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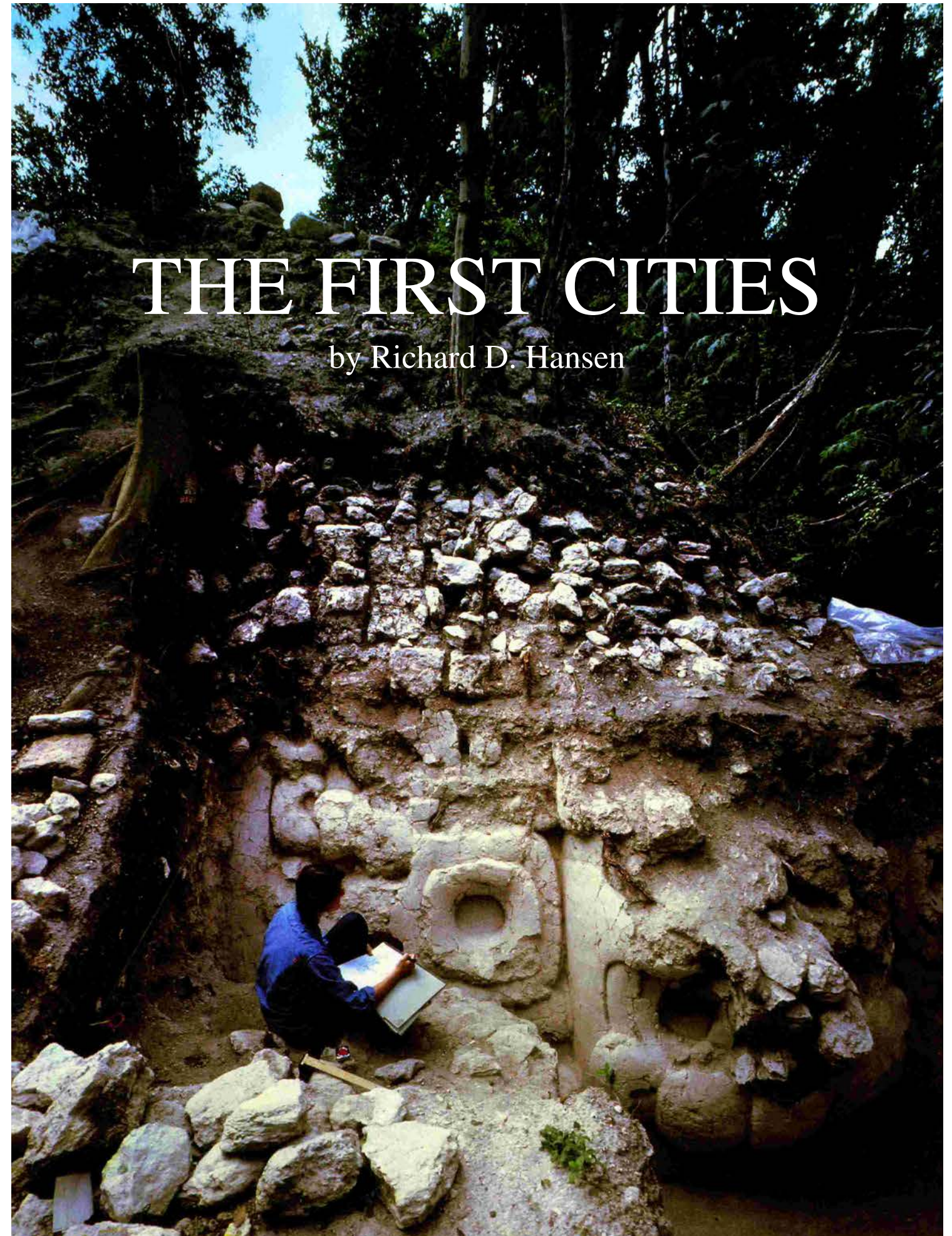
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MAYA

DIVINE KINGS OF THE RAIN FOREST

Edited by Nikolai Grube
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THE FIRST CITIES

by Richard D. Hansen

THE FIRST CITIES – THE BEGINNINGS OF URBANIZATION AND STATE FORMATION IN THE MAYA LOWLANDS

Richard D. Hansen

For a long time, there was no evidence of Preclassic occupation of the Maya region, and it was therefore assumed that the roots of Maya culture must lie outside the Lowlands. Researchers' interest turned to the climatically favorable Highlands of Central America and the Gulf Coast, the former home of the Olmec. Until just a few decades ago, scholars believed the Olmec to have been the "mother culture" of all Mesoamerican civilization, including the Maya.

The first excavations in Guatemalan Uaxactun in the 1920s revealed an archeological sensation: early traces of the Maya, which were at first classified as unusual and "primitive." However, research carried out in the 1960s and 1970s in Tikal by the University of Pennsylvania, and Norman Hammond's excavations in Cuello (see Hammond, pp. 38), confirmed that the Maya Lowlands had already been occupied and architecturally developed in the first millennium B.C. Later excavations at sites close by, such as Colha and Cahal Pech, confirmed that the Maya had indeed settled along riverbanks, trade routes, and fertile plains. Subsequent research in the Lowlands confirmed the presence of Preclassic constructions in Tikal, Altar de Sacrificios and La Lagunita, Rio Azul, the Yaxha-Sacnab region, Komchen, Dzibilchaltun, Yaxuna, Nohoch Ek, Colha, Cuello, Cahal Pech, and Blackman Eddy (ill. 59).

The Maya Lowlands provide a fascinating case study of a special kind of development of human society. The formation of a complex society in a tropical rainforest with relatively few rivers was fundamentally different from the more common socio-political and economic complexity of riverine societies in temperate arid or semi-arid regions, such as Egypt, Mesopotamia, the Indus valley, China and highland Mesoamerica.

The Mirador Basin

The Mirador Basin is a circumscribed, geographically-defined basin in remote northern Guatemala and southern Campeche (Mexico) with a large Maya occupation pre-dating most ancient cities in the Maya Lowlands of Mesoamerica. These settlements date to the Middle Preclassic (1000-350 B.C.) and Late Preclassic (350 B.C.–150 A.D.) periods with a more modest settlement during the Late Classic period (600–800 A.D.).

Early Preclassic development in the Mirador Basin is evident from the abundance of massive architectural assemblages ranging from 40 meters (131 ft.) to 72 meters (236 ft.) high. These buildings were connected by an intricate system of causeways, known as *sakbe*, which ran through individual sites as well as between them, and which joined the sites of El Mirador to Nakbe and Tintal, and possibly joined Wakna, Uxul, and Calakmul to the Mirador/Nakbe area. Similar causeways also linked Tintal to several unnamed sites to the south and east of the region.

59 The main Preclassic sites in the Maya region

Nothing was known of the existence of Preclassic settlements in the Maya region until just a few decades ago. However, intensive archeological excavations in numerous Highland and Lowland sites revealed evidence of Preclassic settlement in both. Northern Guatemala and Belize both contain particularly large numbers of

Preclassic sites, where seasonal marshes provided the means for intensive agriculture. It is also possible, though, that the map gives an incorrect picture of the distribution of Preclassic sites, since remains from Preclassic settlements could still remain concealed beneath subsequent structures built over them.



58 Excavation of the stucco mask of Structure 34. El Mirador, Peten, Guatemala. Structure 34 dates to the Late Preclassic. It is a small platform to the south-east of the vast El Tigre pyramid, and is one of the most extensively researched structures at El Mirador. The stairway to the platform is stucco-covered, and flanked by two greater than life-sized

masks that are so characteristic of this era. The mask is of a god with a long nose and huge eyes. The head is framed by two large ear spools with jaguar claws springing from them. The whole mask was formerly painted, and the colors and size must have had quite a dramatic impact on the visitor.

the northern Yucatan coast of Cerros, Isla Cancun, Edzna, Santa Rosa Xtampak, and countless other places. Even though we do not yet know the reasons for this decline, they were undoubtedly manifold, and of a military nature. However, ecological and cultural factors would also have played a role.

The Protoclassic period in the Mirador Basin – life in the ruins of former splendor

During the brief span of time between 150 and c. 250 A.D., known as the Protoclassic period, which many researchers refer to as the end of the Preclassic, there appears to have been a dramatic decline in population in much of the Lowland Maya region, manifested by an interruption in building and other activities. Distinctive ceramic traits begin to appear during this time. For example, the waxy slips on ceramics (particularly the monochrome red, black, and cream pieces) from the Late Preclassic period became far more dull and prone to flaking. Trickle-painted and incised vessels imitated the "Usulután" style of the eastern Highlands, which made distinctive use of orange slips painted with red and black stripes. For the first time, orange-colored clay was used as well as geometric polychrome designs. A variety of new forms were introduced, including vessels having rims, a slight "hook" on the upper surface of the rim or bowl, and four round and therefore "mammiform" (breast-shaped) feet.

Obsidian imports dropped off dramatically from the brisk trade in the Late Preclassic period, and large-scale architectural programs ceased. The major sites of the Mirador Basin seem to have been completely abandoned by the beginning of the Early Classic period (250–550 A.D.) apart from a small number of people who remained in El Mirador and a number of complexes in Nakbe and Zacatal. All extensive building work had stopped, and goods were no longer imported into the Mirador Basin. Settlements were now far more widely scattered, and tropical forest seems to have grown back over the large sites.

By the Late Classic period (550–800 A.D.), small settlements were dispersed among the ruins of the great ancient centers throughout the Mirador Basin. Residential complexes were built haphazardly, though close to the old centers,

often made of stone and other materials taken from Preclassic ruins. Late Classic constructions were frequently placed directly on elevated Preclassic platforms and causeways, apparently with little regard for the original function of the constructions. There appears to have been little interaction between the different settlements during this period, since construction patterns, pottery types, tomb architecture, and burial offerings seem to vary widely within an area, or even within a site. The relatively small buildings of this time were apparently carefully decorated with painted lime plaster, murals, stucco decorations, cantilever or corbel vaults, and elaborate tombs. Murals were painted on the walls of several small constructions at Nakbe and El Mirador. Elaborate stucco sculptures of human and mythological beings are to be seen on the façades and attic stories of small and medium-sized structures. Exotic trading commodities of shell, obsidian, jade, and granite were imported to the Mirador Basin. Although evidence indicates that areas with a high population density in the Late Classic were not occupied in the Preclassic, one exception was the large site of Naachtun in the north-east of the Mirador Basin, which probably was of importance in the Preclassic and where numerous Late Classic stelae and large buildings were constructed.

Some of the most artistically important ceramics of the Late Classic were manufactured in the Mirador Basin at sites located among ancient Preclassic settlements. The style of these pottery vessels, painted in fine black line on a cream background and consisting of a wide range of forms, are known as "Codex-style," because of their supposed resemblance to and source in now nonexistent ancient codices. The scenes depicted on the vessels portray many vivid details of Maya mythology, architecture, weapons, ceramics, animals, deities, daily life activities, and hieroglyphic texts. Codex-style pottery has been found at Nakbe, El Mirador, Zacatal, La Muerta, la Muralla, and reportedly at Porvenir, each with variant chemical compositions (ill. 88). An important elite tomb in Structure 2 at Calakmul was recovered with a codex-style vessel that had the same artistic hand and the same chemical composition as the pottery from the Codex Group at Nakbe. Codex-style pottery has been actively sought by looters and collectors, resulting in the devastation of scores of Maya sites in the Mirador Basin. Many of the finest Codex-style vessels are now found in private collections throughout the world.



87 Ceramics from a looted burial. Wakna, Peten, Guatemala; Late Preclassic; fired clay. Archeologists found a looted burial in the Wakna site, south of Nakbe, in an arched tomb. The thieves were not interested in these unpainted ceramics. The monochrome black and red engobes, tapering sides, and a protruding edge on the bottom are characteristic of bowls in the Late Preclassic Chicanel style.

88 Cylindrical vessel in the Codex style. Nakbe, Peten, Guatemala; Late Classic, c. 600–900 A.D.; fired clay, painted; H. 19.5 cm, dia. 12.8 cm. Once the entire Mirador Basin had largely been abandoned in the Early Classic period, it was again occupied in the Late Classic and became an important center for the manufacture of ceramics with black painting on a cream base which resembled that of the Maya Codices. The scene on this fragment shows a god of writing with an open book in his hands.



85 Stela 2, El Mirador, Guatemala; Late Preclassic. We still do not know whether the Maya script was created in the Highlands of Guatemala or in the Lowlands of Peten. However, the finely carved hieroglyphs on Stela 2 at El Mirador prove that writing

was being used in the Mirador Basin in the Late Preclassic. Even though the text has not yet been fully deciphered, some symbols do indicate that it tells of events in the life of a prince.

The enigmatic abandonment of Preclassic cities

The earliest cities of the Lowlands were apparently subjected to some sort of military stress in the midst of prosperity, intellectual accomplishment, and major artistic and architectural developments. Excavations by archeologists E. Wyllys Andrews IV (Tulane University, New Orleans) and David Webster (University of Pennsylvania) between 1969 and 1971 at Becan identified a Late Preclassic construction for a large moat that encircled the site (see Hohmann-Vogrin, p. 208). A similar canal/moat construction surrounded the center of Cerros. A moat-encircled “fortress” was also located at Edzna, and there was also a defensive installation at El Mirador.

While several large sites in the Lowlands prepared defensive systems, we have not yet adequately determined the perceived threat or threats that necessitated the construction of such massive fortifications. Even in Highland centers, such as Chiapa de Corzo, there is evidence of burning and destruction in the transition period from the Late Preclassic/Protoclassic period (350 B.C.–250 A.D.) and the Early Classic (250–550 A.D.). The fact that the Preclassic sites in Chiapas were relocated to more defensible sites correlates well with Lowland Maya strategies. Excavations on the summit of Tigre pyramid at El Mirador revealed numerous chert and obsidian projectile points and prism-shaped blades. The obsidian was obtained from various Mexican sources, indicating a battle in the Early Classic period (possibly 3rd or 4th century A.D.) when there was contact with Central Mexico.

One of the most remarkable discoveries at the first Maya centers is the near-total abandonment of the sites at the close of the Late Preclassic period. Residential and ritual structures were abandoned, leaving whole *chicanel* vessels (ill. 87) and stone objects directly on the plaster floors. The demise of major centers in the Mirador Basin at the end of the Late Preclassic period (c. 150–250 A.D.) occurred at numerous sites in the Lowlands, including Tikal, Uaxactun, Seibal, Cerros, Colha, Becan, the central Yucatan area, Dzibilchaltun, Komchen,

86 Stela 1, El Chiquero, Peten, Guatemala; Late Preclassic, c. 0–250 A.D.; limestone; H. 50 cm. Small stelae were chiseled at the end of the Late Preclassic, depicting figures and areas with hieroglyphic texts. Only the lower part of Stela 1 of El Chiquero still

exists; the whole monument would not have been more than one meter high. The fragment shows a pair of legs in a dynamic pose, and a rectangular area that probably contained hieroglyphs.



First settlements at the beginning of the Middle Preclassic

The developmental sequence for Preclassic architecture has been particularly evident in the Mirador Basin at the site of Nakbe (ill. 60). Stratigraphic studies and analyses of the few ceramics found from this period, together with information obtained from carbon dating the oldest layers, suggest that the earliest occupation began between 1000 and 800 B.C. As in Cuello, the architecture of this time consisted of wattle-and-daub residences, packed clay floors, external stone retaining walls, and post holes carved in bedrock (ills. 61, 62). Evidence of such settlements has been located in primary deposits below the platform constructions in the East Group at Nakbe.

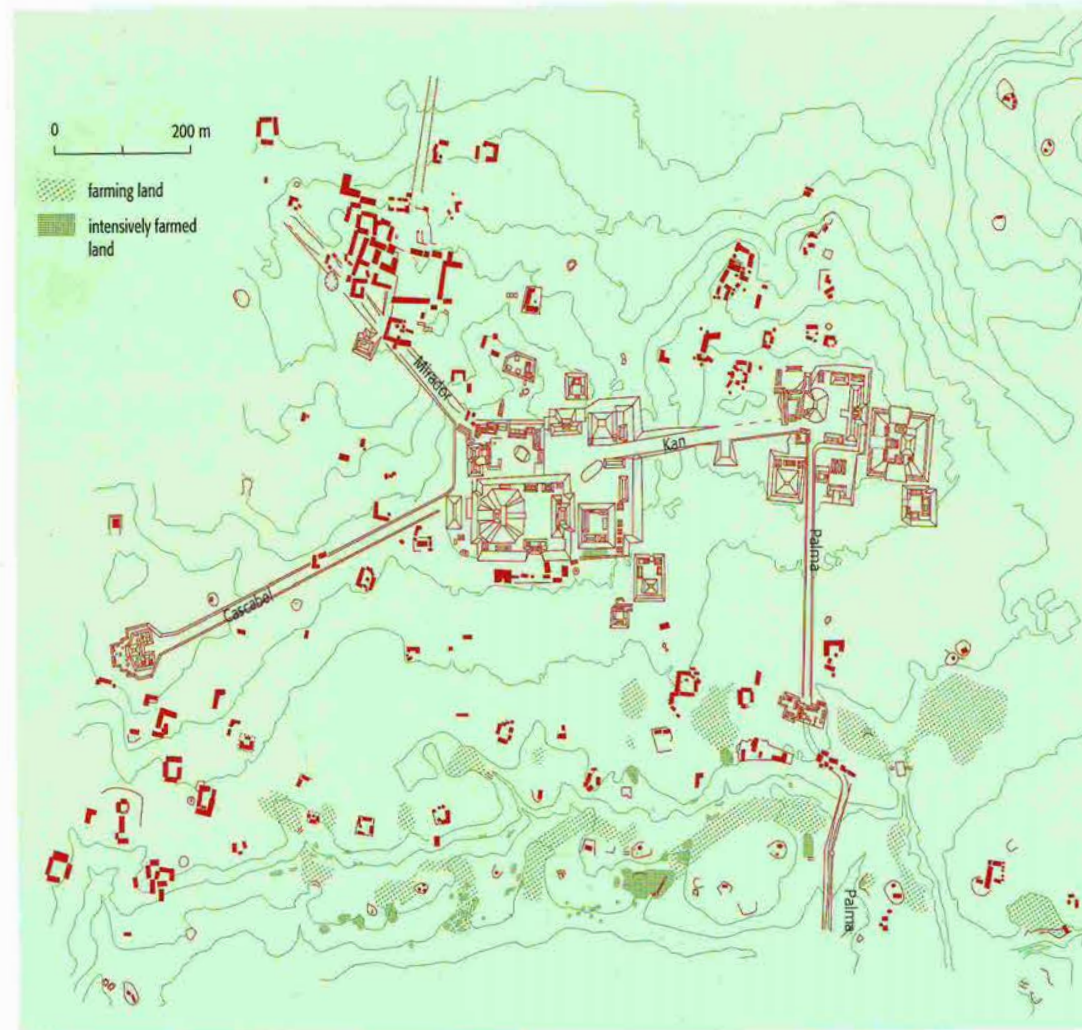
The construction of formal stone platforms appeared slightly later, about 800 to 600 B.C. These platforms consisted of vertical walls, two to three meters (seven to ten feet) in height, and composed of roughly hewn flat stones (ill. 65). The walls were covered with a primitive lime and clay mortar or a chalky plaster, while floors consisted primarily of packed clay, limestone marl, *saskab*, or thin lime plaster. Platforms with floors such as these have been located in both the East and West Groups at Nakbe, and represent the first major architectural complexes of any size in the site.

Specialist production of figurines occurred within localized areas. Neutron activation of the Nakbe figurines by Ron Bishop at the Smithsonian Institution, Washington and subsequent comparison with the chemical composition of Uaxactun Middle Preclassic figurines revealed that, despite the close similarity

in form, shape, and decoration, the vast majority of each group of figurines was manufactured at its particular site. It should be noted, however, that three figurines which had been made at Nakbe appeared in the Uaxactun collections, suggesting that an exchange had taken place during this early time.

The ceramics that were studied by Donald Forsyth from Brigham Young University between 1978 and 1989 show a remarkable variety in form and surface treatment. They include a variety of monochromes, dichromes, bichromes, incising, chamfering, resist decoration, paint, and painted stucco on vessels (ills. 63, 64). They are entirely consistent with Middle Preclassic ceramics from all over the Maya Lowlands during this early period of time, suggesting that there was extensive communication among the sites.

The early Middle Preclassic period at Nakbe, Uaxactun, Tikal, Colha, Cahal Pech, and the Pasion region is notable for the presence of a variety of shell artifacts. One of the most common types consists of large numbers of drilled conch (*Strombus*) shells (*costatus* and *pugilis*) from the Caribbean. These shell fragments (ill. 66) have a single drilled (often biconical) perforation and were cut in square or rectangular pieces but otherwise unworked. The spines and natural projections of the shells were left intact. Their unique presence in early Middle Preclassic ritual and elite deposits suggests that they may have served as indicators of political or economic status. It is significant that these diagnostic *Strombus* shells do not appear in any of the extensive Late Preclassic period contexts in the Mirador Basin or elsewhere, suggesting that the shell's function may have been specialized and may be useful as a period marker.



60 Map of the center of Nakbe, Guatemala. The large Preclassic city of Nakbe is situated in a densely forested region in northern Guatemala which is difficult to reach. Although it was first discovered from aerial photographs in 1930, it was not visited until 1962, when the Scottish archeologist Ian Graham traveled there and took cartographic measurements. The center of the city is indicated by two massive platforms. The eastern platform is 32 meters high; the western one, at 45 meters, is one of the largest acropolis buildings of the Maya. The various architectural groups are linked by causeways. A further causeway connects Nakbe with El Mitador, 13 km to the north. These causeways pass through seasonal marshes which facilitated intensive agriculture with several annual corn harvests.

ideas and relatively little individual expression. Sculptures in the Mirador Basin during the Late Preclassic period were much smaller than in previous or subsequent periods (ill. 86). This interesting paradox appears contrary to what happened when important rulers commissioned large and impressive stelae and altars on the occasion of important dynastic and historic moments. Monuments of reduced size (approximately one meter/ three feet high) began to display finely-incised hieroglyphic texts on small raised panels on sculptures (ill. 85). Writing also began to appear on small portable objects, suggesting that an increasing number of people may have mastered this script, if only passively. The cumulative effort expended in the Late Preclassic monumental architecture at El Mirador, Nakbe, Tintal, Wakna, and adjacent major sites such as Calakmul, combined with the intricate web of causeways that allowed social integration, and perhaps even political and economic unification, provide a strong argument for an incipient state formation in the Mirador Basin. While it is tempting to speculate at this point that a particular area may have been responsible for the rise to statehood in the Lowlands, there is no doubt that state-level construction activities, such as the Late Preclassic canals at Edzna, were being carried out simultaneously in several areas.



61 Excavations at the foot of Structure 51 in Nakbe, Guatemala. Excavations to the west of the base of Structure 51 in Nakbe (right) yielded extensive finds. The shaft (below right) shows the postholes drilled into the bare rock for a building made of perishable materials under a plaster corridor; this was dated to between 800 and 600 B.C. A large, flat altar (right edge of the picture) dates from the same period as the corridor. At the top is an intact platform wall dating back to the Middle Preclassic, and to the far left in the middle is Stela 1.



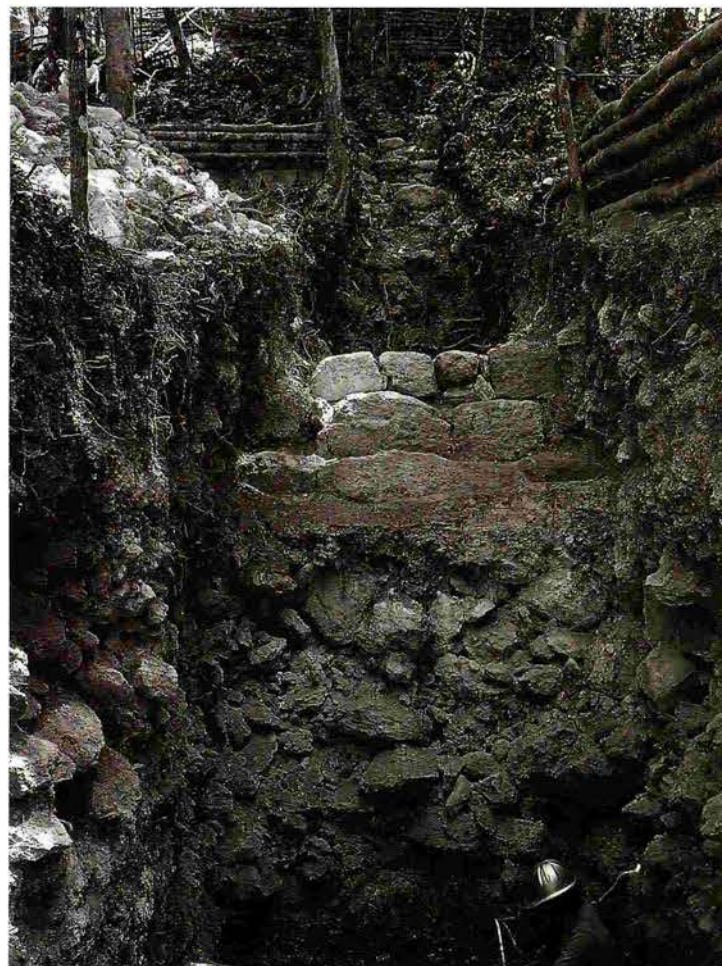
62 Middle Preclassic architecture. Nakbe, Guatemala; Middle Preclassic, c. 600 B.C. This vertical wall from the Middle Preclassic stands on a large plastered floor. Under the two corridor levels are the remains of an earlier Middle Preclassic building and a mound of waste from c. 800 B.C.



63 Early ceramic. Nakbe, Guatemala; Preclassic, 1000-800 B.C.; baked clay. Simple pressed decorations adorn this, the earliest engobe-free ceramic found in Nakbe. The item in question is a jug of the type "Resaca Impressed" from c. 1000-800 B.C.



64 Early ceramic. Nakbe, Guatemala; Preclassic, 1000-800 B.C.; baked clay. This fragment of a jug is from the period 1000-800 B.C.



65 Excavations at the foot of the stairs in Structure 51 in the East Group at Nakbe. The solid blocks of the stairs at the top of the excavation are clearly recognizable. The stairs and the platform were constructed at the same time. Large quantities of stone and rubble were spread over the remains of earlier settlements for the construction of the platform. A posthole in the ground close to the kneeling worker indicates the existence of an earlier building, made of wood and palm straw.

Population increase and social differentiation

During the Late Preclassic period, sites in the Mirador Basin and other Lowland centers reached their maximum size in density and quantity of both residential and public architectural constructions, obviously because of a drastic increase in population (ill. 84). Settlement densities were such that dwellings were even placed in the seasonal swamps surrounding the major centers. The economic and political prowess of the period also included the modification or construction of large causeways to provide direct transport and footpaths between principal towns and sites. The causeways ranged between 18 and 24 m (59 ft. and 79 ft.) in width, and from one to four meters (three to 13 feet) in height. These causeways, some of which are nearly 20 km (12 miles) long, represent some of the most monumental works in Mesoamerica and merit special consideration as a consolidating factor in incipient state formation in the Mirador Basin (see Eberl, pp. 232 ff.).

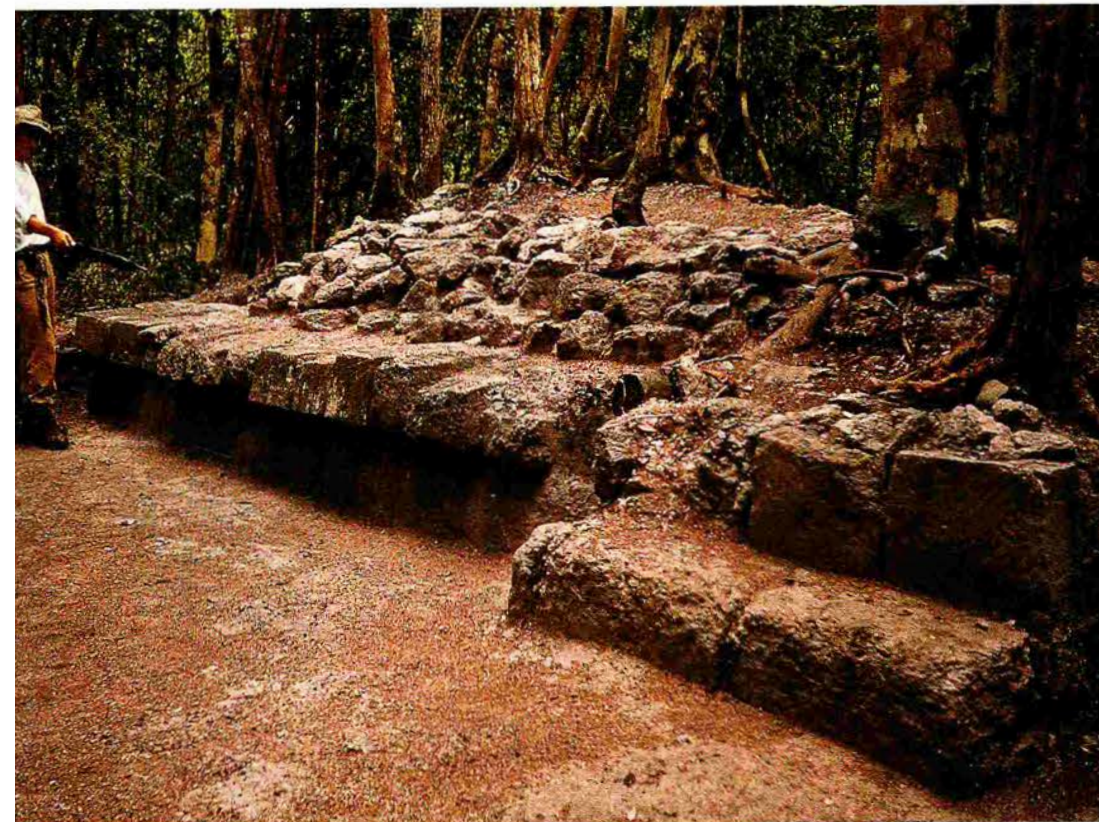
During the Late Preclassic period, the extensive use of agricultural terraces and the incorporation of imported swamp mud in civic gardens was maximized. Fields consisted of terraces laid out above and beside each other, their slopes made cultivable by protective walls, imported mud within natural clay terraces, and garden terraces adjacent to the architectural complexes. Agricultural intensification is suggested by the repeated application of layers of imported swamp mud, and the fortuitous discovery of an actual terrace system with preserved small hillocks and basins. The basins are identifiable by a thin layer of lime. The field surface was covered with artificially formed, slight, circular mounds and basins, each about 80 cm to 1 meter (2.5 to 3 ft.) in diameter that were intended to collect and guide rainwater. Investigations by Steven Bozarth of the University of Kansas of fossil plant remains showed that corn, gourds, palms, and unspecified fruit trees were grown.

The accrued agricultural wealth provided the revenue for increased spending on labor, exotic and hard-to-find imports, probably a professional

army, and an ambitious architectural construction program. Not least, this wealth also provided the basis for considerable social status, as suggested by the first appearance of elite royal tombs and burials, such as those at Wakna and Tikal.

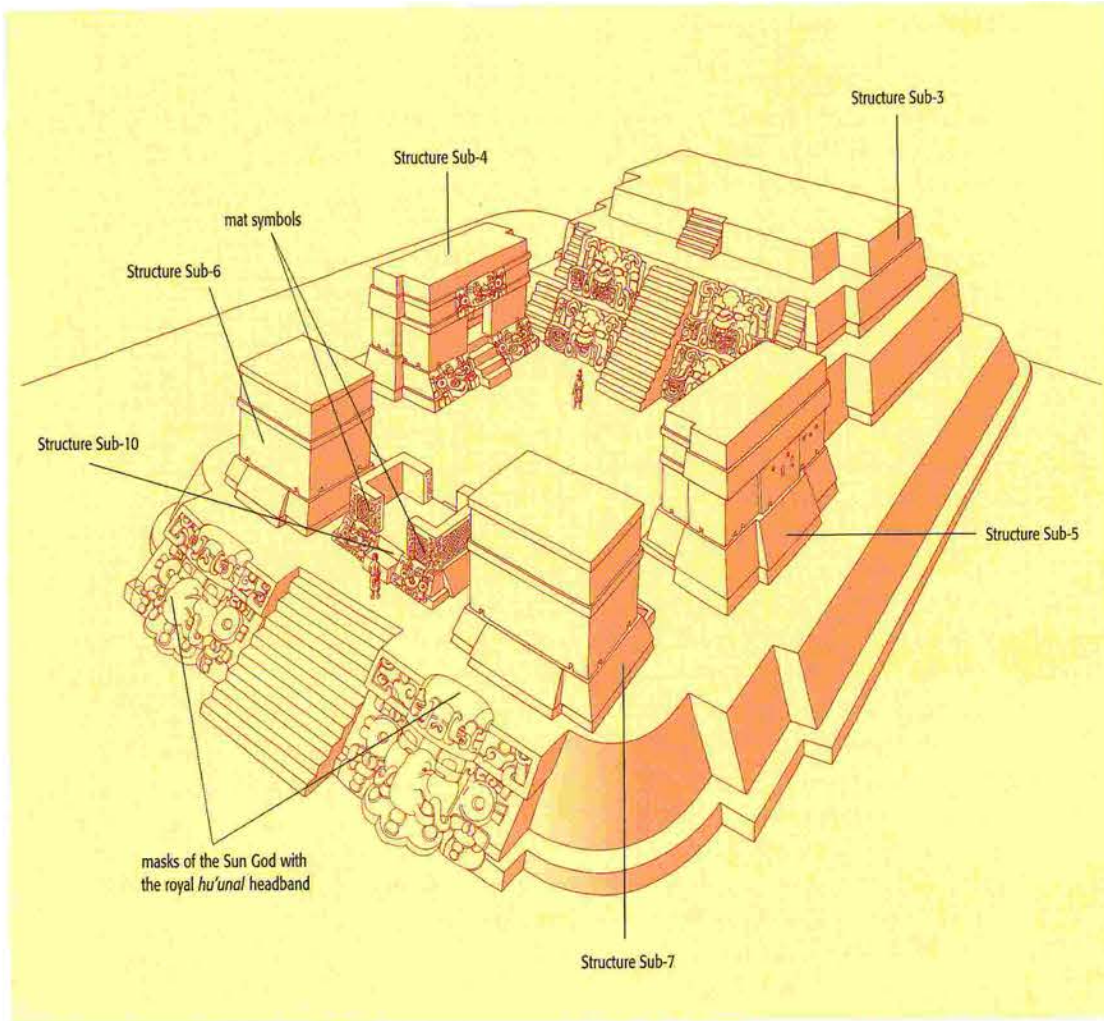
The best indicator of the level of social and political complexity of a society is its monumental architecture, not least because of the quantity of resources and labor that must be marshaled into the construction effort and which goes above and beyond those of basic subsistence requirements. Attendant components include socio-political and economic developments required for planning, constructing and maintaining massive architectural complexes such as these. For example, the El Tigre Complex at El Mirador (ills. 78, 79) required 428,680 cubic meters (468,976 cubic yards) of construction fill, representing as much as five million working days only to move the fill. Detailed research into the quarrying procedures and techniques used by the Preclassic Maya have demonstrated the human days/hours of labor expended in obtaining and finishing quarried stone. Investigations still in progress into the large-scale lime production systems in the Maya area have demonstrated the quantities and types of wood and limestone, production ratios, and the techniques and strategies of lime production in the Maya Lowlands. This research has confirmed that early specialized production systems existed in the Lowlands that were either non-existent or extremely reduced in other complex groups in Mesoamerica, and serves to indicate a production and technological sofistry of early state-level development.

The Late Preclassic period is also characterized by the remarkable homogeneity of its pottery. These ceramics, known as *chicanel*, were widely produced throughout the Lowlands with engobe, waxy-textured slips in red, black, or cream the preferred surface treatment. The consistency of the ceramic slips and forms, which extended even to domestic utilitarian vessels over the whole of the Maya Lowlands, suggests a uniformity of conservative ceramic

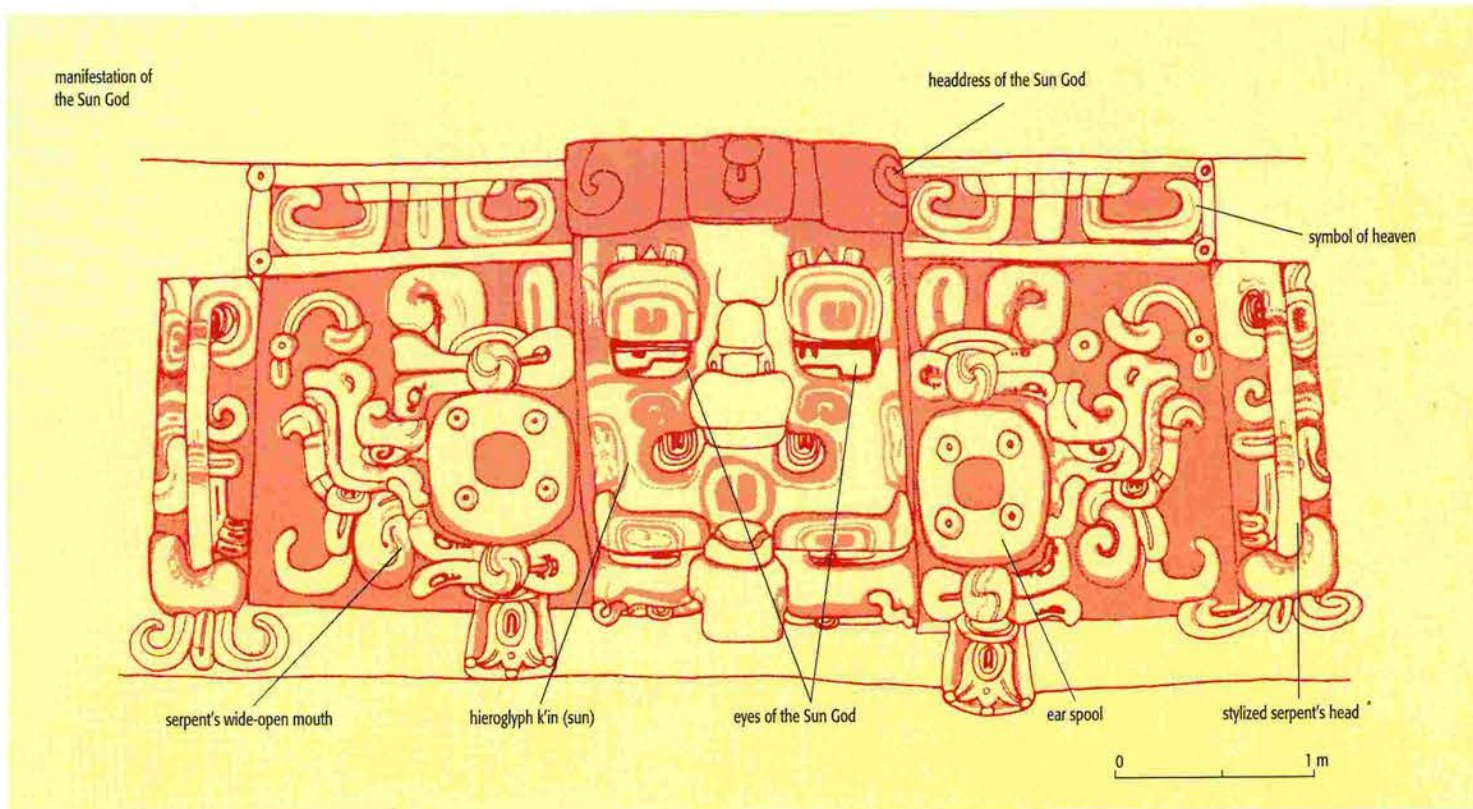


84 Residential area. Nakbe, Guatemala, Structure 84; Late Preclassic. Not only large platforms but also residential buildings were found in Late Preclassic cities such as Nakbe, El Mirador, Lamanai, Cerros, and Calakmul; the platforms had probably been used to support temple buildings. These were also placed on low plinths with stairs leading up to them, and were made of perishable materials such as wood and straw; however, there were also stone buildings which already had corbel arches.

82 *Drawing reconstructing Group H at Uaxactun*
 Building complex H of Uaxactun was excavated in 1985 by a group of Guatemalan archeologists under the guidance of Juan Antonio Valdés. It consists of a Late Preclassic platform on which there were six buildings. Four buildings had corbel arches. The external façades were painted red, and decorated with murals depicting figures. Structure Sub-3 is a 5.25 m high pyramid plinth that supported a building made of perishable material. The stairs that led up to the top platform were flanked on both sides by large stucco masks painted red, black, and white. Sub-10, the small entrance building, was decorated with mat symbols and representations of deified ancestors – signs that the entire complex was used to legitimize the divine origins of a particular lineage (possibly the rulers of Uaxactun).

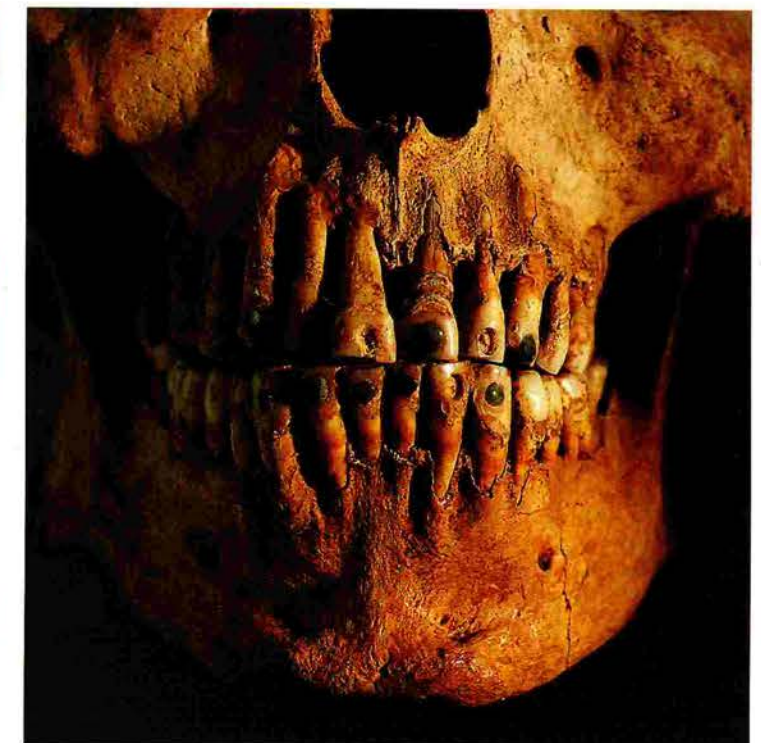


83 *Interpretations of one of the four stucco masks of Structure 5C-2nd of Cerros, Belize*
 Cerros, which lies on the bay of Chetumal in northern Belize, grew from a small Preclassic settlement, and became an important center in the Late Preclassic due to its favorable position on major trading routes. Around 50 B.C., a part of the former village was buried under new buildings, including Structure 5C-2nd, a terraced pyramid platform with four large stucco masks decorating the south side. Two of the masks represent the gods of Venus as the morning and evening star, the others the sun in the upperworld and underworld. The mask shown here is that of the sun god in the upper world.



66 *Strombus shells, Middle Preclassic finds*
 To the Maya, the shells of the Strombus snail (*Strombus gigas*) were particularly valuable and exotic because they had to be transported a long distance from the Caribbean

coast. In Nakbe they have been found only on Middle Preclassic sites. The shells were cut into pieces and drilled so they could be threaded onto cords and worn as prestigious items of jewelry.



67 *Jade-encrusted teeth, Nakbe, Guatemala; Middle Preclassic*
 Throughout the history of the Maya, decorating teeth with precious stones was considered a sign of beauty, and

was also regarded as a sign of a high social standing. Remains of teeth found in Nakbe indicate that the practice of encrustation with thin slivers of jade was first practiced in the Middle Preclassic.



68 *Fragment with woven motif, Nakbe, Guatemala; Middle Preclassic; baked clay*
 To the Maya, the mat (*pop* in Mayan) is a symbol of royal power. The motif could be a symbol of the development of rulership before the emergence of the divine kingdoms in the Classic.



69 *Ceramic fragment with a representation of the headdress of the god Hu'unal, Middle Preclassic; baked clay*
 In Classic art, the god Hu'unal is always shown with a three-cornered headdress. Because it resembles a jester's cap, the god is often also referred to as the "jester god";

the name in no way reflects on the god's role as the god of royal dynasties. The ceramic fragment shown here could be part of the headdress; if so, it is the earliest representation of this motif.

The chemical analyses of Middle Preclassic obsidian blades and flakes from sealed, secure contexts at Nakbe show that about two-thirds of Middle Preclassic obsidian was imported from the source of San Martín Jilotepeque in the Guatemalan Highlands, with one-third from El Chayal (Guatemala), and a tiny proportion from Ixtepeque (border between Guatemala and El Salvador).

Physical attributes of Maya elite status, such as skull deformation, achieved by binding a plank to the forehead for the first few days after birth, and inlaid exotic stones in human teeth (ill. 67) were also apparent during the Middle Preclassic period. Figurines of the god Hu'unal, who later became god of the kings (ill. 69), and woven mat motifs (ill. 68) from early Middle Preclassic deposits, suggest that the iconography of rulership, evident in Olmec societies of the Gulf Coast region of Mexico, was also present in Maya societies prior to 600 B.C.

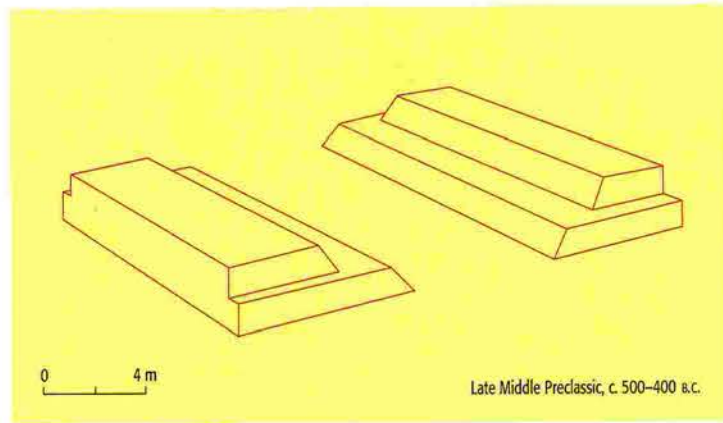
Beginnings of monumental architecture in the Late Middle Preclassic

By the late Middle Preclassic period, between 600 to 400 B.C., pyramidal structures of up to 18 meters (59 ft.) in height had been constructed at Nakbe. These buildings were placed on formal platforms, constructed with long linear rows of stones and paved by carefully-placed blocks. Stone fill buried the previous village deposits from the early Middle Preclassic period, and distribution of primary deposits at the site suggests that the settlement core at Nakbe was approximately 50 hectares (124 acres) in size.

The orientation of the site is in stark contrast to contemporaneous Gulf Coast and Highland centers. Olmec site orientation is primarily on a north-south axis, while the early Maya centers at Nakbe, Tintal, El Mirador, and possibly Naachtun are on an east-west axis. The east-west axis of site orientation appears to be consistent with subsequent Maya centers, and suggests that monumental architecture developed in the Lowlands independently and without outside influence.

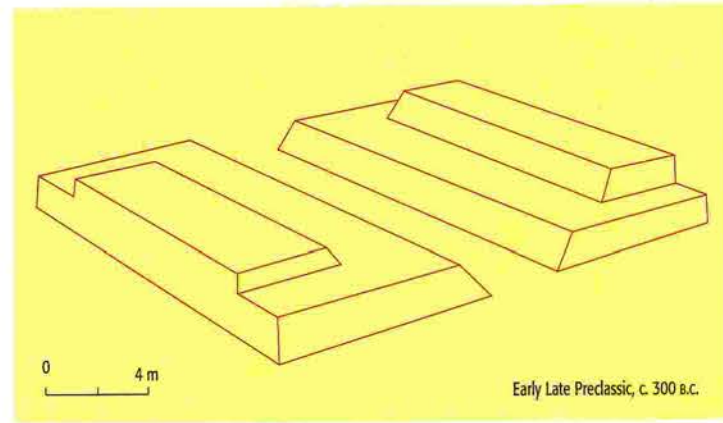
The massive platforms – up to 40,000 square meters (43,760 square yards) in size – provided the setting for the introduction of a formal, consistent, architectural complex that was named after Group E at the site of Uaxactun where it was discovered. The construction of this form in the Middle Preclassic at Nakbe and elsewhere established a major architectural component of ritual significance that was to persist for centuries at hundreds of Maya sites. This pattern consists of at least two principal buildings constructed on a platform, with the structure on the east side consisting of an elongated, north-south platform (often with a single central building), while the western construction is a pyramid, commonly with a stairway on each side of the structure.

The Late Middle Preclassic period also witnessed the first ball court construction at Nakbe. This correlates chronologically with a Middle Preclassic ball game court found at Abaj Takalik and architecturally with subsequent Preclassic ball game courts in the Lowlands. Excavations by the Guatemalan archaeologist Juan Luis Velásquez at Nakbe in the 1990s revealed the detailed sequence of three phases of ball game court modifications, before it was abandoned in the Late Preclassic period (ills. 70–72). It is worth noting, however, that Late Classic inhabitants apparently utilized this court again, since a small addition of primitive stone, one course high, was added to the ruins of the court during the Late Classic period.



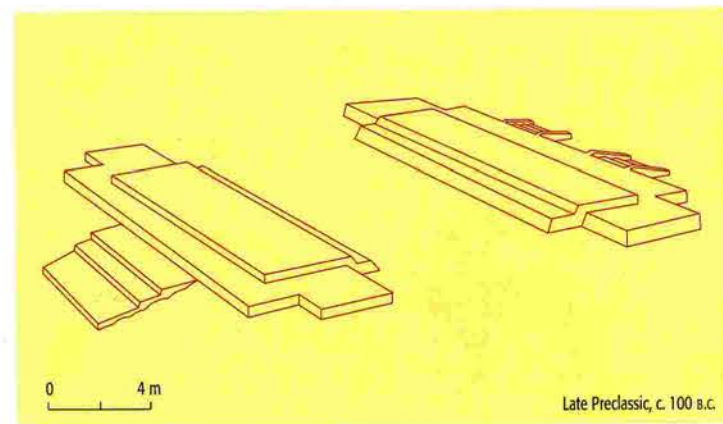
70 The ball game court of Nakbe in the Late Middle Preclassic, c. 500–400 B.C. The ball game court of Nakbe is situated in the south of the East Group. Excavations by the Guatemalan archaeologist Juan Luis Velásquez in the 1990s revealed that it had been built in three phases, the oldest of which

dates back to the Late Middle Preclassic. This makes the ball game court at Nakbe one of the oldest in Mesoamerica to be dated with accuracy. Even in its earliest phase it had the characteristic shape of two parallel low buildings with the actual court in between them.



71 The ball game court in the Early Late Preclassic. The bases for the platforms adjoining the court were extended in the Early Late Preclassic, which resulted in a

narrower court. The shape of the earlier ballgame court was retained.



72 The ball game court in the Late Preclassic. Around 100 B.C., when Nakbar was no longer flourishing, the ball game court was remodeled a second time. Then, a part of the older platform was dismantled,

and lower platforms constructed with stairs on both sides. This third phase again reflects the plan for the first ball game court.

Stucco – the artistic medium of the Late Preclassic

While the monumental size and introduction of triadic architecture made for major transformations of the architectural landscape, there was to be a further innovation in the first Maya cities: monumental architectural sculpture on the primary stairways of buildings. While shallow relief art seems to have appeared in the later Middle Preclassic period, it was during the Late Preclassic that monumental architectural sculpture became the dominant medium for expressing authority and power. These sculptures consisted of deity portraits of monumental proportions, sometimes up to four meters (13 ft.) high, often flanked by profile images of the same deity with a profusion of symbolic attributes (ill. 81). Stucco on masks and reliefs was first painted cream, and then accented with red and black lines which provided a stark contrast to the red structures on which they were found. The first stucco masks of this kind were

excavated at Uaxactun in the 1920s, but large numbers of similar architectural decorations have since been found at Cerros and Lamanai (Belize), Tikal, Uaxactun, El Mirador and Nakbe (Guatemala), Calakmul, Edzna, Chiapa de Corzo, and at El Tigre (Mexico).

81 Stucco mask on the main pyramid, Acanceh, Yucatan, Mexico; main pyramid, Late Preclassic, c. 300 B.C.–250 A.D.; lime stucco, painted; H. 285 cm. Acanceh is an important foundation of the Late Preclassic in the north-west of the Yucatan peninsula. The remains of the ancient site have now been completely built over by the modern city of the same name. Right in

the center is the Preclassic main pyramid, whose four walls are decorated by four oversized stucco masks that were only excavated by Mexican archaeologists at the end of the 1990s. These masks are surrounded by numerous symbolic attributes such as ornate ear jewelry, large headdresses, and spirals sprouting from their mouths.



power of an emerging elite, and led to more complex social, political, and economic structures.

Urbanization and state formation in the Late Preclassic

The economic and political growth that occurred during the Middle Preclassic period set the stage for one of the most remarkable cultural epics in Maya history: the Late Preclassic period. Major changes occurred throughout the Mirador Basin and the entire Maya region during this period (c. 350 B.C.–250 A.D.). Perhaps the most obvious was the emphasis on monumental architecture of an unprecedented size and scale. In this era, which could be called the “Era of Monumentality,” massive pyramids were built at El Mirador (ill. 78), Nakbe, Tintal, Wakna, and possibly La Manteca and Naachtun that ranged in height from between 40 and 72 meters (131 and 236 ft.). Platform constructions were built or modified involving millions of cubic meters of construction fill, indicating a significant and unparalleled control of labor and economic resources by the administrative elite (ill. 79). In addition, labor-consuming quarry and construction practices maximized the size and quantity of stone blocks, and better cutting methods meant they could be fitted more precisely into the walls (ill. 76). This created an even greater demand for labor and building materials, and significantly increased building costs.

It is curious that favorably positioned sites in river valleys, lakes or close to the coast, which later became dominant powers during the Classic period, did not have an antecedent Late Preclassic population. This suggests that population pressure, warfare, or competition for decreasing resources as argued by previous models, was not a factor in the rise of social and political complexity in the Late Preclassic; had land and natural resources genuinely been limited in this time, these regions would also have been inhabited. Although there were Preclassic settlements in favorable locations by large lakes, rivers, and lagoons, such as Yaxha (Guatemala) and Lamanai (Belize; ill. 80), it is surprising that there was not a more sustained Middle Preclassic occupation despite the fact that areas with such a wealth of resources would surely have attracted numerous pioneers. Instead, the heavy occupation at Lamanai appears to have occurred during the Late Preclassic period, around the time of the construction of the 33-meter (108 ft.) high main pyramid, Structure N10-43, in the central portion of the site. Other major constructions (Structures N 9-56, P9-2, P9-25, P 8-12) from the Late Preclassic period are concentrated in the northern section of the site, not surprisingly near what is believed to be the ancient harbor. A similar phenomenon occurred at Cerros, located directly on the coast of Chetumal Bay, which suggests that the Middle Preclassic centers of the interior regions did not establish settlements directly associated with the prime resource locations even though the importation of shell was an important component of merchant activity. Rather, settlements at Cerros and numerous other coastal sites seem to have originated almost exclusively in the Late Preclassic period and continued to thrive for several centuries before being abandoned.

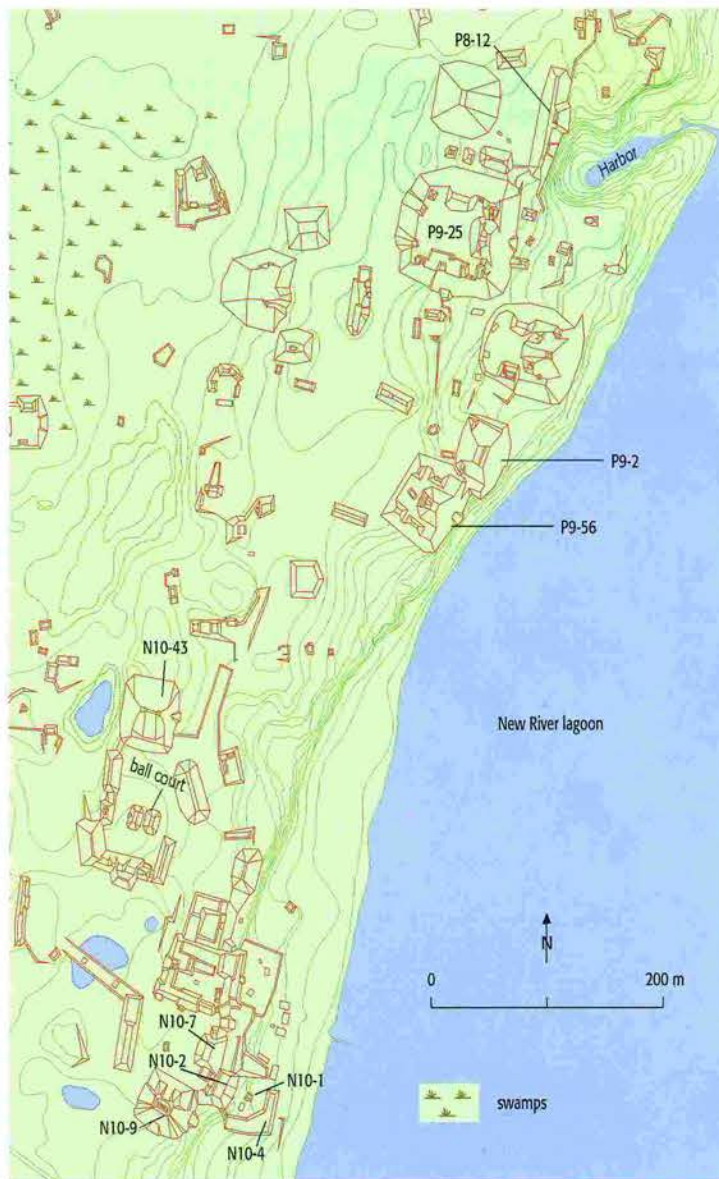
In addition to the monumental size of buildings that seems to have swept throughout the Lowlands and particularly in the central core area of the northern Peten, radical changes in structural forms included the introduction of large pyramidal platforms with three summit structures, known as the “triadic architectural form.” These three buildings, with a central dominant structure flanked by two smaller buildings facing each other, formed the most prevalent architectural format in the Late Preclassic. Clues to the meaning and purpose of the triad arrangement were first provided by ethnologists Barbara and Dennis Tedlock after consultations with Maya shamans about various constellations.

Tedlock noted that the three stars in the constellation of Orion known as Alnitak, Saiph, and Rigel were, according to the K'iche' Maya, the three hearthstones of the Maya kitchen, within which burned the fire of creation. The K'ich'e see the actual fire in Nebula M42 between the three stars in this constellation. This triadic form was obviously considered to be particularly sacred, since it persisted well into the Classic period. The historic Lacandon Maya still have “community houses” arranged in a triadic form today.

80 Map of the city of Lamanai, Belize

The archeological site of Lamanai is situated on the shores of the New River, which runs into the Caribbean and forms a wide lagoon at this point. The city was occupied consistently from the Preclassic until early historic times. The Spaniards built a small church here in the 18th century for use by their missionaries – which is

why the city is also known as “Indian Church.” The New River was an important trading route, which is why Lamanai had its own harbor where the dealers’ canoes could be pulled onto land. Most of the settlers’ remains are in the north of the site, with the exception of the 33-meter high Late Preclassic pyramid with the technical name of N10-43.



Earliest stone sculptures

Carved stone monuments in the form of stelae and stone altars were also introduced during the Late Middle Preclassic period at the sites of Tintal, Nakbe, Isla, Pedernal, and possibly El Mirador. These monuments are similar in many ways to other examples known in the Gulf and Pacific Coast areas of Mesoamerica from 500 to c. 350 B.C. Some of the specific characteristics of these sculptures at Tintal and Nakbe consist of enormous monuments of exotic (imported) stone in celtiform shape with figures standing with legs in tandem forms (Tintal Stela 1, Nakbe Stela 1; ill. 75), carved edges of monuments with abstract symbols (Nakbe Monuments 2, 3; ill. 74), large slab altars in the center-line axis of buildings (Nakbe Altar 4), unmodified boulders with deity portraits incised on stone (Isla Stela 1), and carved circular altars with downward-looking

73 Monument 8 Nakbe, Guatemala; Late Middle Preclassic, c. 500–400 B.C.

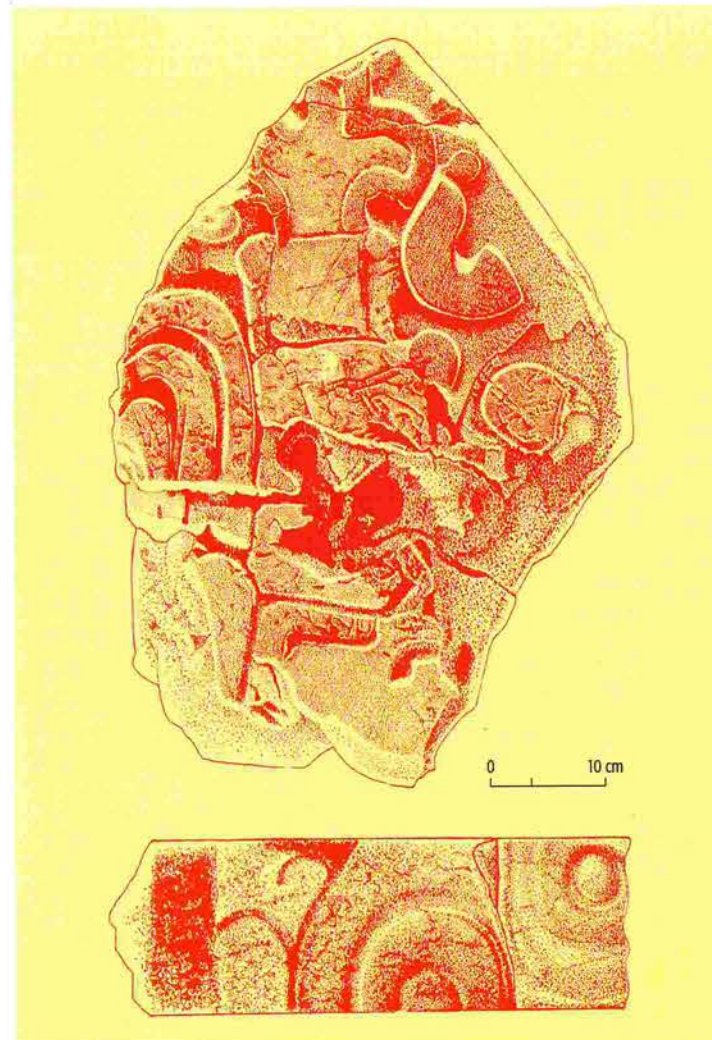
This sculpted round altar is an unusual monument, the like of which is only seen in the Olmec-inspired sculptures in the Highlands of Guatemala. Around a part

of the outer edge is a so-called celestial band with alligator-like creatures on the left and right; obviously people in the Middle Preclassic believed that heaven was inhabited.

74 Monument 2 Nakbe, Guatemala; Late Middle Preclassic, c. 500–400 B.C.; limestone; H. 48 cm, W. 43 cm

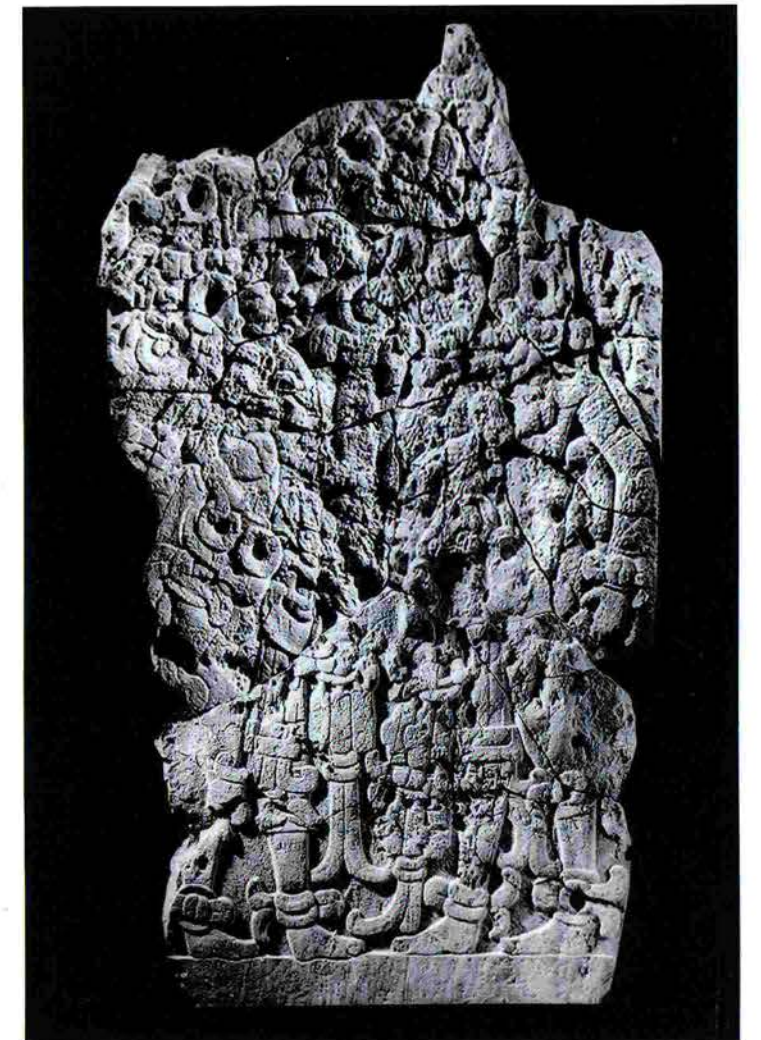
Monument 2 from Nakbe is a fragment of a flat stela that was sculpted on the front and on one of the narrow sides. Typical of sculptures from the Preclassic period are abstract symbols, curved lines, spirals, and a *horror vacui*, which led sculptors to fill the entire available surface. A

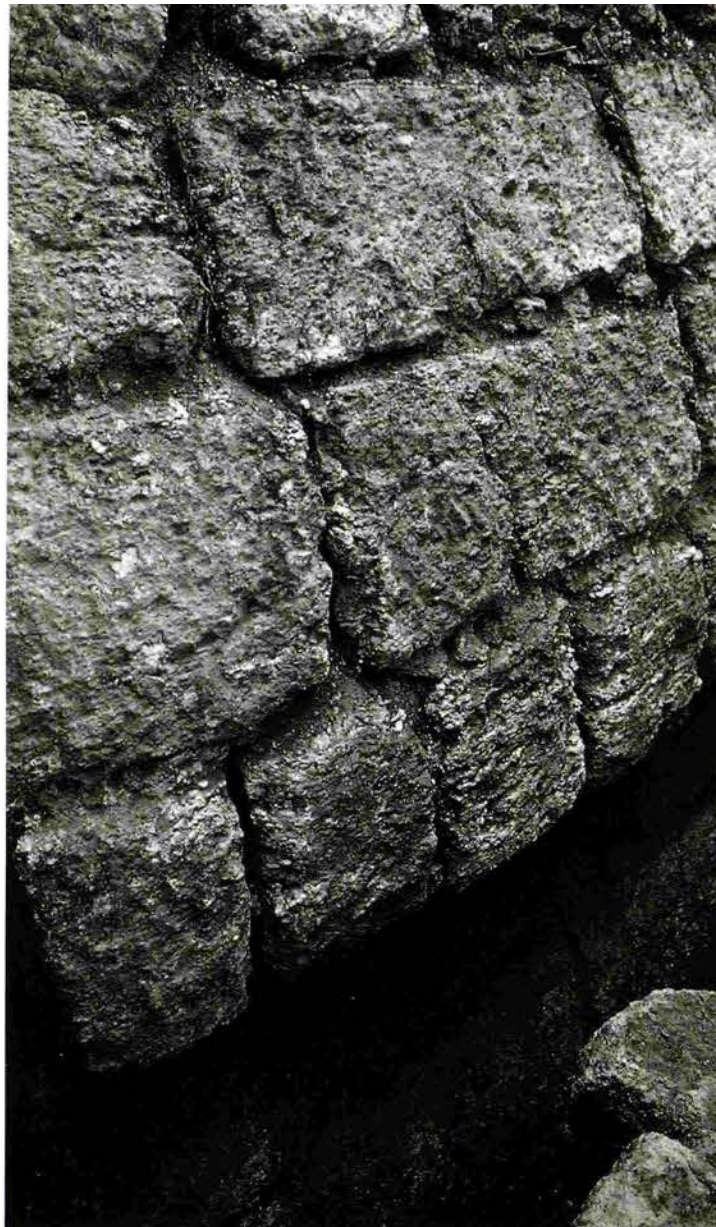
strongly abstracted World Tree in the shape of a cross is visible in the top half of the monument; similar items appeared very much later on the famous reliefs of Palenque.



75 Stela 1 Nakbe, Guatemala, Main Plaza of the East Group outside Structure 52; Late Middle Preclassic/Early Late Preclassic, c. 500–200 B.C.; limestone; H. 340 cm

Although the Late Preclassic stelae are usually monuments about one meter high, Stela 1 from Nakbe proves that monuments from earlier times were unusually large. Stela 1 was found on the Main Plaza of the East Group. On its front are two standing figures, obviously communicating with each other, dressed in full regalia. On the front of the headress on the right-hand figure is a mask with Olmec features – wide, flat nose, widely opened mouth with the teeth of a beast of prey – that suggest contact with neighboring Olmec settlements.





76 Wall of Structure 35, Nakbe, Guatemala, Structure 35; Late Middle Preclassic, limestone
Masonry changed in Nakbe in the Late Middle Preclassic. Instead of coarse masonry made with cut stones, the Maya began around 500 B.C. to cut the stone into large regular squares almost one meter in size. The outsides of the walls were covered with stucco. This was also the time when the façade was divided vertically into an upper sloping and lower recessed zone, a profile that is known as "apron molding."

77 Middle Preclassic masonry, Nakbe, Guatemala; Middle Preclassic
Although the stones used for the building are uniform in size, the design of the façade is different. Here, the lime stucco covering not only improved the appearance of the wall, but also offered protection against water seeping into the masonry.



dual-headed reptiles with an early sky/water band joining them (Nakbe Monument 8; ill. 20).

The ritual veneration of early sculpture in the Mirador Basin by the later Maya inhabitants of the Late Classic period (600–800 A.D.) occurred with Tintal Stela 1, Nakbe Stela 1, Nakbe Monuments 2 and 3, Isla Stela 1, Isla Altar 2, Isla Stela 3, and six known monuments at Pedernal (Stela 1, Altar 5, Monuments 2–5). This ritual behavior included the burning of copal in spiked incense burners and the burials of important individuals near the monuments. It also included the smashing of hundreds of Late Classic ceramic vessels, which were probably most noted for containing liquids.

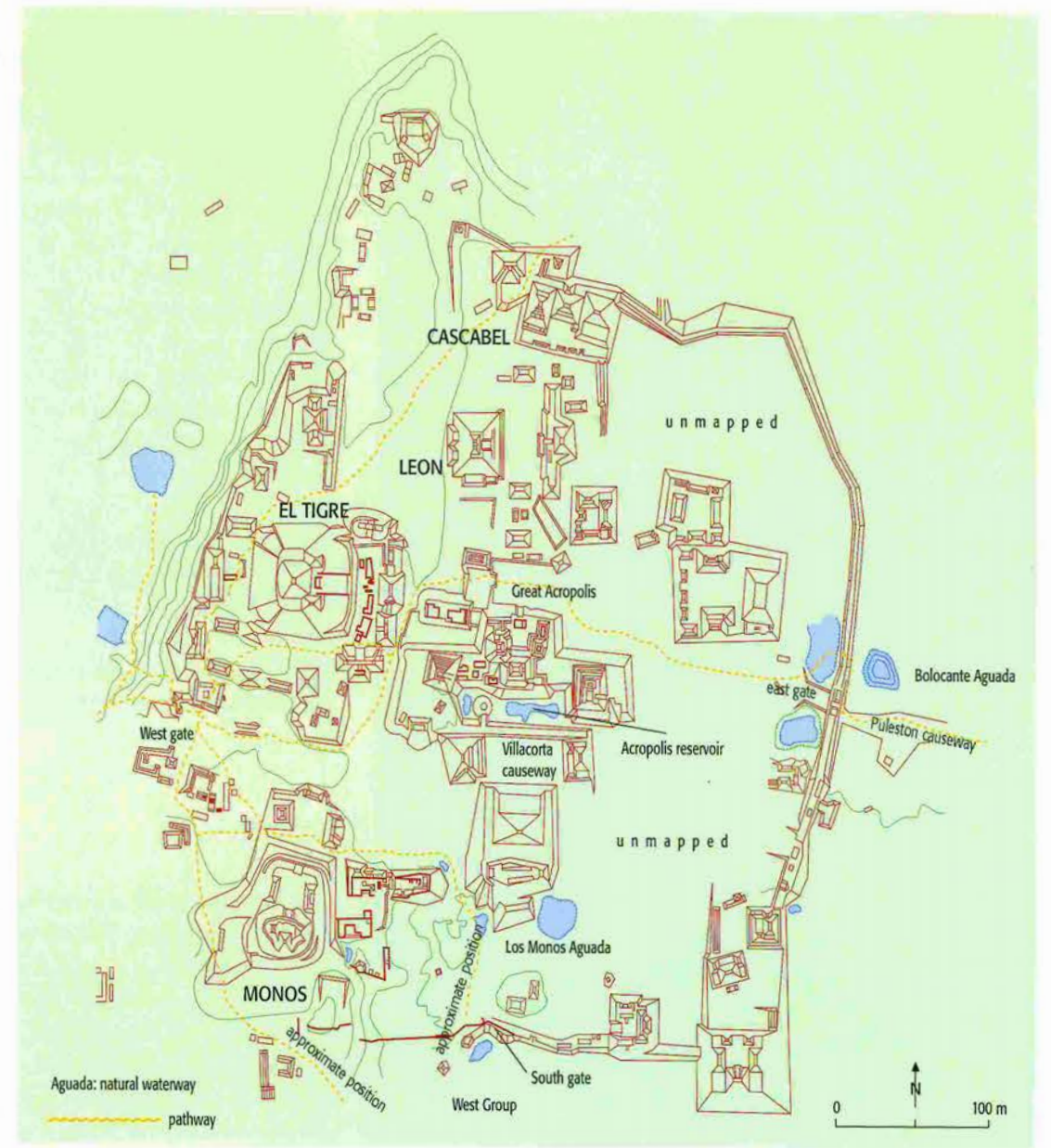
The practice in the Late Classic period of transporting Middle and Late Preclassic monuments from their original contexts and relocating them in Late Classic structures may explain the general absence of Preclassic sculpture in their original location in the major sites. One monument, Tintal Stela 1, was carved from a red sandstone slab that weighed at least 6.42 metric tons (6.32 tons). According to chemical analyses conducted by Paul Wallace and Thomas Schreiner of the University of California, Berkeley, the monument originated from the area of Altar de Sacrificios in the lower Pasión and upper Usumacinta Rivers and was transported 110 km (68 miles) into the Mirador Basin. This was probably accomplished during the late Middle Preclassic period (500–350 B.C.) since the Late Classic occupation at Tintal does not seem to have had the centralized organization to transport the monument the considerable distance that it came.

A complex society

Maya society gained in complexity and hierarchical structure in the Late Middle Preclassic period. This development is evident in the architecture and elsewhere. The size and shape of limestone blocks used for building changed considerably, because they now used only carefully cut stones of up to 90 cm (3 ft.) (ills. 76, 77). More lime was produced and more stucco utilized for plastering and decorating their buildings. It is likely that the general increase in social and economic complexity was due to the introduction of various intensive agricultural techniques, particularly the importation of swamp mud into upland

78 Map of the West Group at El Mirador, Peten, Guatemala

The vast Maya city of El Mirador is situated in the remote north of Guatemala, only 7 km from what is now the Mexican border. The center of the city covers an area the size of the center of Tikal. The massive pyramids and platforms make everything else built there pale into insignificance. The base of El Tigre, the biggest of all the platforms, is six times bigger than Temple IV, Tikal's tallest building. Various causeways link the center of the city with the outlying buildings as well as with other cities such as Nakbe and Tintal. The West Group is walled to the east and south; like the majority of the structures here, it dates to the Late Preclassic.



79 Drawing reconstructing the view of the El Tigre platform from the Great Acropolis at El Mirador

Large pyramid platforms that supported three buildings are characteristic of the architecture of the Preclassic. The El Tigre platform is the biggest of its kind in the entire Maya region. Excavations revealed a series of subsequent constructions, all of which date back to the Late Preclassic. Platform 34, which adjoins to the south and is on the left edge of the plaza, also supported three buildings. This drawing not only gives an impression of the size of the city, but also of its colorfulness; almost all of the buildings were covered with stucco and painted red.



terraces forming gardens and production areas within the civic centers of sites. It is evident from numerous excavation and sampling strategies that the surrounding swamps were the reason why the Maya settled here. Numerous multi-disciplinary investigations, including pollen, soils, geological and geographic studies, botany and paleo-botany have suggested that the areas which now form the poor-quality seasonal swamps known as *bajos* were rich wetland marshes in Middle and Late Preclassic times. Fossil remnants of these ancient wetland systems still tell of the evolutionary metamorphosis of the landscape. These marshes provided not only water, flora, and fauna, but in particular the rich renewable soils that were imported into the site centers to form a variety of civic and residential gardens (see Harrison, pp. 76).

These natural resources provided a means of effective exploitation and high yields; the abundance of food was in turn the basis for cultural innovations which allowed socially legitimate access to wealth and status. On this basis, an organized system was developed for exploiting additional natural resources, the adoption of systematic agricultural strategies, and an increasing focus on labor intensification and specialist production methods. The result of such radical transformations served to consolidate the economic and political