



first of three phases of the final period the pyramid was extended  
the basal terraces was likewise extended,  
to front and rear, but not at the sides, and ~~it was~~ and new stairways  
provided for it and the pyramid. A building platform was placed on the  
remodeled pyramid, and a stone temple on this. All but vestiges of the  
latter had been removed. In the second and third phases the building  
platform was modified twice, and a ~~sk~~ new masonry ~~temple~~ of Peten style  
roof and probably roof-comb was built and remodeled once; elaborate  
stucco masks were placed ~~beside~~ on each side of the pyramid stairway, probably on all  
four terraces, and Stelae 39 and 38, dated by Morley at 9.12.5.0.0  
and 9.12.10.0.0 were erected on secondary platforms built ~~against~~  
the basal platform and on its stairway. The 9.12.5.0.0 Initial Series  
is well preserved. The stelae were certainly erected in the second or  
third phase, or form a still later phase.

In all three periods smoke-blackened column altars stood on  
the pyramid top, as well as in the building.

The whole complex post-dates remains of a Peten-style platform  
at one side, and both of these rest ~~above~~ in part earth containing flanged-bowl  
potsherds, which lies on an earlier occupation level. A few negative-  
painted sherds were found in the hearting of the earliest Str. K-5 ~~marked~~  
~~pyramid~~ building and building platform but were absent in the earlier flanged-  
bowl deposit.

Preliminary deductions are that the early large rectangular temple  
dates well after Peten-style architecture, at least as applied to  
substructures, had made its appearance, and during or after a flanged  
bowl ceramic period; mask decoration of pyramids seems to be a late  
feature in the local absorption of Peten style architecture, which  
extended over a considerable time; the final vaulted temple, although  
one of the more massive at the site, ~~probably~~ almost surely  
and was erected in 9.12.5.0.0, tending to confirm the theory that

region  
vaulting did not appear in the Usumacinta/before the middle of  
famous Piedras Negras  
cycle 9; the/so-called lintels were probably placed as vertical panels  
in or on building platform stairways, a logical placement for detailed  
small-scale carvings; important ceremonies took place on the stage at  
the top of the pyramid, before the temple, as in Mexico, as well  
as within it; negative painted pottery seems to have appeared before  
9.12.5.0.0, probably well before the middle of the cycle.

Architectural features were worked out in numerous other mounds,  
but space limits forbid their summary extect to state that three  
pyramid have rounded corners without the usual Peten style outsets.  
Test-pits were sunk in the east and south groups to test the possibility  
that ceramic types predating those of the flanged-bowl period had  
previously been missed; our preliminary opinion is that no evidence  
for an earlier style was encountered, though it must be admitted the  
quantity of sherds was disappointing in most pits. Accordingly we  
still postulate that the earliest architectural activity, known to  
predate the corved monuments which began about 9.5.0.0.0, was within  
the flanged bowl period. Some sculptured fragments were recovered,  
but no datable texts.

REPORT OF PIEDRAS NEGRAS EXPEDITION, May 26, 1939

(Data mainly from letter of Linton Satterthwaite of May 10)

The work of Mr. Satterthwaite has been mainly centered in ascertaining the details of the pyramid and terraces of pyramid K-5. This is one of the largest and most prominently situated of the pyramids at the city. It was one of the first structures investigated by Dr. Mason in 1931-32 and further work upon it was done by Mr. Satterthwaite in one of the subsequent years.

The drawing enclosed by Mr. Satterthwaite gives an idea of the amount of work done, the beauty of the temple-crowned pyramid, and the careful excavation and investigation, for the entire mass is completely destroyed and the reconstruction made as a result of traces uncovered here and there by meticulous work and careful observation.

When first seen in ~~1939~~ 1930 this was nothing but a forest-covered mound with a trace of a wall projecting on the apex. Dr. Mason cleared the upper temple and, digging in the center, found the floors of two other earlier temples which had been built over. The earliest of these, K-5-3d, had masonry walls but a roof of perishable material and the largest room known in the Maya area; the middle one, K-5-2d, seemed to have had no walls, or walls of perishable materials. The upper and latest temple was a typical masonry one with the vaulted roof. At the front, a broken sculptured stone was found which was, at that time, supposed to have been a lintel covering the main entrance. At the foot of the pyramid lay two fallen and eroded stelae.

Mr. Satterthwaite's investigations have cleared up many of the uncertain points regarding architecture and revealed many of the details which fit the architecture into its proper place in Maya history. Practically all the details shown in his sketch are the results of his

ful excavations. He ascertained that the middle period, K-5-2d, did not have a pyramid slope and terraces of its own which had been covered over, as originally suspected, but that the terraces and walls of this middle period were also used for the last period, with the addition of the masonry temple on the top, and staircase and stucco masks at the front. The lowest structure, K-5-3d, had a separate pyramid which is deeply covered over and which Mr. Satterthwaite was, at last reports, uncovering.

The sculptured broken stone ~~was~~ he has proved to be not a lintel, as at first suspected, by finding the spot at the front where it had been placed as a vertical tablet. The circumstances of the finding of the fragments of this sculptured stone, some more pieces of which he uncovered, ~~again~~ indicate that it was intentionally destroyed at the close of the city's occupation. This is the first proved indication of intentional destruction found on a temple, and corroborates the evidence of vandalized thrones in other places in the city to the effect that the latter met a violent end.

One of the most important scientific results of his work has been the ~~typing~~-up of the apical vaulted temple with the dated stela at the base, and therefore the chronological dating of the temple and the objects found therein. His researches have determined that the temple is a little older than the date on the stela at the front. This affords a remarkable verification of his earlier-proposed theory. As a result of his many other excavations he had come to the conclusion that the Maya vault was not developed at Piedras Negras but had been introduced from the Peten region at a relatively late date in the city's history, and that the earliest masonry vaulting was, as would be expected, characterized by thick walls and narrow rooms. The date that he had suggested for the introduction of the vault was 45 years ~~after~~

more the date of the stela at the base of pyramid K-5. The fact that the vaulted temple K-5-1st predates the stela at its base, and, judging by its thickness of wall and narrowness of room, is one of the earliest vaulted structures in the city, corroborates ~~his~~ in a remarkable way Mr. Satterthwaite's estimate of the date for the introduction of the masonry vault at the city.

Beneath the stela a cache of ceremonial objects was found which can also be accurately dated from the date on the monument and a criterion therefore established for the date of these types of objects.

In addition to this work Mr. Satterthwaite has also worked out two of the five pyramid types which were heretofore unknown or uncertain. Probably by this time he has finished his determination of the details of the buried pyramid K-5-3d and gone to other work on his agenda in other parts of the city.

Prepared by Mason & read at Saturday Museum lecture /  
on Results of Museum Expeditions, March, 1939

① Map  
② Monuments  
Mr. Linton Satterthwaite and his party left on February 17th for Piedras Negras for the eighth and presumably last season of work at this city of the Maya Early Empire in Guatemala. As he is probably only just getting to work, since no expedition was sent last year, and as the results of the expedition of 1937 were reported upon, it might be well to recapitulate here the main scientific results of these seven expeditions, the first two under my charge, the last five under that of Mr. Satterthwaite.

③ R-3  
The more spectacular work of getting out the massive monuments in the first two years has more or less overshadowed the important scientific results of Mr. Satterthwaite's slow, careful work of uncovering the architectural remains. This has added tremendously to our knowledge of the origin and development of Maya civilization and architecture in the first millennium of the Christian Era. While these cities are generally spoken of as "buried", this is not in the same sense as those in the Near East, for the accumulation of soil above them is slight. Rather have they been demolished by the effect of the tropical rains and the great trees of the forest. The work is therefore slow and careful rather than on a large scale.

④ Plan  
⑤ Excavations  
The Museum's work at Piedras Negras has been one of the most extensive excavations in the Early Maya region, exceeded only by the twelve years of excavation by the Carnegie Institution at Uaxactun. When the work was begun in 1931, the concepts regarding Maya cities were very different from the present picture. The ceremonial centers for that is all that these "cities" were, surrounded by the perishable habitations of the people, now entirely gone - were supposed to consist solely of small "temples" built on pyramids and larger "palaces" on platforms, the latter presumed to be the dwelling-places of priests or nobles. Ball-courts, formerly considered to have been a late introduction, had recently been found in these older Maya cities. Carved monuments were presumed to be universal accompaniments of the

25

masonry buildings.

The excavations at Piedras Negras have played a large, if not the largest, part in changing this picture. In its earliest days, near the beginning of the Christian Era, the city had a totally different aspect. Both temples and palaces were on low platforms, and there were apparently no pyramids. Masonry may have been entirely unknown, and was certainly limited to platforms and walls. The typical Maya vault or arch which supported the massive masonry roofs was a late introduction and developed elsewhere; earlier roofs were of thatch on beams, as in the typical house in this region today, or of a concrete resting on flat beams, thus permitting rooms of considerable width. The walls were of plastered posts and wattle, or of masonry. There were no carved and dated stone stelae, though stone monuments may have been painted. Strange to say, all these architectural styles persisted until the abandonment of the city, and in the latest period massive buildings were vaulted ceilings and roofs adjoined buildings with beam-and-mortar or thatched roofs. Edifices of all types are found both with and without masonry vaults.

The development in masonry technique is illustrated by the fact that given buildings of the same plan, the earlier ones had narrower rooms or thicker walls, or both, while the later ones had thinner walls and wider rooms. Mr. Satterthwaite was able to arrange his edifices in a table according to their indices of the relation of wall-thickness to room-width, and found that his results, on a chronological scale, tied up very well with the temporal proof afforded by superposition and correlation with dated monuments.

The large buildings known as "palaces" were never built upon pyramids. Seventeen were positively identified, and there may be twenty more. Of these seventeen, seven were practically entirely excavated and ground plans were made of the other ten. The former belief that they served as residences can no longer be held; the rooms are narrow, dark, often damp, far from kitchens, and show-

ed no evidences of culinary fires. Moreover many of them contain thrones on and around which ceremonies were performed; thirteen thrones were found in seven palaces.

⑩ Thron

The throne is an element of early Maya culture, previously unrecognized, which the Piedras Negras expeditions have added to the total. First noted portrayed on beautiful Lintel 3, a complete carved throne, the only one of its type known, <sup>shown in the last slide,</sup> was soon afterward discovered. Later, many other thrones were found, ranging from those of tooled stone, resting on stone legs, to others of plastered masonry.

⑪ Temple

Later temples were always erected on pyramids, and eleven such were partly or entirely excavated. From these Mr. Satterthwaite developed several criteria for the identification of temples; a small columnar or cylindrical altar, a rear sill or long step, and a special order of the rooms. On this basis he identified three other earlier temples on low platforms, and another directly on the plaza. Half of the temples had non-vaulted roofs, including all temples not on pyramids.

⑫ K 5

Temples were therefore not, as originally thought, placed on pyramids for purposes of elevation. The pyramid developed from the Maya custom of frequent rebuilding and enlargement. The original low temple was unroofed, the rooms filled up and covered over, and on the resulting mound a larger temple was built. In one such pyramid two buried temples were found in addition to the one on the apex; the lowest one was unvaulted and consisted of the largest single room known in the Maya region, sixty by sixteen and one half feet. <sup>shown in the slide</sup> The further examination of this unusual temple and of the low pyramid on which it stood is one of Mr. Satterthwaite's primary projects for this year; it is altogether likely that he will find a fourth and earliest temple under this, resting on a low platform.

⑬ Ballcourt

Two ball-courts where a ceremonial game was played exist at the city. These are of different types. One, with sloping walls and terrace, is

14 Ballcourt

that characteristic of the Old Empire region; the other, with vertical walls and flat terrace, is later, and a new type for this region and period. The question of ball-courts is a very important one culturally. Courts of very similar type were made by the Aztecs and presumably by the Toltecs of the Mexican highlands, and by the later Maya in Yucatan, and courts in which a similar game was played were or are known in South America, the West Indies, and Arizona.

15 P-7

If one should be asked to indicate the most important discovery at Piedras Negras it would probably be that of an entirely new type of edifice, the sweat-bath. This was probably a highland influence. In later days a structure of this type was built at Chichen Itza, but they are unknown as yet elsewhere in the Maya region. The essential elements of this type of structure are: small, low-roofed interior room at the rear of which was a fireplace with a back-screen made of potsherds set in mortar. The only entrance was a small low door through which ran a depressed drain, for the surplus water. Generally the steam-room was surrounded by other larger rooms in which are sometimes found masonry thrones. Eight sweathouses were identified at Piedras Negras and there may be four more. The largest one, fortunately, was the best preserved building at the city, with a high ceiling and an unusual roof, a combination of stone-vault and beam and concrete. The outer rooms were unusually large, nearly twelve feet in width.

16 P-7  
excavation

Although no fine vessels have to date been found, the pottery has been carefully studied, and six ceramic periods have been determined; the earliest of these correlates with the third period at the site of Uaxactun, proving, as suspected, that this and other cities of the central Peten region are older than Piedras Negras and the other cities of the Usumacinta River valley.

17 Stucco  
head

Apart from the magnificent monuments, the finest examples known of Maya sculpture, few outstanding art objects have to date been found. The stucco

18 Flint

ornamentation must have been exquisite and ornate, but very little of this has of course survived the fall of the buildings and the tropical rains of a thousand years. One burial of a personage of great importance was found, surrounded by ornaments of jade, shell, pyrite and other semi-precious stones, among them the largest known mirror of pyrite mosaic. Fifteen of his teeth were inset with jade and pyrite. In the ceremonial caches found in quantities beneath the floors of certain temples and beneath the monuments are other such objects, and especially many ceremonial figures chipped of flint in strange and artistic shapes.

19 Lintel

The smaller rectangular carved stones have always been considered as, and termed, lintels, and presumed to have been placed over doorways. Mr. Satterthwaite has amply demonstrated that these could not have had such use, but were presumably panels set vertically in blocks of masonry. The finest of these is, of course, the famous Lintel 3, of which Miss M. Louis Baker has made such a careful reconstruction.

20 Restriction

The reason for the abandonment of all the cities of the Early Maya Empire has ever been a cause for argument among Maya specialists, most of whom have proposed theories with an economic basis. Our researches have shown that, at Piedras Negras at least, the city met a violent end, at which time the large ceremonial edifices were abandoned and not thereafter occupied. A civil war or proletarian uprising offers the most probable solution.