath certain upright small cylindrical ceremonial pillars in ^{which we call "column-altars"} some temples, and also under open pavements were found many ceremonial caches, usually interred in pottery vessels, the latter generally undecorated. These caches almost invariably contained "eccentric" flint and obsidian objects, and generally objects of shell, bone and jade ^{or shell}.

A total of ten burials were found under several varied conditions. Of these, three were under a probable house floor, two in or under the pavement at the base of a pyramid, one within an Acropolis platform, one in a cave, one in the center of a ball court, and one under a plaza floor.

The most important of these was of a person, probably a young man, apparently of high rank, buried in a stone-roofed vault in an important situation. With him were ^{remains of} buried two children. The associated grave furniture included a large mosaic mirror of hematite, ten inches in diameter, ^{iron pyrite} two hematite supposed headband fillets, many ornaments of very fine jade, ^{pyrite} one of them with incised hieroglyphs, a great quantity of small shell plaques,

four of which bore incised hieroglyphs, and other objects of pottery, bone, shell, flint, obsidian and jade. The burials show a surprising variety of features, in position and character of the grave structure, and in other respects. No flexed skeletons have been encountered.

Piedras Negras pottery seems at present to constitute a distinct ceramic unit. It comprises polychrome, orange, yellow, red, brown, mottled, black, and unslipped wares, and is marked by an extensive use, in polychrome ware, of negative painting. Although this technique appears sporadically in the Maya area, the orange-yellow and white designs on a red background that characterize it at Piedras Negras ~~do not seem~~ ^{have not} as yet ~~to occur~~ ^{been found} at other sites. Another distinctive feature of Piedras Negras pottery is the use of a jar with constricted neck and a shoulder with an approximate right-angle bevel, a shape rare in the Maya area. Shapes include cylinder jars, jars with constricted necks, horizontally flanged bowls with ring base or tripod feet, beveled bowls, ~~low~~ bowls with flat bases and straight or flaring sides, and fine rimmed lids for bowls. Decoration is chiefly painted, although there is some incising and champlévé, and some low-relief carving in a fine orange ware. On the negative side, the following items should be noted:-the absence of effigy feet, of handles, of tetrapods, of spouted and shoe vessels; the almost complete lack of effigy vessels, modelled decoration, and ring feet.

The pottery comes from two sources, one the general excavation work, ~~the material from which is valuable mainly for comparative purposes~~, the other stratigraphic cuts, from which an attempt has been made to work out tentative sequences in shape and ware. These indicate the same range of wares, ^{in varying quantities and shapes, throughout the investigated stratigraphic range,} ~~from beginning to end of the city's occupation~~, with the use of polychrome apparently decreasing from the ~~earliest times on~~ ^{lowest levels up,} and suggest a comparatively short occupation of the city. There are ^{influence from or} evidences of contact with the High-

✓ lands, with Copan, with Tabasco, with British Honduras, ^{and} ~~with~~ with the Peten, but none as yet which warrant an attempt at correlation.

The frequent occurrence at Piedras Negras of mouldmade figurines in a finely-executed, realistic style, shows that the mouldmade figurine belonged to the Old Empire, and was not exclusively a late product. A figurine^s of the ^{so-called} Diving God, also considered late heretofore, proves this concept to have been early as well. There are no "archaic" figurines from this site, and the implication is that figurine-making, like pottery painting, was already well-developed by the people who settled Piedras Negras.

Memorandum on the Piedras Negras Project
of the University Museum

When Europeans first entered the Americas they found what is really a central area occupied by peoples of high culture or by descendants who had lost their former complexity of life. As one traveled away from this center - east and south from the highlands of South America, east and north from Central America and Southern Mexico - the complexity of life decreased. As an example in North America one might have traveled, in A.D. 1500, going north and northeast from the lowlands of Guatemala. He would have begun among the dead bones of the Maya "Old Empire", surrounded by ruined masonry buildings, hieroglyphic texts of astronomical calculations on accurately dated monuments. He would pass through the less advanced but very much alive Aztec "empire", itself founded on an earlier dead culture. Eventually he would come to the pueblos of our own Southwest (which still flourish) where the economic basis is still agriculture, but the life and knowledge much simpler. Striking northeast he would pass through many tribes who cultivated corn, perhaps built mounds, but who did a great deal of hunting and fishing for a livelihood. Passing beyond the Great Lakes to Labrador he would find the Indians there depending on hunting, fishing and gathering natural wild food plants, without any farming whatever.

It is perfectly plain that the Americas were first peopled by tribes without agriculture - "savages". That somewhere in the central area agriculture was invented and then spread out. That within the agricultural areas simple peasant life developed more complex social forms until finally, long before Columbus, there were several peaks of culture were so high as to merit the term civilizations, comparable with ancient Egypt and Mesopotamia.

The fundamental ~~aims~~ aims of American Archeology as we see it are to first unearth and report the materials for, and then to write the history of the original peopling of the Americas by hunting tribes of low culture and to tell how and why the various civilizations grew up from this base. In some cases the arc is complete and we should be able to follow the collapse of civilizations (notably the Maya) without European influence. The importance of such a story when it is worked out will be the same as that of old world history on modern thinking, with this added element. It is practically certain that no important influences, above a paleolithic or neolithic level, came from the old the the new world. When we know the stories of both we will be in a position to compare and perhaps be able to determine some features which are accidental and others which are fundamentally human and universal.

All that is a big order not likely to filled for a century or two, but archeological (and ethnological) projects should be designed to add, each a little, to the final big picture.

This museum has during several years past been attacking the problem from both ends. Museum expeditions have been working on Eskimo (hunting) cultures in Alaska, and on pre-agricultural remains in the southwest. Our Mr. Edgar B. Howard has taken a leading part in definitely showing that man existed in America at the same times as extinct species of buffalo, sloth, mammoth, horse, etc. and is planning to follow this trail north to Alaska, and south through Mexico.

At the same time we have dug for three seasons, and hope to continue for many more, in the Maya Old Empire region, the scene of the highest pre-columbian American culture. The particular site chosen supplements and does not duplicate other work in the Maya area. We work hand in hand with the Carnegie Institution of Washington, the only other institution now carrying on important work there. Incidentally they are also working in the Southwest (as are others) but in cultures intermediate between the high Maya and the low hunters being investigated by Mr. Howard and several others.

The Maya area - southern Mexico, Yucatan, northern Guatemala, British Honduras and contiguous parts of Spanish Honduras - falls into a number of sub-areas distinguishable by surface observation alone. The Carnegie excavations are confined to two of these - the "New Empire" of northern Yucatan and the heart of the "Old Empire" in the Department of Peten, Guatemala. We have chosen one of the three principal cities of a distinct sub-area - the basin of the Usumacinta river, in which there has been no prior excavation, though plenty of surface study to show its prime importance.

Our plan is to more or less completely excavate this one Maya city. We know from its monuments that it flourished for at least three hundred years, and collapsed with the general decay of all the other Old Empire cities. Its art was of the very finest so that we have a starting point at the very top of the cultura scale. When we get through we will have a sample chapter covering the final period when "progress" reached its peak with stone-and-mortar buildings, stone, stucco and painted art of first order, astronomy was the then most accurate in the world, writing was beginning to become phonetic, and so on. We may have some idea of why it all collapsed, and we should have reliable clues as to where to look for the roots of all this exuberance.

To be a little more ppecific, in the past three seasons we have indentified a good many building types, pottery types, burial types, evidence of certain customs and so on. The task is to go on and get all the varieties of everything which leaves its

mark in the dirt, and to arrange them in chronological series. When that is done, and only then, is sound interpretation possible. For the chronology our opportunity is unique, for here at Piedras Negras is the longest series of carved dated monuments (erected regularly, every five years) plus the convenient Maya custom of forever burying old buildings with bigger and better ones which, of course, are later.

We have to date completely excavated seven surface temples (all on pyramids) and one each of two types of supposed palaces; We have trenched for cross-sections five pyramid temples and nine ~~palaces~~ palaces; have completely dug what seems to be a miniature type of temple (possibly early) and trenched two others. One section of a residential structure has been completely cleared. Deep cuts have shown thus far five, four, three and two superimposed periods of building. Two ball courts have been cleared, of which the certainly later is very different from the earlier. We can attach specific dates to a considerable number of these buildings, apart from relative dating of superimposed structures (and their contents - pottery, jade and other jewelry, etc.). We think we have about proved the approximate date when wooden roofs gave way to masonry vaulted roofs, but this needs to be confirmed by further tests. Ten burials have been found and carefully cleared and recorded. They fall into no less than six distinct types.

During the first two seasons the program included export of sixteen of the large monuments, one half to Guatemala and the other half here on loan. That was to preserve the best of Maya sculpture from destruction. The site is in the heart of the jungle where government protection cannot be had. That policy is discontinued for the present at least, because it is so expensive and because the end has been largely accomplished.

It is impossible in a few words to say how important the results thus far have been, and as a matter of fact, their final importance depends largely on having a complete story into which to fit each part. We feel that results have been more satisfactory from the scientific viewpoint than was hoped, and we hoped a great deal. From the point of view of sculptured art in itself, the worth of the contribution is unquestioned. We have saved some of the finest pieces from destruction and have ourselves discovered several previously unknown, among them the very finest (Lintel 3).