

CALAKMUL: NEW DATA FROM AN ANCIENT MAYA CAPITAL IN CAMPECHE, MEXICO

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In this paper we summarize more than a decade of interdisciplinary work at Calakmul, including (1) the mapping project, which has covered more than 30 km²; (2) the excavation project, which has uncovered major structures and tombs in the center of the city; (3) the epigraphic project, whose goal is to study the hieroglyphic texts and relate them to the archaeological evidence; (4) the analysis of the architecture, ceramics, and chipped stone to define sacred and secular activity areas and chronological stages; and (5) a focus on the ecology, hydrology, and paleoclimatology of Calakmul and its environs with the aim of understanding more fully its periods of development and decline.

En este artículo resumimos más de una década de trabajo interdisciplinario en Calakmul que incluye (1) nuestro proyecto de mapeo de 30 km² del sitio para definir su patrón de asentamiento; (2) el proyecto de excavación que ha revelado algunas de las estructuras más grandes de Calakmul como también varias tumbas en el centro de la ciudad; (3) el proyecto epigráfico cuya meta es estudiar los textos jeroglíficos y relacionarlos con datos arqueológicos, (4) el análisis de la arquitectura, cerámica, y lítica para definir áreas de actividades seculares y sagradas, y etapas cronológicas y (5) estudios sobre ecología, hidrología y paleoclimatología de Calakmul y sus alrededores para entender mejor sus periodos de desarrollo y declinación.

The ancient Maya city of Calakmul lies 30 km north of the Guatemalan border and 38 km north of the ruins of El Mirador (Figure 1). Although Calakmul has been known since its discovery by Cyrus L. Lundell in 1931 (Lundell 1933; Morley 1932; Ruppert and Denison 1943), no systematic mapping outside the downtown area had ever been conducted prior to our work. Furthermore, no excavation had ever been carried out there.

As a result of recent excavations and systematic settlement survey at Calakmul, we now know that (1) the site was occupied from Middle Preclassic to Postclassic times; (2) the particularly good representation of the Late Preclassic, Early Classic, and Late Classic periods provides us with an opportunity to document the transition from chiefdom to expansionist regional state; (3) Calakmul

may have been an important competitor of El Mirador during the Late Preclassic; (4) it had Early Classic buildings and high-status tombs comparable to some from Río Azul, Tikal, and Copán; (5) the density of Late Classic buildings in “downtown” Calakmul is even higher than that of “downtown” Tikal (Fletcher and Gann 1992); (6) Calakmul was one of the larger Maya cities, estimated at 70 km² and 50,000 people during the Late Classic; (7) during the Late Classic it administered a large regional state covering ca. 8000 km²; and (8) to sustain its high population (particularly during the dry season), the city developed a sophisticated system of water management.

The Mapping Project 1982–Present

Since 1982 our survey goals have been the systematic mapping of the city of Calakmul and the

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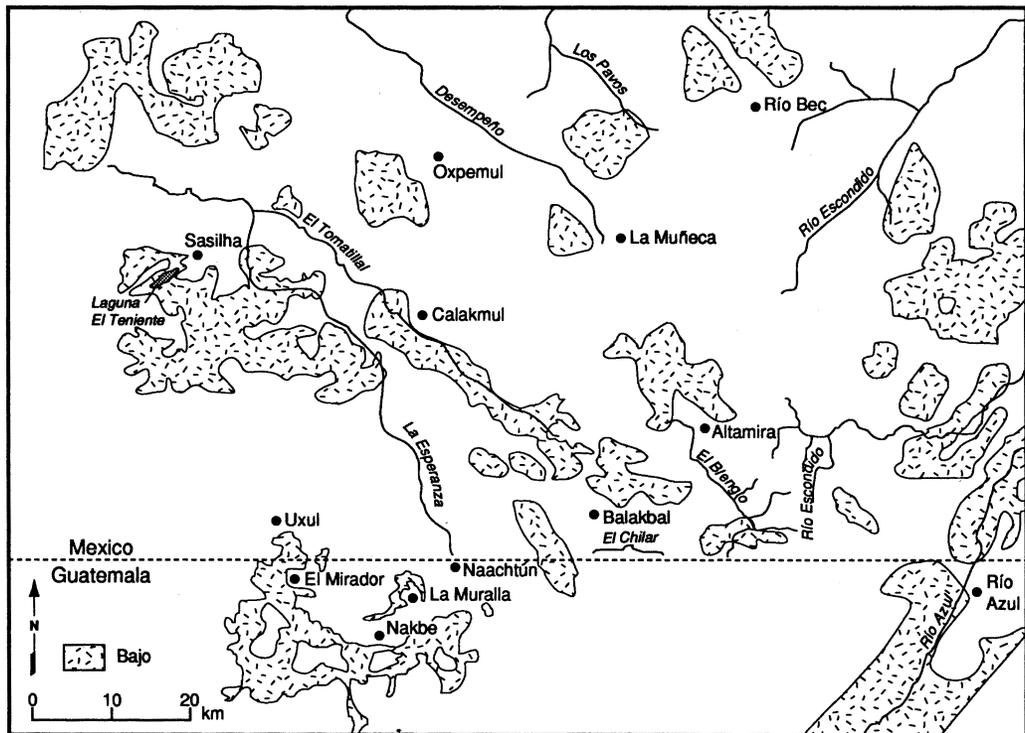


Figure 1. Calakmul, El Mirador, Río Azul, and major *bajos* in the region. (Original map by Juan J. Cosgaya M.; redrafted by Kay Clahassey)

determination of the limits of the Calakmul polity. To date, our survey has covered more than 30 km², and has achieved our first goal by producing a map that includes more than 6,250 structures and features (Folan 1985; Folan et al. 1990; Fletcher and Gann 1992; Fletcher et al. 1987; May Hau et al. 1990). Our second goal—that of reaching Calakmul's secondary and tertiary dependencies as revealed by epigraphic studies (Marcus 1974, 1976, 1987a, 1987b, 1988)—has not yet been completed, but it will be accomplished with survey, remote sensing, and ground truth (Folan 1993) within the 723,000-ha Calakmul Biosphere Reserve (Folan 1984; Folan et al. 1992).

The surveyed area includes not only the city and its suburbs but also a large section of the El Laberinto bajo, a 34-x-8-km natural depression that is a major source of water during the rainy season, and lies immediately west of the site center (Figures 1 and 2). Calakmul thus joins other Maya sites such as Tikal, Naachtún, Naranjo, Kinal, Nakum, Nakbe, and El Mirador in being

situated next to a major *bajo* (Adams et al. 1981:1462; Dahlin 1984; Hansen 1990; Harrison 1977:491).

The advantages of establishing settlements adjacent to such *bajos* included access to seasonal sources of water and to locally available *bajo* resources such as chert. In addition to El Laberinto, Calakmul is associated with a set of interconnected hydraulic features, both natural and artificial—*bajos*, *aguadas* (small catch-basins), arroyos, and canals (Figure 2). These hydraulic features encircle 22 km² of Calakmul and produce a zone that appears to have defined an “inner Calakmul,” which was a culturally meaningful unit to the ancient occupants.

This circumscription of innermost Calakmul recalls similar situations at the Maya centers of Cerros and Becán. At Cerros an area of .37 km², containing 95 structures, is enclosed by a canal (Freidel and Scarborough 1982:133). Becán's circumscribed area of .18 km² is not encircled by a canal but rather by a Late Preclassic/Early Classic ditch, 5 m deep and 16 m wide (Webster 1976).

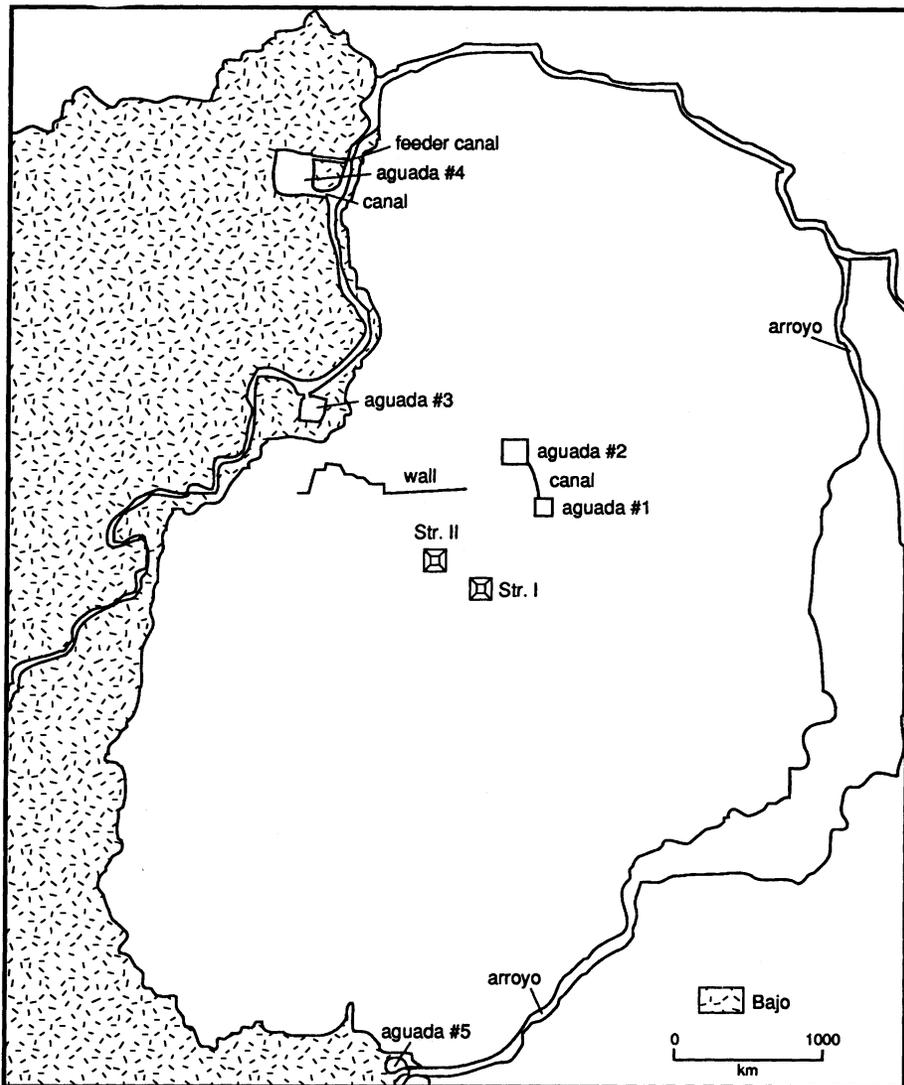


Figure 2. Calakmul is encircled by hydraulic works, including *bajos*, *aguadas*, arroyos, and canals. (Redrafted by Kay Clahasse from map prepared by Jacinto May Hau and William J. Folan)

Although Becán's ditch was a defensive feature, it is not clear whether the canal at Cerros and the arroyo at Calakmul served the same function. The circumscribed areas at Cerros and Becán are much smaller than Calakmul's 22 km².

In the 1970s some archaeologists linked water management to the emergence of complexity in the Maya lowlands. Matheny (1976:639) noted that "unless settlers could locate at a karst-cenote, rare spring, or perennial stream or river, they had to develop a water system," and "it appears evident to

me that water controls in the lowland Maya area played an important role in the development of Preclassic and Classic civilizations" (1976:646). More recently, Scarborough and Gallopín (1991:661) have argued that water management in the Maya lowlands has been underrecognized as a "centralizing stimulus." Using data from Late Classic Tikal, Scarborough and Gallopín (1991:658) suggest that (1) the Tikal elite constructed a system of large reservoirs to cope with the unavailability of water during the dry season

(4–5 months a year); (2) the central-precinct reservoirs at Tikal retained water runoff from the largest and most completely paved reservoir catchment area; and (3) the concentration of reservoirs in the central precinct and their proximity to the largest public architecture probably had the symbolic function of linking elite authority with the elaborate display and control of water in a manner somewhat similar to Calakmul's reservoirs more distant from major architecture (Folan 1988:Figure 1). Still other archaeologists have linked the development of such hydraulic systems to climatic changes during the lifetime of the site (Folan et al. 1983; Gunn et al. 1994, 1995).

The ancient hydraulic system at Calakmul reflects the city's size and importance. Calakmul is associated with 13 *aguadas* with a minimal total capacity of 197,558,000 liters (Gates and Folan 1993; Zapata Castorena 1985). Two *aguadas* are formed along the edge of El Laberinto; one covers 5.5 ha, the other 1.5 ha. They are fed by rain water, or in some cases by a combination of canals, seepage, and runoff. Once the largest *aguada* is filled, it overflows into a canal that carries the water to the second largest *aguada*. Two smaller *aguadas* to the north of the site center are also connected by a 280-m-long constructed canal. The large arroyo that partially encircles 22 km² of the site also seems to have been modified by the ancient Maya (Domínguez Carrasco 1985, 1992a).

Calakmul seems to share three of the advantages proposed for Tikal as a settlement location (Coe 1965, 1967): (1) the presence of high ground near large seasonal swamps; (2) the presence of rich soils along the edges of *bajos* (Folan and Gallegos Osuna 1991); and (3) an abundance of flint nodules in the *bajos*. Tikal is situated on ridges that rise 50 m above the two major swamps flanking it on its west and east sides; to the north and south, where no major swamps occurred, the inhabitants used earthworks to define the city's boundaries (Puleston 1983; Puleston and Callender 1967). On the basis of those boundaries, the city of Tikal covered 120 km² and had a population greater than 60,000 (Adams 1991; Haviland 1969). The minimal Tikal state is believed to have included more than 425,000 people (Culbert et al. 1990:117). Like Tikal, Calakmul is situated on a natural promontory—a

dome of limestone 35 m high—and is flanked by *bajos* and low-lying terrain. As we have seen, Calakmul is bounded on the west by El Laberinto, and other *bajos*, arroyos, and *aguadas* encircle the promontory. Like Tikal, Calakmul has access to abundant local flint or chert exposed in the *bajos*.

Initial settlement at Calakmul was established during the Preclassic and seems to have followed the edge of the El Laberinto *bajo*. During the Classic period, the greater part of Calakmul's buildings continued to be situated along that *bajo*. Additionally, there are many structures placed on high ground or small islands within the *bajo* where chert was mined and worked (Domínguez Carrasco 1992a; Jacinto May Hau, personal communication 1984).

So far seven *sacbes* (causeways) have been associated with Calakmul: two have been mapped, two defined visually, and three located through remote sensing (Folan et al. 1995). *Sacbe* 1 (450 m long) and *Sacbe* 2 (70 m long) are urban features included on the Calakmul map (Folan et al. 1990). *Sacbes* 3 and 4 are both visible from the top of Structure I; the former extends ca. 8 km to the northeast and the latter 24 km to the southeast (Folan 1994; Folan and May Hau 1984). *Sacbe* 5 appears to extend to the west of the major *aguada*, and it then crosses El Laberinto *bajo* and continues for at least 16 km. *Sacbe* 6 seems to link Calakmul with El Mirador, located 38.25 km to the southwest, and continues to El Tintal for an additional 30 km. To the south of *Sacbe* 6 is *Sacbe* 7, which cuts diagonally across El Laberinto *bajo* for a distance of at least 5.1 km (Folan et al. 1995). It seems therefore that Calakmul and El Mirador (as well as Nakbe and Tintal) were connected by *sacbes* (Hansen 1990; Jones 1985; Miller 1992). These *sacbes* suggest that strong sociopolitical ties existed among the four centers, perhaps beginning during the Preclassic, when Calakmul and El Mirador were both major centers, and continuing into the Classic, when Calakmul became the pre-eminent city in the region. Dating the causeways (and any extensions to them) will be very important in the evaluation of what sociopolitical roles they played and when they played them.

The Layout of the City of Calakmul

Like some other Maya cities, including Cobá

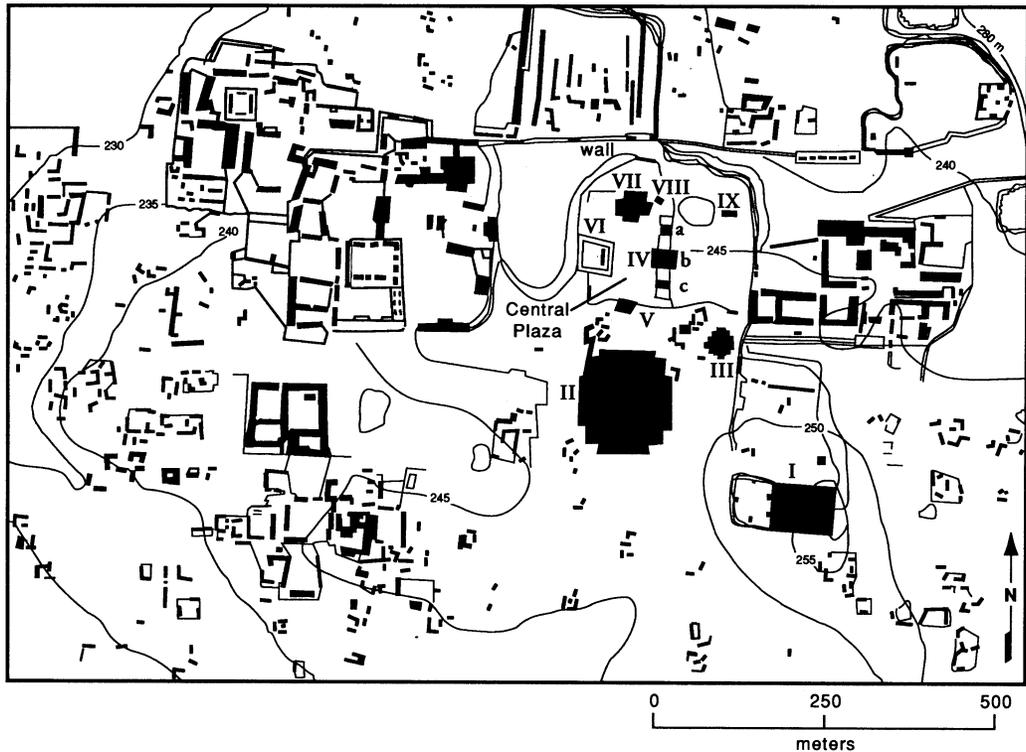


Figure 3. Calakmul's Central Plaza and other structures. (Folan et al. 1990; redrawn by Kay Clahassey)

(Folan et al. 1983), Calakmul is arranged in concentric zones. As one moves out from Calakmul's inner zone of 1.75 km², one encounters decreasing density of monumental public buildings. The downtown area of 1.75 km² contains 975 structures, of which 300 are of vaulted stone masonry. Some 92 buildings are set on substantial pyramids that define courts and plazas (Fletcher et al. 1987). Some of these courts have the same dimensions (ca. 75 x 60 m) as the quadrangle delimited by the four structures composing the Monjas group at Uxmal, Yucatán.

The urban core of Calakmul is delimited on the north by an impressive wall, 6 m high and 1.89 m wide, that extends for approximately 1 km and has several entrances. Although it may have had a defensive function, the wall also established the inner core of public buildings and controlled the flow of traffic from north of the urban core.

There are impressive public buildings in and around the Central Plaza (Figure 3). On its south end is Structure II, an immense pyramid measuring 140 x 140 m at its base and 55 m high, known

to be Preclassic in date. North of Structure II is a long narrow two-level plaza interrupted only by Structure V, a large public building with a possible Preclassic platform in its interior. Structure V is ringed by 10 stelae; the two on the north side were dedicated in A.D. 623 and those on the south can be dated to A.D. 657–672 (Marcus 1987a:71–79).

Structure IVa, b, c, is a set of three buildings, with a Preclassic structure visible in the interior of the central Structure IVb (Figure 4). This set of buildings defines the east side of the Central Plaza, and Structure VI defines the west side; together they form an architectural assemblage very similar to Group E at Uaxactún. Group E is believed by Ricketson and Ricketson (1937) to have been used as an astronomical observatory to determine the dates of the annual solstices and equinoxes. Structure VI at Calakmul, like Pyramid E-VII at Uaxactún, faces three temples on the east (Structure IVa, b, c); those three temples in turn establish sight lines for anyone standing on the stairway of Structure VI. Standing in that spot, Abel Morales (1989) was able to con-

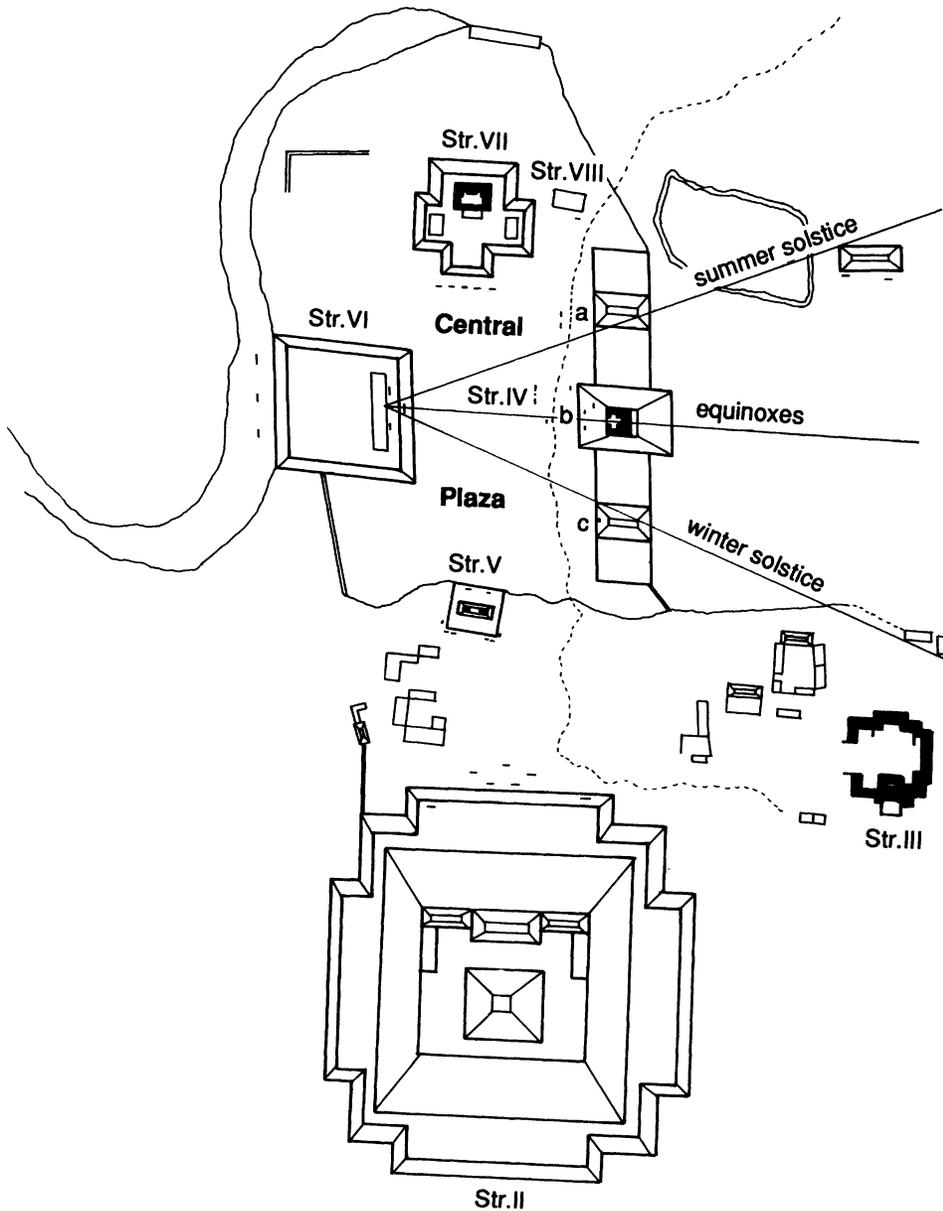


Figure 4. A set of buildings that may have functioned as an astronomical observatory at Calakmul. Standing on Structure VI at Calakmul, an observer could determine the dates of solstices and equinoxes. This arrangement of buildings at Calakmul is similar to that in Group E, Uaxactún, Guatemala.

firm that the sun did rise directly behind Structure IVb on March 21, the vernal equinox. The sun on its way north would also rise behind Structure IVa on June 21, the summer solstice; behind Structure IVb on its way back south on September 21, the autumnal equinox; and behind

Structure IVc on December 21, the winter solstice (Figure 4).

Structure VII is the principal structure that delimits the north end of the Central Plaza. This 24-m-high public building is associated with five plain stelae on its front, or south, side. Structure

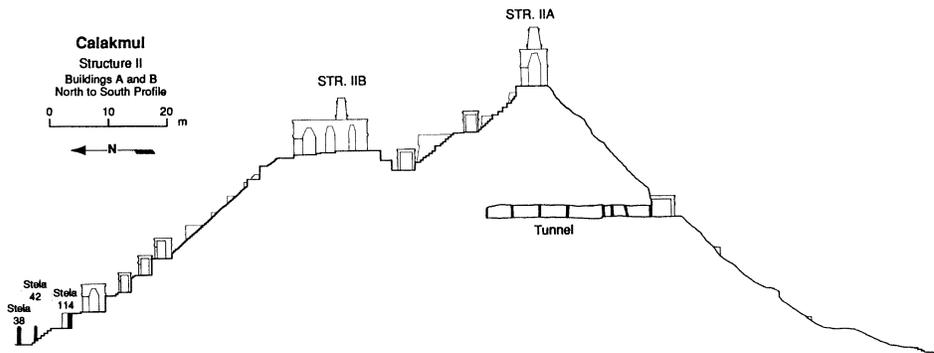


Figure 5. Structure II is a major Late Preclassic pyramid at Calakmul. Note location of tunnel, the newly discovered Stela 114, and Late Classic constructions such as Structure II-B. (Architectural reconstruction by Abel Morales L. and Ernesto Tamay; redrawn by Aida Amine Casanova Rosado and Fabián Pérez J.)

VIII, a small building east of Structure VII, is also associated with a large standing stela (No. 1) and altar (Morley 1932).

Structure I is a 50-m-high temple pyramid, gradually built up over the centuries, whose basal dimensions eventually exceeded those of Temple IV of Tikal (Zapata Castorena and Florey Folan 1985). Although Structure I appears to the observer to be much higher than nearby Structure II, this is because Structure I was built on a low hill (Ruppert and Denison 1943). Finally, Structure III, a multi-room building known as the Lundell Palace, is situated close to the eastern limits of the plaza, southeast of Structure IV (see below).

Many of Calakmul's residences are situated along the edge of the El Laberinto *bajo*. Although a few public buildings and high-status residences are interspersed throughout, the greater part of this area is taken up by the residences of commoners who may have utilized the spaces between family architectural units for horticulture and arboriculture. In some areas of Yucatán today, such interspersed agricultural plots are referred to as *chum uk'luum* ("land in the middle") (Adiel de la Cruz Balam Chan, personal communication 1987; Folan 1988; Killion et al. 1989:288).

The overall urban pattern of Calakmul may have been similar to that of the city of Campeche of not too long ago. This pattern, typical of many pre-industrial societies, was one in which the center had the important civic/ceremonial structures fronting the main plaza, with the palatial residences of many high-status individuals dispersed around them. Some nobles resided close to the

center, and some wealthy commoners (including skilled artisans) lived only a short distance away. Still farther out lived families mainly of commoners dedicated to horticulture and arboriculture.

Excavations 1984–1985 and 1988–1989

The principal excavations at Calakmul carried out so far have been in Structures II, III, and VII.

Structure II

Structure II—55 m high and 140 x 140 m at its base—is one of the larger built in Prehispanic Mesoamerica. Excavations into its interior reveal that this huge pyramid dates from the Late Preclassic. We recovered sealed deposits, all of them Preclassic, from a 28-m-long tunnel (Figure 5); diagnostics include a Mamom figurine, some Mamom sherds, and abundant Chicanel ceramics. In order of frequency, the Chicanel pottery types are Sierra Red, Zapatista Trickle-on-cream-brown, Polvero Black, and Flor Cream (Pincemin 1989b); the Sierra Red group constitutes more than 25 percent of the collection.

Structure II at Calakmul is similar in size and construction to the contemporaneous El Tigre pyramid at El Mirador (Matheny 1986). Both structures are 55 m in height, and the associated ceramics are very similar. From excavations on Structure 33 at El Mirador, near the southeast corner of the El Tigre pyramid, Marcus (1970) recovered Sierra Red and Polvero Black, as well as other Middle and Late Preclassic wares (Forsyth 1980:Figures 43, 44). As at Calakmul, the dominant Late Preclassic ware at El Mirador

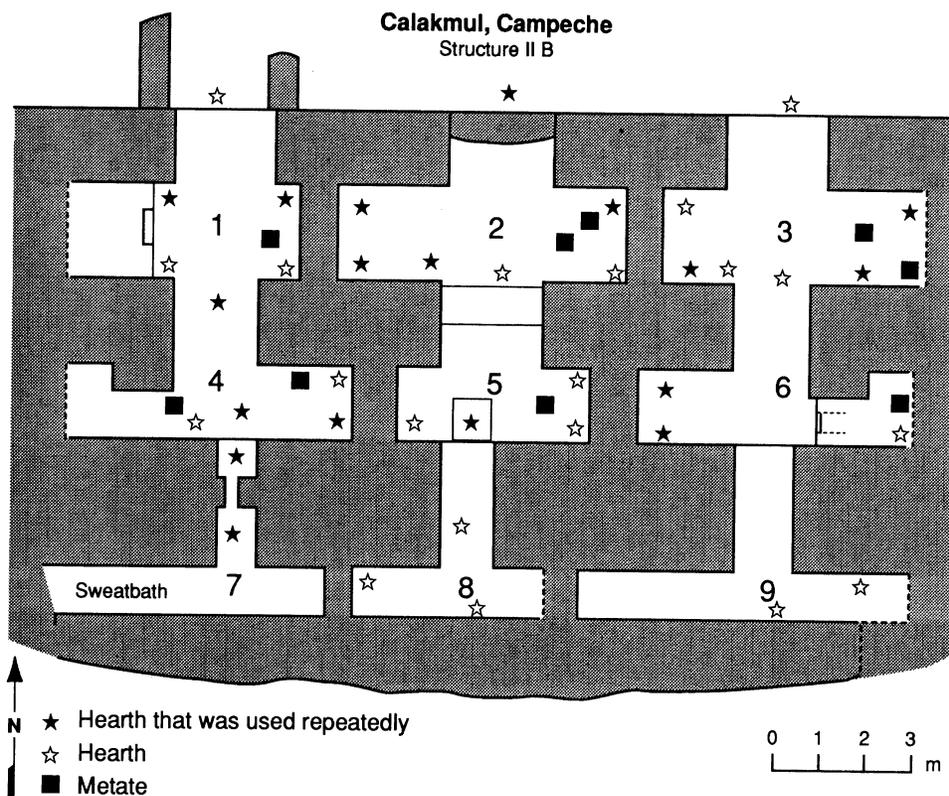


Figure 6. The Structure II-B palace at Calakmul. (Drawing by Abel Morales L. and Sophia Pincemin)

was the Sierra Red group, with Polvero Black and Flor Cream less numerous (Demarest 1984; Hansen 1984, Matheny 1986). Structure II at Calakmul also shows similarities with Late Preclassic structures and ceramics at Nakbe in northern Guatemala (Hansen 1991) and Nadzacaan, a site discovered by García Cruz (1993) some 80 km north of Calakmul.

Although minor additions to Structure II were made during Early Classic times, the most substantial alterations occurred during the Late Classic, when a nine-room palace with a painted stucco bas-relief roof comb (Structure II-B) was built atop the Structure II pyramid (Figure 5). This palace with vaulted roof measures 19.4 m x 12 m; its nine rooms are arranged in groups of three, one behind the other (Figure 6).

The front rooms of the palace (Rooms 1 to 3) and those just behind them (Rooms 4 to 6) were used for food preparation; each room contained one or more trough-like metates, and several hearths

that showed repeated use. In contrast, no metates were found in the innermost rooms (Rooms 7 to 9), which were presumably less desirable for tasks such as grinding corn and cooking because they were the farthest from sunlight and ventilation. We encountered other metates in front of the building and on a lower outside platform associated with the major stairway. Just as the number of metates decreases as one goes farther into the palace, so does the number of hearths per room (Figure 6). Three different functions can be suggested for the interior hearths of Structure II-B: whereas those in the front rooms were used for cooking, most hearths in the middle rooms may have been used for warming their occupants during cold nights, and still another, associated with an altar or bench, appears to have been used for ceremonial purposes.

Thirty-five of the 40 hearths attributable to the Classic were found in the interior of the palace; six more were outside (Folan et al. 1989). During the Terminal Classic period, two hearths contin-

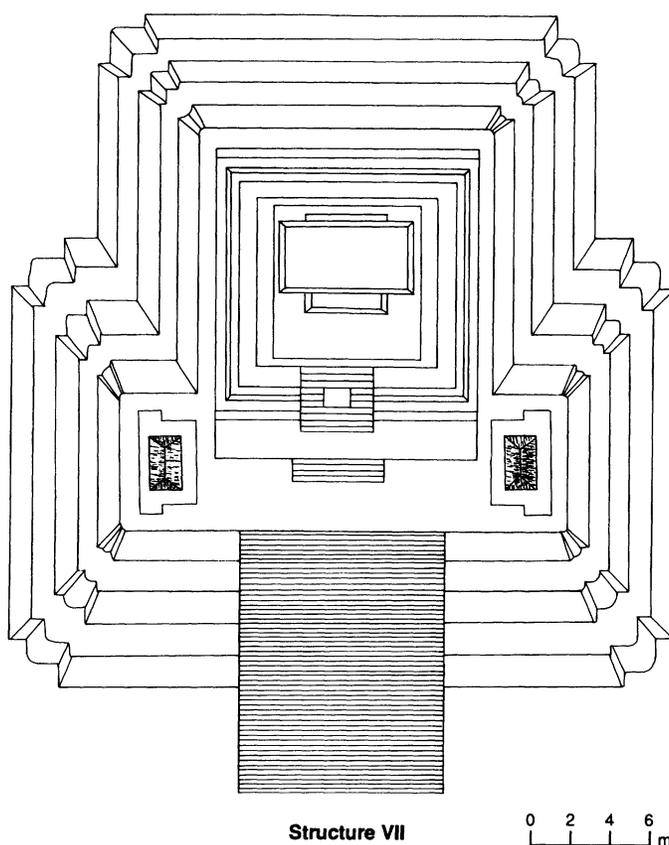


Figure 7. Structure VII at Calakmul is a Late Classic temple on the north side of the Central Plaza at Calakmul. (Reconstruction by María del Rosario Domínguez C. and Aida Amine Casanova Rosado)

ued in use—an exterior hearth, more than 1 m in diameter, in front of the principal entrance (Room 2), and the interior hearth in the doorway leading to the ceremonial altar (Room 8).

In addition to the kitchens or cooking areas in the front rooms of the palace, one room (Room 7) was a sweatbath. There were also sleeping benches (Rooms 1 and 6) and a ceremonial platform with niches (Room 8). The well-designed sweatbath in Room 7 included a single stone slab used to close its small entryway. Room 8, the rear room in the center of the building, featured an elevated platform with niches; it was apparently used for a ceremony involving chert knives.

At the end of the Late Classic period, access to the building was restricted, three Classic period tombs were emptied, and a new burial and altar were installed. The new burial, of Terminal Classic date, was placed on the south side of Room 5 at a depth of .5 m below the plaster floor.

It consisted of an adult male lying on his back, with his head toward the east and a broken metate fragment covering his skull (Coyoc Ramírez 1989a, 1989b; Pincemin 1989a, 1994). The individual's skeleton was properly articulated, and his feet were present, although the long bones of the lower legs were missing. Three of his teeth revealed incisions. Among the burial goods were a bone needle, a bone imitation of a stingray spine, and a small round stone. Two vessels, a *tecomate* inside a dish, were found. The dish, with a diameter of 20.5 cm, is of Fine Orange ware similar to the Terminal Classic Provincia Planorelief (Ball 1977:101; Forsyth 1983:Figure 32gg; Smith 1971:Figure 9d); similar sherds are known from El Mirador in the Lac Na ceramic complex (Forsyth 1989:124, Figure 50g). The red *tecomate* is similar to Tinaja Red (Adams 1971:23; Pincemin 1989b; Sabloff 1975:168; Smith 1955). Inside the *tecomate* were a cord covered with red

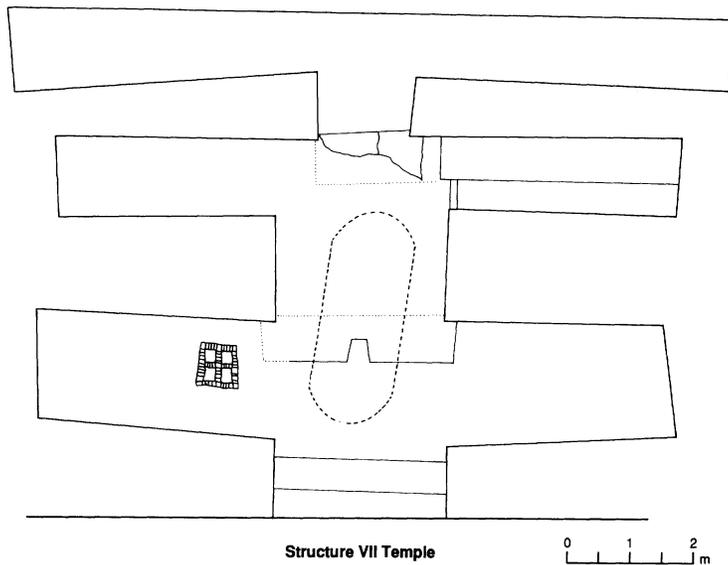


Figure 8. Structure VII at Calakmul is a Late Classic temple whose outermost room displays an incised *patolli* (“game board” for divination). To the east of the *patolli* are a Late Classic tomb (indicated by dashed lines) and a Río Bec style altar with niche. (Redrawn from María del Rosario Domínguez C. and M. J. Gallegos G.)

pigment and the remains of a cloth bag containing bone fragments and ashes.

Structure VII

Structure VII is an impressive public building located at the northern limit of the Central Plaza. The 24-m-high building displays several construction phases that span Late Preclassic to Terminal Classic times, and it is crowned with a three-room Late Classic temple that once featured a tall stuccoed roof comb (Figure 7). The temple floor plan (Figure 8) is similar to those of temples at Uxul, Naachtún, and Tikal (Coe 1967; Ruppert and Denison 1943).

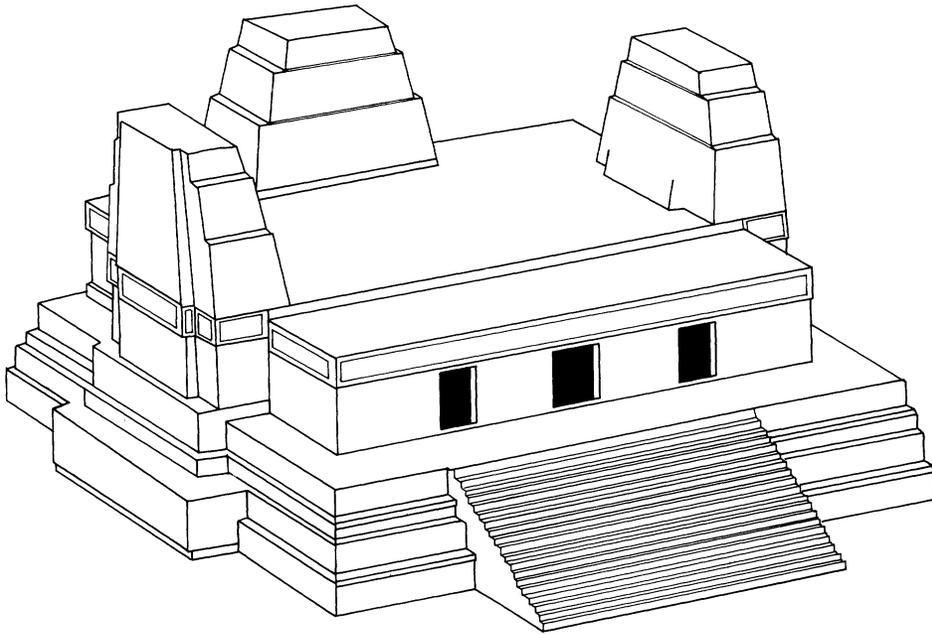
Incised on the plaster floor of the first (or outermost) room of the temple is a *patolli* game board (Figure 8). Depictions of *patolli* are found in Mixtec and Aztec Postclassic codices, and at Maya sites, including Becán, Xunantunich, Nakum, Tikal, Palenque, Seibal, Dzibilchaltún, and Uxmal. The Structure VII *patolli* at Calakmul is divided into quadrants, with a layout very similar to those known from Tikal, Seibal, and other Petén sites.

Below the plaster floor of the central passageway of the Structure VII temple we discovered a Late Classic vaulted tomb, intrusive into the structure (Domínguez Carrasco and Gallegos Gómora

1989–1990). Dated to ca. A.D. 750, the tomb is 3.38 m long, 1.35 m wide, and 1.65 m high on average. The tomb occupant was a male, 25 to 35 years old and 1.6 m tall (Lagunas R. 1985, personal communication 1984). His limb bones reveal deep cut marks suggesting that his flesh had been removed before final interment (Coyoc Ramírez 1985), and also Harris lines, which indicate that his growth had been interrupted during his youth.

Because some bones were missing, and those present were not all in anatomically correct position, the burial appears to have been secondary. The remains were wrapped in cloth, after being defleshed, then rolled up in a mat, exposed to fire, and interred as a funerary bundle. The bundle was then placed on top of a “bed” of seeds in the tomb (Domínguez Carrasco and Gallegos Gómora 1989–1990). The seeds have been identified as *Metopium brownei* (a species of *che chem* [poisonwood]) and *Bursera* spp. (*chaka*’ [gumbolimbo, Indio desnudo]) (Xelhuantzi 1986).

Also associated with the funerary bundle were fragments of a jaguar skull, its claws, and part of its tail (identified by Mauricio Enseñat) that were probably still attached to a pelt. The evidence suggests that the deceased was buried with his jaguar cape or cloak, a garment often worn by male nobles



Structure III

Figure 9. Reconstruction drawing of Structure III at Calakmul. (Drawing by Luis Fernando Alvarez Aguilar)

and Maya rulers (see, for example, the Bonampak murals [Ruppert et al. 1955:Figures 27–29]).

This unusually rich Structure VII tomb featured 2,147 pieces of worked jadeite, more than 1,000 of which are beads. There is also a life-size jadeite mosaic mask with obsidian pupils, pyrite eyebrows, and an elaborate jadeite headdress found on the floor of the tomb. Also accompanying the deceased were four large jadeite ear plugs, a jade ring, an *ik*-shaped jade plaque, and two lip plugs carved with glyphs, one of which includes a possible day sign with the prefix 9. In addition, there were shells, a badly decomposed pearl, and six obsidian blades.

In the tomb were 10 Late Classic vessels of Tepeu 2 date (Domínguez Carrasco 1992b). Included were four Pedregal Modeled dishes on which the burial was placed; one Infierno Black dish; one small Botifela Orange flat-based bowl; one Cambio Unslipped vaso; two Infierno Black tripod vessels with straight sides; and one Carmelita Incised tripod cajete with a postfire scratched motif. Two of the vessels contained remains of resin from the *chaka'* tree (*Bursera simaruba*). An additional offering in front of the

tomb consisted of four eccentric flints and 58 obsidian lancets for possible bloodletting, items that may have been cached there following the associated funerary rites. A bench or altar with niche had also been constructed above the tomb, probably to receive offerings in memory of the deceased below. A number of incense burners and ash deposits found in the area support this suggestion.

Although the original layout of Structure VII was that of a temple, the building came to be used as a residence during the final stages of the Late Classic (Domínguez Carrasco 1992b). As we learn more about the modification and refurbishment of Calakmul's buildings, it makes terms such as "palace" and "residence" more difficult to apply for the entire duration of a structure's use.

Structure III ("The Lundell Palace")

Structure III at Calakmul, excavated by Alvarez Aguilar and Armijo Torres (1989–1990) was an imposing palace with three hollow roof combs and two large stucco facade masks (Figure 9). It may have been inhabited by as many as 20 to 30 people who carried out domestic activities within its 12 rooms and corridors (Figure 10). The pres-

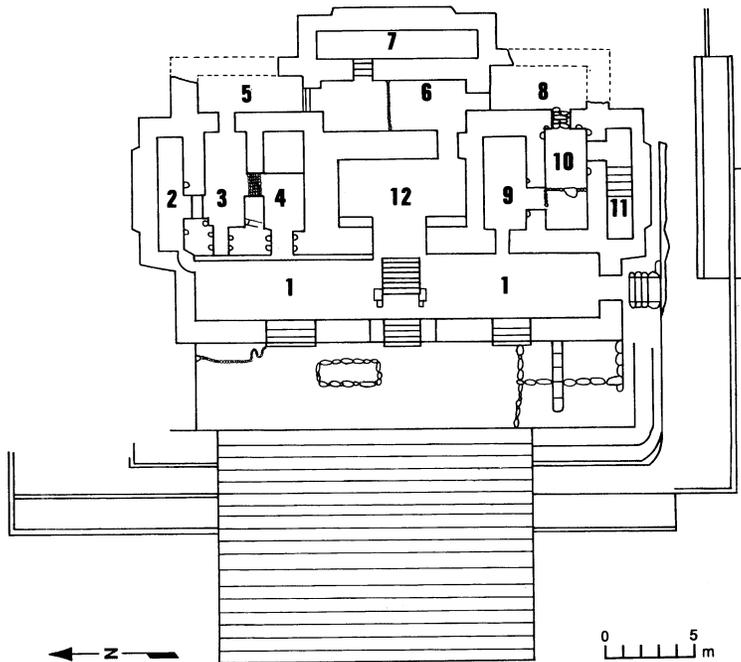


Figure 10. Structure III ("The Lundell Palace") at Calakmul. Early Classic Tomb 1 was found below Room 6. This plan is based in part on Ruppert and Denison's 1943 work.

ence of metates, cooking vessels, and hearths inside the rooms suggests that culinary activities took place there; chert-working was also evident from remains in Room 4 (Armijo Torres 1985).

Tomb 1, an elaborate Early Classic fifth-century A.D. interment found beneath Room 6, may contain the remains of an early ruler. Prior to our 1988 excavations, we had noted that the Room 6 floor had been raised to the point where it partially blocked three of the entryways to the room. Although the reason for this increase in floor height was not immediately evident, we suspected that the floor might have been raised after a burial had been placed below (Folan 1988). Excavation revealed the capstones of a tomb just a few centimeters below floor level. Subsequent exploration by Coyoc Ramirez (1989a) and Pincemin (1989a) revealed a chamber 3.6 m long, 1.5 m wide, and 4.6 m high, oriented north-south. In the northwest corner of the tomb was a rectangular, tunnel-like duct (35 x 25 cm), which opened at floor level (Figure 11). This 9-m-long "psychoduct" led to the outside on the north side of the building. Although the tomb masonry was of good quality, the stucco facing had been crudely smoothed by

individuals who evidently worked rapidly with their bare hands (Pincemin 1994).

The tomb contained a male at least 30 years of age, lying fully extended on his back on a woven mat (Coyoc Ramirez 1989a), his right arm crossing his chest (Pincemin 1994). As was the case with the tomb in Structure VII, the deceased had been subjected to various rites, including the application of red pigment (evidently cinnabar), with which the skeleton, the mat, and various textile fragments were all impregnated. The wrapped body was placed on top of five dishes that served as a "bed," much like that in the Structure VII burial. A cloth adorned with hundreds of shells arranged to form designs had been placed near the deceased, along with other shells carved to represent human skulls.

The most spectacular offerings in this tomb were three jade mosaic masks—one originally for the man's face (made up of 170 individual pieces of jade), another on his chest (made up of 125 pieces), and the third for his belt (made up of 92 pieces). Similar jade mosaic masks occur in Classic tombs at other Maya cities. For example, a Late Classic mosaic mask was found in the

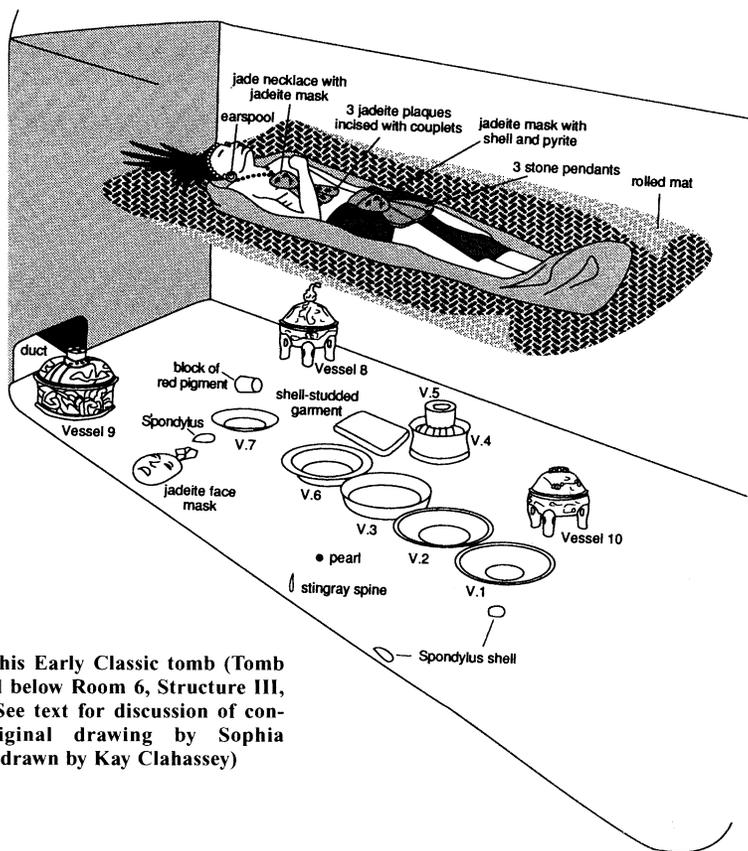


Figure 11. This Early Classic tomb (Tomb 1) was found below Room 6, Structure III, Calakmul. (See text for discussion of contents.) (Original drawing by Sophia Pincemin; redrawn by Kay Clahasse)

famous tomb in the Temple of the Inscriptions, Palenque (Rands 1965:Figure 18). At Tikal, a mosaic mask was found with Burial 160, which dates to ca. A.D. 527 (Rands 1965:Figure 19). At El Portón in the Salamá Valley, a miniature jade mosaic mask was found in a Terminal Preclassic cache (Sharer and Sedat 1987:Figure 3.21). Other mosaic masks are known from Oxkintok (García B. 1992), Uaxactún (Smith 1950), Lamanai (Pendegast 1981:35, Figure 6), and Altun Ha (Pendegast 1979:50, Plate 10).

The Calakmul mask, located to the west of the skull on the tomb floor, is embellished with shell eyes, lips, and teeth, has holes drilled into its border for securing it to the occupant's face during life, and is provided with stucco backing. The chest mask probably depicts a long-fanged jaguar with an inscribed disk in its mouth. Hanging from this mask are three jade plaques incised with hieroglyphs. The belt mask, also found on the tomb floor just to the deceased's right, is adorned with three

plain stone pendants that were probably intended to give off sounds as they clinked together. Also found with the burial were three pairs of jade earplugs, one with pyrite mosaics over shell; a jade ring; 32 jade beads, plain and carved; 8,252 shell beads; several large *Spondylus* and *Oliva* shells; a stingray spine; and a block of red pigment.

The 10 funerary ceramics included five (Vessels 1, 2, 3, 6, and 7) simple, flat-bottomed orange dishes, arranged in a line to serve as a bed for the deceased, which can be classified as Aguila Orange (Pincemin 1994; Smith 1955:77; Smith and Gifford 1966:171).

Vessel 8 (Figure 12) is a more complex, shiny black tetrapod with a lid that can be classified as Urita Gouged-Incised of the Balanza Ceramic Group. Vessel 8's handle is a three-dimensional human head with prominent noseplug, an elaborate bird headdress, a necklace of large beads, and a large shell(?) pendant. At the back of the effigy head's neck is a large knot of cloth that served as

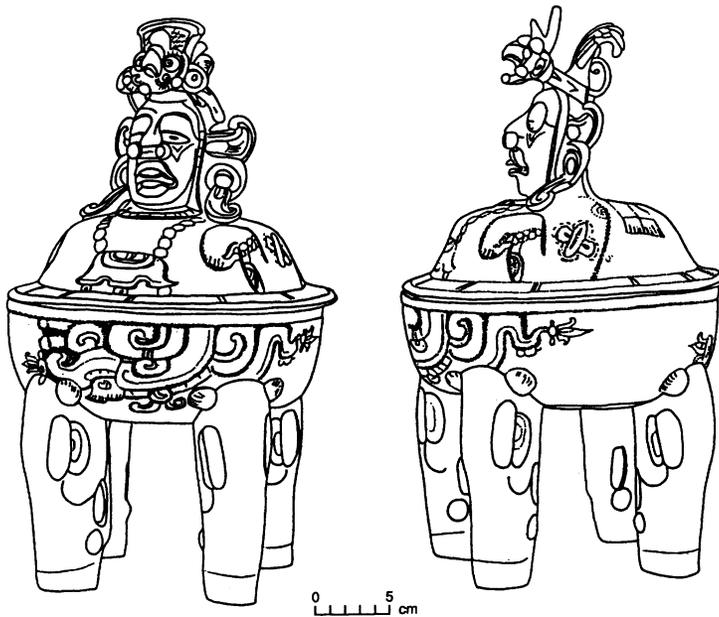


Figure 12. Vessel 8, Tomb 1, Structure III, Calakmul. (Drawing by Sophia Pincemin)

a counterweight to the heavy necklace. The figure's arms are held up, curled at his sides (Pincemin 1989b); on his shoulders are crossed elements and other body markings that associate him with death or apotheosis. On the lower half of the vessel are two stylized serpents of the kind associated with Maya rituals of apotheosis. The serpents are similar to those shown conjured up on some Early Classic stelae, and in whose mouth we sometimes see the bust of a deceased ancestor. Appropriately enough, on this Calakmul vessel we see the bust of a presumably deceased human who appears above the serpent. The vessel's legs are four apparent tapir heads, their ears modeled in the area where the leg meets the bowl base. Although Vessel 8 is Early Classic in date, the practice of depicting the head of a deceased lord as a handle on a vessel lid continues among the Maya, and is well known from Late Classic tombs such as Burials 116 and 196 at Tikal (Coe 1967).

East of the deceased were two more vessels, one inside the other. Vessel 4, a shiny Balanza Black circular dish with a ring base and pouring spout similar to a vessel from Becán (Ball 1977:Figure 12u), contained Vessel 5, a large black cup that can be classified as Lucha Incised of the Balanza Ceramic Group. It has a hollow pedestal base,

somewhat similar to examples from Tikal (Laporte 1989:Figure 102, forma 45; Pincemin 1994).

Vessel 9 (Figure 13) is a large, polychrome basal-flanged bowl with lid (Yaloche Cream-polychrome) that was found in front of the duct in the northwest corner of the tomb. The lid handle is divided into red and gray quadrants, surrounded by a ring of four jaguar paw prints (Pincemin 1989b, 1994). The lid is divided into two registers, each containing a stylized serpent of the type already described for Vessel 8. Vessels 8 and 9 both appear to have contained food, possibly chocolate (*kakawa*), pozole (*koyem*), or atole (*za*) corn gruels. Little remains of Vessel 10, a brilliantly painted stuccoed tetrapod with legs in the shape of peccary heads. Collectively, the 10 vessels suggest that Tomb 1 and its occupant date to the fifth century A.D. because similar ceramics at Tikal occur in the Manik 2 phase, dated from A.D. 300 to 378 and to the beginning of the Manik 3 (A.D. 378–550) by Laporte (1989).

Suspended as a trio from the mask on the deceased's chest were three jade plaques incised with hieroglyphic couplets. The plaques are similar to the trio of plaques worn by the Early Classic ruler depicted on Calakmul's Stela 43. Similar trios of plaques are suspended from belt masks on

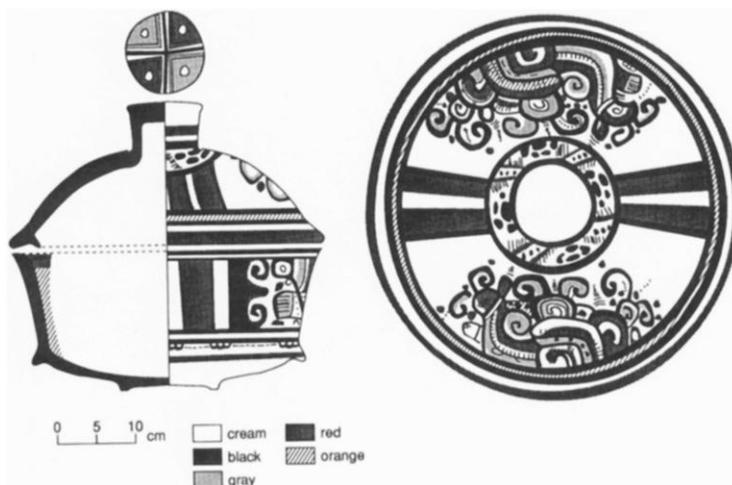


Figure 13. Vessel 9, Tomb 1, Structure III, Calakmul. (Drawing by Sophia Pincemin)

Tikal's Stela 31 and on the Leyden Plaque. In fact, the Leyden Plaque itself is an Early Classic pendant that was drilled for suspension.

Each Calakmul plaque also has a hole drilled into it, is 10 x 6 cm, and displays a couplet of incised glyphs surrounded by a cartouche (Figure 14). We discuss the glyphs only briefly here, because more detailed discussion will appear in a separate study of the Calakmul inscriptions (Marcus 1987b). What is perhaps most interesting is that the text on Plaque I seems to label the plaque itself, and the text on Plaque III seems to give the name and title of an individual, perhaps the tomb's occupant.

Plaque I (hole for suspension at top)

Glyph 1: Prefix may be read as *y(a)*; main sign may be the logograph *akbal*, "night," which might be pronounced *ak'*; suffix might be pronounced *i*. *Yaki* means "his tongue" or "the tongue of." (An alternate reading would be *ak'an* "was seated, was placed.")

Glyph 2: Prefix might be variant of *na* or *xa*; main sign might be variant of *ek*, "black," or even *ul (u)*. Sign might be pronounced *na + ek = nak*, "mask."

Glyphs 1 and 2 may label the plaque itself, calling it "the tongue of the mask." This label seems appropriate, given the shape of the plaque, the fact that it hangs down from the mask, and the fact that it would have clinked against the other

plaques, making noise that might have been interpreted as "speaking."

Plaque II (hole for suspension at bottom; couplet would hang upside down)

Glyph 3: Hand as "completion" or "end" (*lah*), followed by *k'al* ("moon goddess"), *ah*, *ha*, or *na*; suffix may be *an* or *hi* (Bricker 1986). Might mean "it became," "it arrived," or "completion of the moon."

Glyph 4: Main sign is a possible variant of *em*, "to descend"; suffix, *hi* or *an*; *em + i* or *em'an* = "he, she, it descended." (Alternate readings might be *chum(wa)an*, "inaugurated" or *ch'uyan*, "suspended as a pendant.")

Glyphs 3 and 4 may state that "the moon has ended, the moon has descended." The *Vienna Dictionary* (Roys 1944) includes an entry that indicates the Maya believed that the waning moon descended into a well; such a belief might be expressed in this couplet. However, the subject may be the plaque itself, and the couplet may mean "was completed, was suspended."

Plaque III (hole for suspension at top)

Glyph 5: Lord's name is given as "superfix + long snout + jawbone + postfix."

Glyph 6: Variant of sky glyph with "mirror infix," *chan + n(a)*; this title follows the lord's name.

Glyphs 5 + 6 (name + title) might refer to the occupant of Tomb 1.

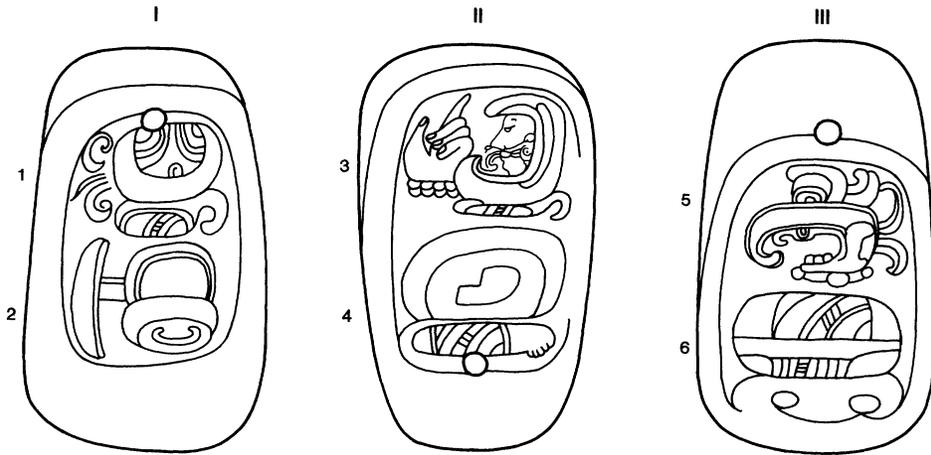


Figure 14. These three jade plaques with hieroglyphic couplets were suspended from a mask worn by the male buried in Tomb 1, Structure III, Calakmul. Each plaque measures ca. 10 x 6 cm. (Original drawing by Sophia Pincemin; redrawn by John Klausmeyer)

On stylistic grounds the three jade plaques from Calakmul are similar to, and probably broadly contemporaneous with, several unprovenanced jade plaques found in Costa Rica (Marcus 1987b; Stone 1972). One significant difference is that the Costa Rican jades are often split in half and reworked. The incised hieroglyphic texts on the Costa Rican jades, however, are clearly the work of the lowland Maya. Jade plaques from Bagaces in the province of Guanacaste reveal similar “hieroglyphic pairs/couplets” in rounded cartouches; in fact, one jade fragment from the Taboga region of Guanacaste (Stone 1972:149) includes a glyph compound similar to Glyph 1 on Calakmul’s Plaque I (Marcus 1989). Unfortunately, in contrast to the plaques from Tomb 1 of Calakmul, the context and provenience of most Costa Rican plaques have been lost forever.

Calakmul’s Rulers and Their Political Connections

One goal of our project is to determine the degree of fit between Calakmul’s hieroglyphic texts and our accumulating archaeological evidence. At sites such as Tikal and Copán, where many texts are well-preserved and legible, progress has been made in determining goodness of fit or lack of fit (Coggins 1975; Fash 1991; Fash and Sharer 1989; Haviland 1991; Jones and Satterthwaite 1982).

Unfortunately, our efforts to compare epigraphic and archaeological data at Calakmul have been hampered by the lack of monuments for some periods, the poor preservation of many texts, and the partial and discontinuous sequence of rulers.

Late Preclassic

Although the Late Preclassic was a period when Calakmul’s leaders commanded a labor force sufficient for the construction of huge pyramids such as Structure II, we have no stelae from this period.

Early Classic

The occupant of Tomb 1, Structure III, may have been one of the earlier Calakmul rulers; given the tomb’s location within a major structure near the Central Plaza, and the richness of its contents, this suggestion seems plausible. Although his name seems to be given on Plaque III, it is not mentioned by later rulers. If the individual was a ruler and if he commissioned any monuments, they may yet be found; the other possibility is that his stela(e) were destroyed by later rulers (Marcus 1987a, 1987b, 1989).

One of our current concerns is to determine the number of years that separated the occupant of Tomb 1 and the ruler who erected Stela 114 in A.D. 431 (Marcus and Folan 1994). The Calakmul ruler depicted on Stela 114 would have been a contemporary of Tikal’s Stormy Sky and

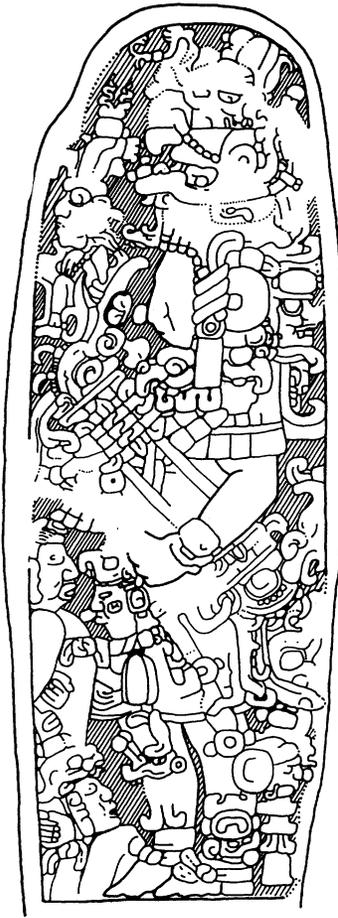


Figure 15. Front of Stela 43, Calakmul, erected in A.D. 514. Height is 3.2 m. (Redrawn by Kay Clahassey from John Klausmeyer's original drawing)

Copán's Yax Kuk Mo'. The discovery of Stela 114 (8.19.15.12.13) increases the total number of sites known to have Cycle 8 stelae (Marcus 1995). At present Calakmul is the most northerly site with a Cycle 8 stela, the honor Balakbal formerly held. Balakbal's Stela 5 (A.D. 406), nevertheless, was dedicated 25 years before Calakmul's Stela 114 (Marcus and Folan 1994). Later Balakbal became one of the secondary centers within Calakmul's political realm. Cycle 8 stelae are rare, and it is still the case that most of those known were erected at Tikal and Uaxactún (Marcus 1976:31–43; Morley 1937–1938; Schele and Freidel 1990).

The next Calakmul stela (No. 43) was dedicated in A.D. 514, after an unexplained gap of 83 years

(Marcus 1987a:69). Stela 43 supplies the name of still another Early Classic ruler (Figures 15 and 16), who would have been a contemporary of Tikal's Lord Jaguar Paw-Skull (ca. A.D. 488–504) and his successor (A.D. 504–537) as well as Copán's ruler Waterlily Jaguar (A.D. 504–544).

Calakmul's importance during the Early Classic is also reflected in the number of sites outside its realm that mention their relationship with Calakmul at this time. Lintel 35 of Yaxchilán mentions Calakmul as a participant in a rite that took place in A.D. 537. A lord of Naranjo mentions Calakmul ca. A.D. 546–556, and for a short time he seems to regard Calakmul as an ally. Stela 3 at Caracol mentions Calakmul as a military ally, as the result of a rite that took place in A.D. 619. When Calakmul's alliance with Naranjo collapsed, Caracol fought with Naranjo, evidently with Calakmul's cooperation (Marcus and Folan 1994; Proskouriakoff 1993; Schele and Freidel 1990). These are additional cases in which the mention of one site's emblem glyph by another has been crucial in establishing regional hierarchies, documenting military alliances, showing participation in various rites, and highlighting intersite royal marriages (Berlin 1958; Marcus 1976, 1983, 1988, 1992, 1993; Proskouriakoff 1993; Schele and Freidel 1990).

To evaluate the veracity of claims made by the lords of Calakmul, Caracol, Naranjo, and other sites, we of course will need independent verification from dirt archaeology (Marcus 1992:445). Nevertheless, a tentative pattern seems to have emerged from the various intersite mentionings of Calakmul and its contemporaries: any enemy, or potential enemy, of Tikal's was a potential friend of Calakmul's. It appears that Calakmul would support any lord willing to turn against Tikal and hence diminish its sphere of influence. In some decades, Calakmul seems to have been Tikal's arch rival and bent on expansion; in other decades, Calakmul seems to have been more passive and less expansionist (Marcus 1988; Marcus and Folan 1994).

Late Classic

In contrast to its limited Early Classic output, Calakmul expended considerable effort in carving stelae during the Late Classic (Figures 17 and 18).

At least 100 of Calakmul's monuments can be assigned to this period, and 40 of those can be placed in the century between A.D. 652 and 752. No other Maya site erected as many stelae during that 100-year period. This was probably the heyday of Calakmul, when it functioned as the capital of a large regional state that was politically on a par with Tikal. Indeed, Calakmul seems to have been more bent on expansion and determined to maintain a larger regional state than Tikal did (Marcus 1988). Of all the emblem glyphs known, those of Calakmul and Tikal are the two most frequently mentioned by sites outside their realms (Marcus 1976; Marcus and Folan 1994). The frequency with which the Calakmul and Tikal emblem glyphs were mentioned by other sites constitutes one of the many criteria which show that both these large cities functioned as regional capitals during the Late Classic (Adams and Jones 1981; Adams and Smith 1981; Bove 1981; Culbert 1990; Marcus 1973, 1976, 1992, 1993; Morley 1937–1938; Morley and Brainerd 1956; Morley, Brainerd, and Sharer 1983).

The Late Classic ascent of Calakmul began with the dedication of Stelae 28 and 29 in A.D. 623, following a 109-year hiatus in monument carving. We hope future work at Calakmul will either fill in or explain that hiatus, which might reflect a break in dynastic succession, the establishment of a new dynasty, or the rise of a usurper who destroyed and buried earlier rulers' monuments.

One of the more famous Late Classic rulers at Calakmul was Jaguar Paw; we learn of him from monuments at Calakmul, El Perú, and Dos Pilas (Marcus 1987a). He was born on October 9, A.D. 649 (9.10.16.16.19 [3 Cauac 2 Ceh]), with his birth recorded on Stela 9 at Calakmul and on a looted monument believed to be from El Perú (Marcus and Folan 1994). His wife is depicted on the back of Stela 9. He is also the subject of the newly discovered Stela 115 at Calakmul.

Even before Jaguar Paw officially acceded to the throne, it appears that he had forged an alliance with Ruler 1 of Dos Pilas, and in a show of support the Dos Pilas lord attended Jaguar Paw's inauguration. Jaguar Paw acceded to the Calakmul throne on April 6, A.D. 686, and soon afterward his sister married a lord of El Perú. Because she left the regional capital (Calakmul) to marry into

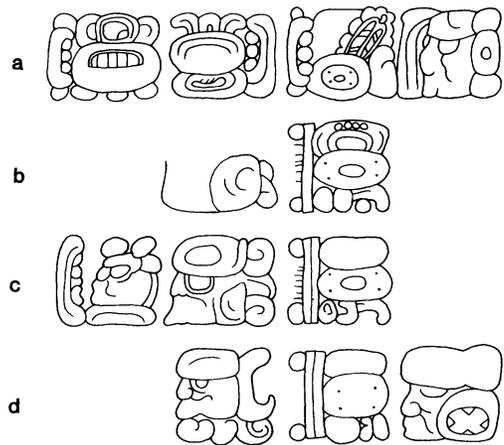


Figure 16. Name phrases of the ruler depicted on Stela 43 at Calakmul. The glyph blocks in row a are A9-B10; row b, D2-C3; row c, C7-C8; and row d, D12-D13. (Redrawn from Marcus 1987a:Figure 22)

the ruling family of a subordinate center, she was featured at El Perú on a stela that was paired with that of her husband. Those two stelae were dedicated in A.D. 692 (Marcus 1976:frontispiece, 1992:252–253; Miller 1974:Figure 2). This is one more case of Maya hypogamy, the marriage of a nobleman to a noblewoman of slightly higher status (Marcus 1992:250–255).

Dos Pilas serves as an example of a site, once under the hegemony of Tikal, that was probably encouraged by Calakmul to break away from Tikal. The Dos Pilas dynasty seems to have been founded by a subordinate lord from Tikal, who promptly borrowed Tikal's emblem glyph to use at Dos Pilas (Marcus 1974, 1988). The relationship between Dos Pilas and Tikal was competitive, with numerous claims of conflict recorded in the texts of Dos Pilas. The ongoing relationship between Tikal and Dos Pilas (and the possible catalytic role of Calakmul) is complex, and has been the subject of numerous studies (e.g., Coggins 1976:445–446; Houston and Mathews 1985; Marcus 1976:63–74; Proskouriakoff 1993:52–56; Schele and Freidel 1990:179–183).

Although Calakmul dedicated its final three stelae—Nos. 15, 16, and 64—in A.D. 810, we know that the city continued to be occupied and to serve as a regional capital for some time afterward (Marcus 1973, 1976, 1988, 1992, 1993). It is even possible that some of the badly eroded ste-

CUADRO CRONOLOGICO

CALENDARIO CRISTIANO G.M.T.	PERIODOS PRINCIPALES	CALAKMUL	UAXACTUN	TIKAL	EL MIRADOR	NAKBE	BECAN			
1550	PROTO-HISTORICO						?			
1450		CEHACHE								
1350	POSTCLASICO TARDIO						LOBO			
1250										
1150		HALIBE								
1050	POSTCLASICO TEMPRANO									
950				CABAN	POST-LACNA					
850	CLASICO TERMINAL		TEPEU 3	EZNAB			XCOCOM			
750		KU	TEPEU 2	IMIX	LAC NA	UUC	CHINTOK			
650	CLASICO TARDIO			TEPEU 1			IK		BEJUCO	
550		KAYNIKTE	TZAKOL		ACROPOLIS	UAC	SABUCAN			
450	CLASICO TEMPRANO						MANIK			
350										CHACSIK
250										
150	PROTOCLASICO	TAKAN	CHICANEL		PAIXBANCITO	HO				
50						CIMI				
50					CASCABEL	KAN	PAKLUUM			
150	PRECLASICO TARDIO			CAUAC						
250										
350				CHUEN		TRANSICION OX-KAN				
450			MAMOM							
550	PRECLASICO MEDIO	ZIHNAL		TZEC	MONOS		ACACHEN			
650										
750					?					
850		?		EB		OX ?				

Dominguez C. (1994)

Figure 17. Chronology of Calakmul and other sites (Dominguez Carrasco 1994).

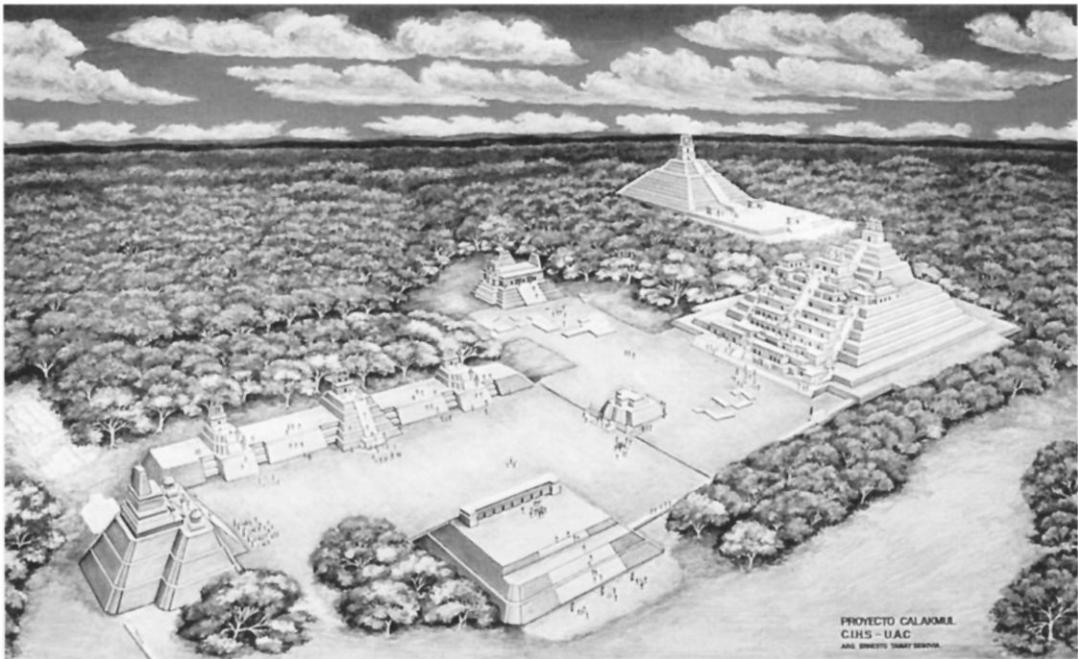


Figure 18. Reconstruction drawing of Calakmul, looking southeast, during the Terminal Classic period. Drawing by Ernesto Tamay Segovia. Photo by Eldon Leiter.

lae there, whose dates we cannot read, were carved after A.D. 810. At Calakmul we have found some Terminal Classic remains as well as a few Early, Middle, and Late Postclassic pottery vessels, metates, and hearths. Ironically, however, the last epigraphic reference to Calakmul is not at Calakmul itself, but on Stela 10 at Seibal, which was dedicated in A.D. 849 (Marcus 1973:Figure 3, 1983:466).

Conclusions

The Calakmul area first came into prominence during the Late Preclassic when both it and El Mirador were very large civic-ceremonial centers. It seems likely that future work will turn up evidence for additional substantial Middle Preclassic structures—perhaps within Structure II at Calakmul or El Tigre at El Mirador—but more work is needed to confirm this. Other Late Preclassic sites whose ceramics link them to Calakmul include Tikal, Uaxactún, and Nakbe. A probable turning point in Calakmul's history was the demise of nearby El Mirador, a process that may have removed one rival from the region and

allowed Calakmul to grow into a potential rival for Tikal, or vice versa.

By the Early Classic, Calakmul had emerged as a powerful city in its region. The fact that nearby Balakbal erected a stela in A.D. 406 suggests that Calakmul may also have erected monuments at that time. One Early Classic ruler may be the occupant of Tomb 1 in Structure III; his name may be recorded on a jade plaque buried with him. Another early ruler was honored in A.D. 431 on Stela 114. By A.D. 500–600, Calakmul was engaged in political machinations with more distant cities. One of its major roles during this period seems to have been to serve as a thorn in Tikal's side; the hieroglyphic texts of other cities suggest that Calakmul was an ally in their attempts to break away from Tikal's hegemony. Other centers that mentioned Calakmul at this time include Yaxchilán, Caracol, and Naranjo. However, although we are able to sketch Early Classic developments, the period will remain a focus of our research because we know less about it than about other periods.

During the Late Classic, Calakmul became one

of the four or five highly important capitals of the lowland Maya region, and brought sites such as Balakbal, Naachtún, and La Muñeca within its central place hierarchy (Marcus 1993). By this time Calakmul had an urban area with a greater density of structures per km² than that of Tikal, and it served as the capital of a regional state covering at least 8,000 km². When our settlement pattern survey reaches Calakmul's secondary centers—sites such as Oxpemul, La Muñeca, Sasilhá, and Naachtún—we will be in a position to estimate the number of subjects within the Calakmul polity. We would not be surprised by an estimate on the order of 425,000 persons, the figure recently provided for the minimal Tikal state (Culbert et al. 1990:117).

Our recent surveys reveal many secondary and tertiary centers around Calakmul. All of these lower-order centers have *aguadas*, springs, or other sources of water of various capacities, and many have stelae (Avila Chi and Folan 1990; Folan et al. 1990). Marcus's (1973) territorial model of large regional states, in which Late Classic Calakmul was a capital at the center of a hexagonal lattice of secondary centers, continues to account for much more of our newly collected data than does any other model. Our new inventory of sites, stelae, and *aguadas* in the Calakmul region provides increasing evidence that we are dealing with a large, multilevel regional state rather than lots of tiny polities (Avila Chi and Folan 1990; Folan 1992; Folan et al. 1990; Folan et al. 1995).

Finally, what do we know about the eventual demise of Calakmul? The city's last datable stelae were dedicated in A.D. 810, but stelae were still being carved at some of its dependencies long after that—for example, at Oxpemul (A.D. 830) and Xamantún (A.D. 889). In addition, at least five stelae at Calakmul have been "style-dated" by Proskouriakoff (1950) to decades after A.D. 810. Calakmul's situation is therefore somewhat analogous to that of Tikal, another capital whose dependencies of Jimbal and Uaxactún were still putting up stelae in A.D. 889, 20 years after the last dated stela at Tikal itself. Whatever the case, it appears that Calakmul and some sites within its realm were occupied for as long as other regional capitals such as Seibal (Marcus 1974, 1976, 1983).

Although political and economic factors were

undoubtedly involved in the decline of Calakmul, its demise may have been accelerated by an extreme local drought around A.D. 850 (Gunn et al. 1994, 1995). The city was not simply abandoned, because Calakmul has yielded some of the same Fine Gray ceramics interpreted elsewhere (e.g., Seibal) as evidence for a Terminal Classic intrusion of Putún or Chontal Maya (Sabloff 1975:239). Unlike Seibal, however, Calakmul has produced no stelae depicting Chontal immigrants. As our excavations and surveys continue, we fully expect to accumulate more data on the Terminal Classic and the decline of this expansionist regional capital.

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