REPORTS

A DYNASTIC TOMB FROM CAMPECHE, MEXICO: NEW EVIDENCE ON JAGUAR PAW, A RULER OF CALAKMUL

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This paper reports the recent discovery of a royal tomb in Calakmul, Campeche, Mexico. Buried in this chamber was an adult male. Among the abundant offerings that accompanied this personage was a polychrome plate bearing the heiroglyph, Yukom Yich'ak K'ak' (Jaguar Paw), the name of the governor of Cakalmul during the second half of the seventh century. Previously, it was believed that Jaguar Paw was captured and sacrificed at Tikal in 695 A.D. However, new data suggest that this recently discovered tomb at Calakmul was his final resting place.

En este artículo presentamos los resultados del descubrimiento reciente de una tumba real en Calakmul, que se ubica en el estado de Campeche, México. Un hombre adulto fue enterrado en esta cámara. Entre las abundantes ofrendas que acompañaban al personaje encontramos un plato polícromo que presenta los glifos de la frase nominal de Yukom Yich'ak K'ak' (Garra de Jaguar), nombre del gobernante de Calakmul durante la segunda mitad del siglo séptimo. Esta nueva evidencia arqueológica se opone a interpretaciones anteriores que asientan que Garra de Jaguar fue capturado y sacrificado en Tikal en 695 d.C.

The archaeological site of Calakmul in south-western Campeche, Mexico, is one of the most spectacular, yet least well-known Classic-period centers of the southern Maya Lowlands (Figure 1). This Maya center is situated 35 km from the Mexico-Guatemala frontier. Although poorly known, Calakmul has been in the literature for much of this century (Carrasco et al. 1996). The site was first visited in 1931 by the explorer and botanist Cyrus Longworth Lundell. In 1932, the Carnegie Institution of Washington organized an expedition to the site, headed by Sylvanus G. Morley. The Carnegie team made a detailed study of Calakmul's sculpted monuments and registered the legible dates of many of Calakmul's numerous stelae. In 1933, the Dirección de Monumentos Prehispánicos in Mexico commissioned its southern delegate, Enrique Juan Palacios, to inspect the site. Palacios wrote a brief report describing Calakmul as one of the greatest centers of Classic Maya culture. The following year another Carnegie expedition, headed by Karl Ruppert and John Dennison, produced a map of the Calakmul archaeological zone that is still used today.

On the basis of this early work, epigraphers began to consider the role of Calakmul in the culture history of the southern Maya Lowlands. Joyce Marcus (1976) first suggested that the Serpent Head glyph was the emblem of Calakmul and that the site was one of various "regional capitals" dur-

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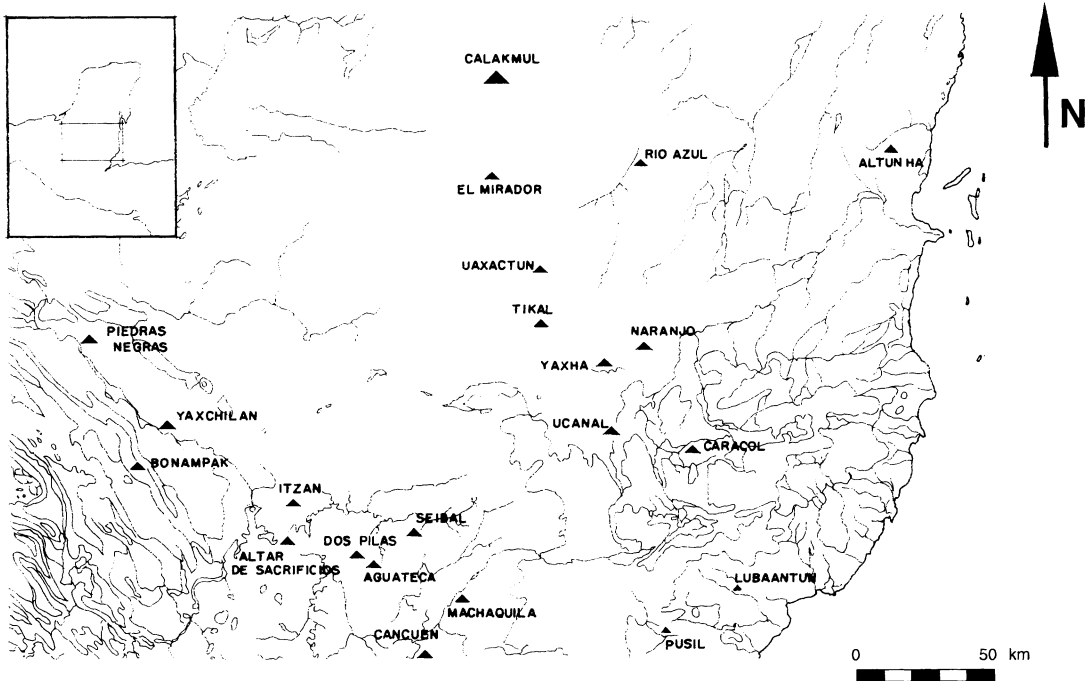
Figure 1. The location of Calakmul in the southern Maya Lowlands.

ing the Classic period. More recent studies of Calakmul's inscriptions led Simon Martin and Nikolai Grube (1994, 1995) to propose instead that the political organization of the southern Maya Lowlands was based on two main centers: Calakmul and Tikal. Regardless of the number of political capitals that may have operated in the region, both of these epigraphic studies (as well as the initial, descriptive work cited above) point to the importance of Calakmul in the Late Classic.

Other, more archaeologically focused projects at Calakmul aimed to record and describe the site's structures and monuments. Around 1975, an expedition was organized under the direction of the ex-Centro Regional del Sureste of the Instituto Nacional de Antropología e Historia (INAH). For this project, Eric von Euw was in charge of registering and drawing (for the Corpus of Maya Inscriptions of the Peabody Museum) those sculpted monuments that still retained epigraphic information (see Carrasco et al. 1996). In 1981, Peter Schmidt was commissioned by INAH to carry out the first delimitation of the archaeological zone. In 1982, the Calakmul Project of the Universidad Autónoma de Campeche was initiated.

The results of this project, directed by William Folan, include the first analysis and map of the site's settlement pattern. Folan, who directed the first archaeological restorations at the site, describes his ongoing work in a series of reports (Folan 1982, 1988, 1992).

The Archaeological Project of the Calakmul Biosphere, under the direction of Ramón Carrasco Vargas of INAH, was implemented in 1993. The main goals of this ongoing project include the restoration of certain buildings within the monumental area and a detailed consideration of architecture, ceramics, and urbanism, with the intent of using these independent kinds of data to evaluate some of the theoretical propositions regarding the site based on its inscriptions (Marcus 1976, 1987; Martin and Grube 1994, 1995). We also reevaluated glyphic texts related to this site. One of the major results of the project has been the discovery of a royal Late Classic tomb. Both archaeological and glyphic evidence suggest that this may be the final resting place of one of Calakmul's greatest rulers, named Yukom Yich'ak K'ak' in the heiroglyphic texts and commonly known as Jaguar Paw in epigraphic literature [1].

Yukom Yich'ak K'ak' and the Serpent Head Polity

The polity ruled by Jaguar Paw was one of the most important in the history of the Maya area. As noted above, Martin and Grube (1995:45) suggested that during the Classic period, the southern lowlands were politically organized in two macrostates that they call "superpowers." These two polities—centered at Tikal and Calakmul—may have been rivals since ancestral times.

Calakmul's domain was large; the wide distribution of its emblem glyph (a snake head sign) suggests the existence of allegiances with other urban centers, forming what has been called the Serpent Head polity (Martin 1996). During the Late Classic, under the rulership of Yukom Yich'ak K'ak', the Serpent Head polity centered at Calakmul apparently included the sites of El Perú, Dos Pilas, and Caracol.

Yukom Yich'ak' K'ak' is amply referred to in hieroglyphic texts of the central lowlands during the Late Classic. The texts suggest that this ruler was born on October 9, A.D. 649 (9.10.16.16.19 3 Cauac, 2 Ceh), and acceded the throne on April 6, A.D. 686 (9.12.13.17.7 6 Manik, 5 Zip).[2] According to Martin and Grube (Martin 1996; Martin and Grube, 1994, 1995), Lintel 3 from Temple 1 at Tikal records that Hasaw Chan K'awil captured and sacrificed Great Jaguar Paw on August 8, A.D. 695 (9.13.3.7.18 11 Etznab 11 Ch'en).

However, the inscription on one of the polychrome plates we found among the offerings of Tomb 4 at Cakalmul mentions the title and name of Yukom Yich'ak' K'ak'. David Stuart (1989) suggests that the presence of a vessel with name glyphs in a funerary context does not necessarily identify the person in the tomb, but we find this statement somewhat contradictory; in the same article, Stuart (1989:158) also states that "declarations of material ownership seem a pervasive trait of the Maya nobility." Therefore, at present we believe that the text on the plate naming Yukom Yich'ak K'ak' refers to the personage buried in Tomb 4. Other evidence from this interment (which we review in this paper) seems to support this identification.

A recent review of the texts related to the A.D. 695 war between Calakmul and Tikal (Carrasco et al. 1997) suggests that Yich'ak K'ak' was not taken captive by Hasaw Chan K'awil as several researchers (Martin and Grube 1995; Schele and Freidel 1990) have implied. New readings of Tikal's Lintel 3 (from Temple 1) and several inscriptions carved on bone artifacts recovered from Burial 116 at that site imply that, instead, the person captured at Calakmul probably was a *sahal* or war lieutenant of Yich'ak K'ak'. The Serpent Head polity evidently was defeated during this conflict. Possibly as a result of Calakmul's downfall, Tikal experienced a resurgence of regional power (Martin 1996). Nevertheless, Calakmul seems to have sustained diplomatic ties with some of its allies. Hieroglyphic evidence (Martin 1996; Schele and Freidel 1990) marks ritual events shared with Dos Pilas (in A.D. 702), El Perú (in A.D. 741), and Yaxchilán (at about this time).

Nevertheless, Late Classic conflicts intensified across the region; within the Serpent Head polity, the struggle for control of power is evident in the transformation and refurbishment of some of Calakmul's monumental constructions. In the end, due to the increasing influence of Tikal in the central Petén, the successors of Yich'ak K'ak' were reoriented toward the cultural traditions of northern Yucatán. These traditions are evident in the presence at Calakmul of elite ceramics and architectural features typical of the Río Bec region.

Structure II

Jaguar Paw's tomb (Tomb 4) was found in Structure II, which dominates the Great Plaza complex from the south and was positioned as the center of royal power (Figure 2). This impressive building was utilized to preserve the remains of several of Calakmul's Classic-period rulers. Its base measures approximately 150 m on each side, and it is about 44 m high.

Structure II (Figure 3) originally was constructed during the Late Preclassic (300 B.C.–A.D. 250). At that time, the stepped platform seems to have reached its current height. Recent excavations show that its shape and dimensions are similar to those of Structure I, with which it probably formed a twin-pyramid complex. In the following centuries, the north facade of Structure II was modified. During the Early Classic, monumental zoomorphic masks were added to both sides of the central stairway. At the bottom of these grand steps stands Stela 114, dated to 8.19.15.12.13, or A.D. 431 (Marcus and Folan 1994).

Figure 2. The monumental area of Calakmul.

Figure 3. Structure II.

During the Late Classic, some sections of the platform were partially renovated. In the same period, a vaulted front room with a large stairway was added. At the bottom of these stairs stand five stelae, all dated to 9.13.10.0.0 (A.D. 702). Another vaulted corridor was built at the front of the eastern stairway, and in its interior stood Stela 43, which dates to 9.4.0.0.0 (A.D. 548).
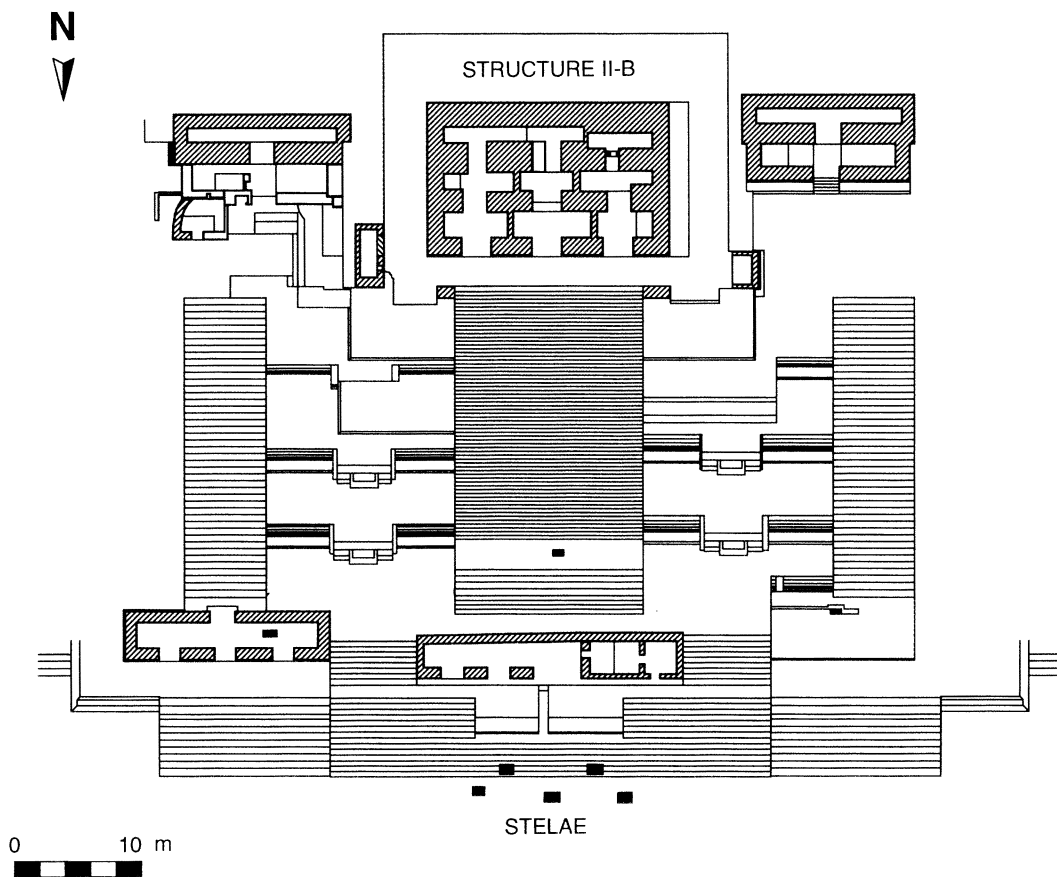
Figure 4. Ground plan of Structure II.

In the Early Classic, a central structure with three chambers was erected on the top esplanade of the pyramid (Figure 4). On each side of this building, a two-room structure was added, partially covering the Preclassic platform. These buildings then were used as funerary chambers for the elite during the Late Classic. During this period, some sections of the building were partially destroyed, and the frontal portion of the platform was elevated some 8 m. Structure II-B, with three corridors and nine rooms, was constructed on this new level.

To establish the architectural sequence of Structure II, an exploration pit was opened between the jambs of Structure II-B. This pit, measuring 4 m², was excavated to a depth of 7.31 m, where we found the floor and the door jambs to the back room of the Early Classic substructure. According to the architectural evidence, this substructure (II-B sub) consisted of three vaulted chambers, each 20 m in length. Toward the middle of the Late Classic, the interior of the building was refurbished; the

floors of the back rooms were broken to build funerary chambers for rulers of this period. Once occupied with a burial, each crypt was sealed with a new floor, and a fire ritual was carried out on top. Later, a step was built at the entrance of the second room with the purpose of hiding the tomb.

On the door jambs to these chambers we found some graffiti that must have been incised when the vault was demolished and the structure was buried beneath a new construction layer. One of these graffiti presents a partially destroyed Initial Series date. Following what seems to be the Initial Series Introductory Glyph are two numerals that read as 14.16. We reconstruct the date as 9?.14.16.?.? (circa A.D. 725). This date may correspond to the year when the Early Classic building was definitively sealed. This information, as well as the results of the ceramic analysis, suggest that Structure II-B sub was an Early Classic building that remained in use until the middle of the Late Classic.
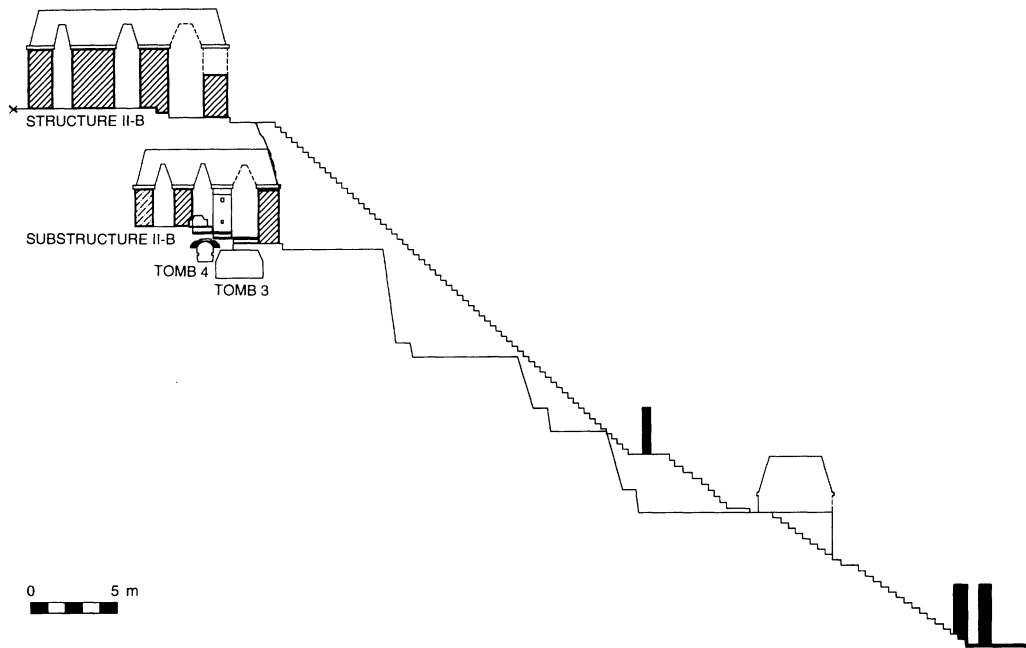
Figure 5. North-south section of Structure II.

During these excavations, we encountered two Early Classic funerary chambers (Figure 5). Although these chambers were desecrated in Prehispanic times, we were able to determine that a male child between six and eight years of age had been buried in one of them. This burial included an offering of four vessels: two dishes and a vase of the Aguila ceramic group, and a Teotihuacan-style black tripod cylinder of the Balanza group, all corresponding to the Early Classic (A.D. 250–600).

The Tomb and Its Contents

Tomb 4 (situated next to the child's burial described above) is located on the central axis of Structure II, with an east-west orientation (see Figure 5). This chamber is the most elaborate tomb found so far at Calakmul. It measures 2.5 m long, .9 m wide, and 1.2 m high. Its construction probably was conceived, planned, and designed during the lifetime of the deceased to be sealed after his death.

The design of the funerary precinct introduced new constructive elements. The traditional corbelled vault was replaced by curved vault panels that were covered with mud. These panels form an arch with a niche on the western side. A cornice divides the north and south walls into two panels. The upper panel, with bas-relief motifs, is divided in two sections. The top shows the remains of a red

glyph band, separated from the bottom section by a light green line. Unfortunately, the design of the bottom panel cannot be clearly read due to the collapse of the mud plaster finish of the ceiling and the disintegration of the walls of the tomb.

Osteological Analysis

When we began excavation, only segments of the skeleton (the legs and parts of the pelvic bones) were readily visible; the upper extremities were covered by offerings (described in the following subsection). Once the grave goods were cleared away, the skeletal remains were found relatively intact but mostly eroded and fragmented, due partly to the fall of construction material from the ceiling of the tomb and also to rodent activity, which particularly affected the lower extremities and the skull.

The original configuration of the deposition (Figure 6) is shown by the distribution of the skeletal parts, some of which have lost their anatomical relationships. Evidently, the deceased was buried in an extended position, lying on his back, with the right forearm crossed over the chest and the left forearm placed on the abdomen. We believe that the body was deposited on some type of litter made of wood, his head elevated with respect to the rest of the body. Considering the relationship between
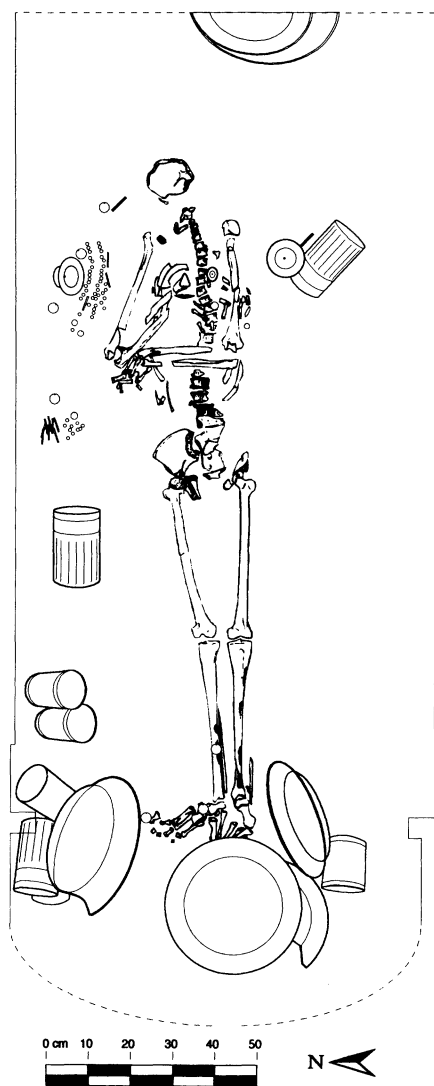
Figure 6. Ground Plan of Tomb 4.

following Romero 1986). Although head shaping is a common biocultural trait among the ancient Maya, the occipital bone does not exhibit any clear signs of artificial flattening. Pathological changes were observed in the spinal column, parts of which show marked osteophytosis and enthesophytosis (ossification of tendon insertions). At this stage, we are unable to offer a definite diagnosis to account for these changes.

Offerings

The body was accompanied by rich and elaborate offerings and the funerary paraphernalia typical of the rites necessary for the transition through Xibalbá, the Maya underworld (see Figure 6). The deceased was partially covered by cinnabar pigment, and the pelvic area was covered by two *Spondylus* shells. As already noted, the body was wrapped. The bundle involved elaborate techniques suggesting that a great deal of care went into preparing the remains.

The skeleton apparently was covered first with a textile shroud or cloth[3] and then with an animal skin. The preliminary results from the analysis of the organic remains found in contact with the bones indicate that the first layer of the funerary bundle consisted of fabric made of fibers derived from the stems of local plants. The cloth appears to have been completely impregnated with some sort of resin and then covered by a whitish material that could be latex. This material in turn was sealed with a resin layer. The complete penetration of the resin into the cloth suggests that it was applied in a liquid state. The same holds for the latex material that covered the impregnated fabric. This treatment contributed to its partial conservation, in much the same manner as a funerary bundle found in Tomb 1 of Structure XV, reported in 1994 (García and Schneider 1996a, 1996b).

The body was surrounded by a rich inventory of offerings and artifacts. Eight sets of paws (possibly feline) have been found in different locations. This arrangement is similar to that found at Burial 196 of Tikal (Hellmuth 1967:200). Artifacts include beads of bone, jadeite, and carved *Strombus* sp., mother of pearl shell that was fashioned to look like pearls, and *Spondylus* (spiny oyster) shells. We also uncovered fragments of jadeite mosaics and a pair of earplugs with glyphs incised in an earlier calligraphic style, suggesting that they may have been

the bones of the lower extremities, the cadaver must have been at least partly constricted by a material wrapping. This interpretation is supported by the detection of textile remains found in direct contact with the bones. We describe this burial bundle in greater detail below.

The results of preliminary macroscopic analysis indicate that the deceased was a robust adult male between 45 and 60 years of age at the time of death. The maximum living stature of the individual is estimated to be 164 cm, slightly taller than the established male average among the Prehispanic Maya. Three of the upper front teeth show inlays, two of which still hold jadeite (types E1 and E3,

Figure 7. Jadeite mosaic mask found in situ.

heirlooms (D. Stuart, personal communication 1997). Most of these objects formed part of the ruler's elaborate apparel. On each side of the skeleton was a cluster of tubular jadeite beads, perforated at each end. The location of the perforations suggests that the beads (along with the false pearls and shells) once formed bracelets; such jewelry is represented frequently in Classic Maya iconography.

One of the most spectacular offerings was a jadeite funerary mask, uncovered above the right side of the skeleton's chest (Figure 7). The mask is unique in terms of style and manufacturing techniques, with a very unusual inscribed plaster band on its lower margin. The central area consists of precisely fitting jadeite mosaic. The nose constitutes one single piece, and on the sides of the face are a pair of earplugs, also made of jadeite. The lips were sculpted in plaster and then painted. The front teeth were made from a white shell material. Four minuscule jadeite pieces were placed on top of the shell teeth. These tiny stones have flat bases, and their upper surfaces are rounded and polished. Their shape and position suggest that they once represented dental inlays, quite similar to the type of inlays possessed by the deceased.

The mask was covered with two layers of mortar, one of which is white and the other one brownish. The white layer is composed of calcium carbonate and gypsum; the brownish one contains gypsum and a yet unidentified clay. The materials used for these two layers were mixed with an unidentified organic substance. The results of a preliminary microchemical study suggest that the surface of the mortar was covered with polychrome decoration that was composed of various colors (yellow, green, red, and greenish blue). Different minerals were used for each paint color. The yellow pigment was obtained from ochre (limonite), the green color came from malachite, and the light green paint contained pigments that seem to have been a mixture of Maya Blue and malachite. All pigments were mixed with calcium carbonate. After the mask had been painted, it was inscribed on the lateral portions of the dewlap. The glyphic inscriptions were first incised and then filled with cinnabar.

Surrounding the mask were heterogeneous clusters of jadeite and *Spondylus* beads. These originally were sewn onto a cloth. Fragments of this fabric were recovered from the ground and from

Figure 8. Juleki Cream polychrome vase with Abbreviated Standard Sequence.

the perforated areas inside the beads. Other traces of cotton fibers were detected in analyses of soil samples taken in the area associated with the garment. The fibers, which appeared to have been stained blue, red, and black, are suggestive of embroidery. Finally, at the top of the body we found what we believe are remains of the ruler's headdress. Apparently this ornament was elaborated from some kind of palm material that was decorated and polychromed and appliquéd with jadeite mosaic.

The rich burial attire of the personage in Tomb 4 is complemented by an impressive ceramic inventory. Some of this pottery evidently contained perishable grave goods; vessels deposited at the deceased's head and feet were wrapped in an openweave cloth probably intended to protect their contents. Two of these dishes contained fragments of jade mosaics, basketry fibers, and other materials that have not yet been identified. The ceramics themselves constitute another category of exquisite offerings that we describe below.
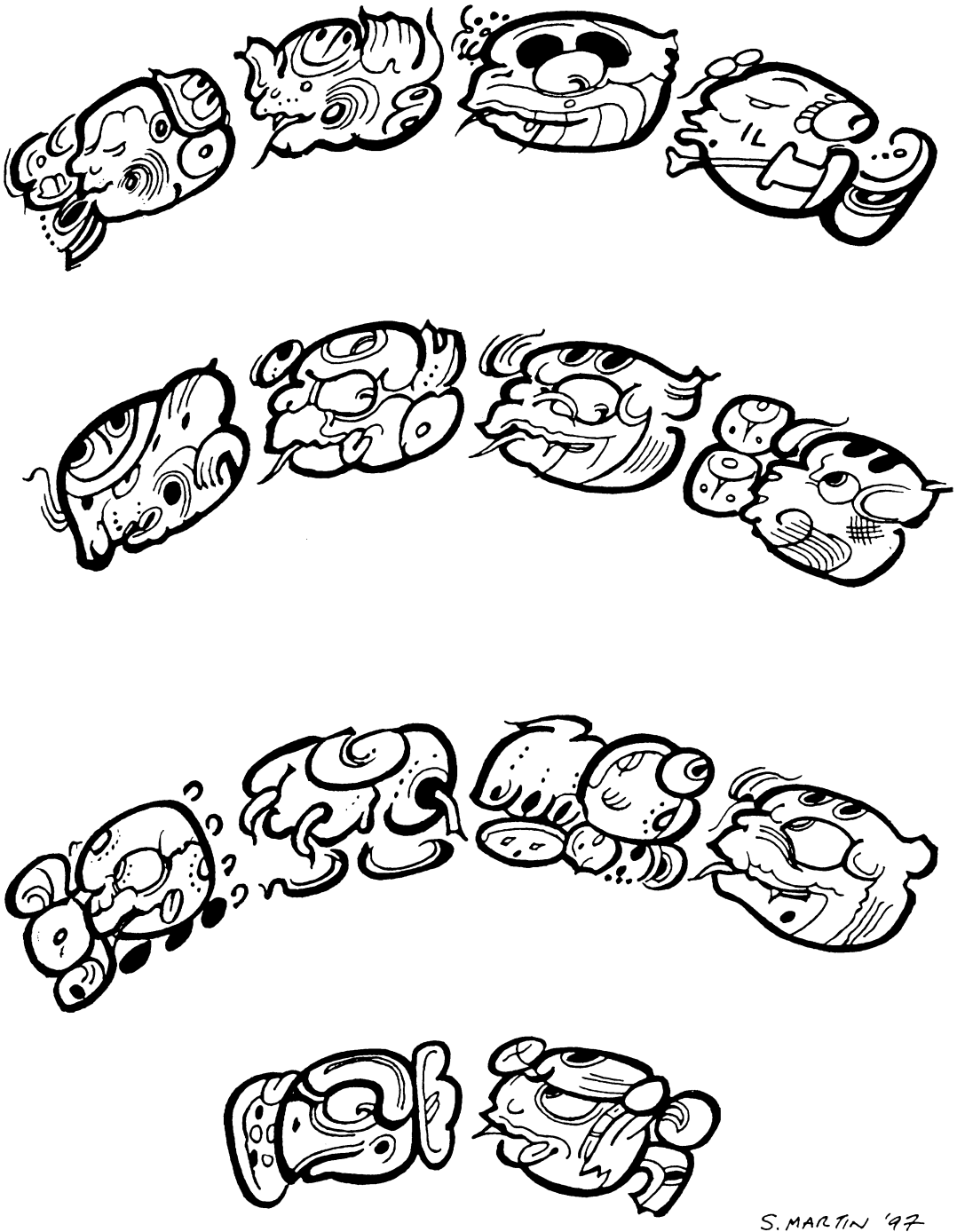
Ceramics and Royal Identity

Fourteen ceramic vessels were recovered from Tomb 4. Four of these are tall, cylindrical polychrome vases. One of these vases is covered with light green stucco. The other three are cream-based polychromes of the Juleki Cream type (Figure 8); below the rims these vases bear abbreviated Primary Standard Sequences. These glyphic dedicatory texts usually indicate the vessel's function[4].

Another ceramic offering is a beautifully painted Zacatal Cream polychrome codex-style vase with representations of an anthropomorphized serpent-winged bird deity with skybands above and below, forming a cosmic frame under an inscription that mentions that the vase was used for drinking cocoa. Three short, straight-sided Zacatal Cream vases or cups are painted with icons that include the Jester deity (an emblem of royalty and a symbol of kingship in the southern Maya Lowlands) and the Celestial Monster. Four black-slipped dishes or plates, two of the latter with graffiti of the young maize god Hun Nal Yeh emerging from the plant, are of the Infierno Black type. Results from microscopic analyses have revealed the presence of remains of maize in one of these plates. Another polychrome dish, of the Palmar Orange type, displays water birds, shells, and the Jester God's head in the interior.

The most important vessel in the Tomb 4 inventory is a round-sided orange polychrome dish with an annular base. On the interior walls is a glyph band surrounding the head of the Jester God in the center (Figures 9 and 10). The band of glyphs

Figure 9. Polychrome plate naming Yukom Yich'ak K'ak'.

S. MARTIN '97

Figure 10. Text on the polychrome plate naming Yukom Yich'ak K'ak'.

includes the name phrase of Yukom Yich'ak' K'ak' and specifies that this is his plate (*u-lak*).

All the vessels date to the Late Classic period (A.D. 600–800). Moreover, codex-style vessels recently have been reassigned (Reents-Budet et al. 1997) to a more restricted time frame in the first half of the Tepeu II horizon, between 9.12.0.0.0 and 9.15.0.0.0 (A.D. 672 to 731). Thus the dating

of the Tomb 4 vessels corresponds perfectly to the time span associated with the rule of Yukom Yich'ak K'ak'.

Conclusions

The discovery of Tomb 4 at Calakmul provides us with a rich new source of information on the burials of Classic-period Maya rulers. It also forces us to reevaluate the hypothesis that Jaguar Paw, the governor of this site during its peak of political power, was taken captive by the ruler of Tikal. We plan to carry out DNA analyses in the future, which may help confirm the genetic affiliation of the person buried in Tomb 4 with the Classic-period population of Calakmul. In the meantime, however, the splendid burial goods described in this paper, including a polychrome plate bearing the name of Yukom Yich'ak K'ak', suggest strongly that Jaguar Paw was buried at Calakmul.

References Cited

Carrasco, R., S. Boucher, and P. Alvarez
1997 *Una revisión histórica sobre Garra de Jaguar, gobernante de Calakmul en el siglo séptimo.* Ponencia presentada en el IV Coloquio de Arqueología Mexicana Pedro Bosch Gimpera. Centro de Estudios Mayas, UNAM, México, D.F.
Carrasco, R., S. Boucher, C. Baudez, J. P. Courau, A. Dowd, E. González, S. Martin, V. García, R. Schneider, G. Sánchez, R. Carrillo, A. Paul, N. Rojas, and M. Brook
1996 *Proyecto Arqueológico de la Biósfera de Calakmul, Campeche. Informe general.* Archivo Técnico, Instituto Nacional de Antropología e Historia, México, D.F.
Folan, W. J.
1982 Calakmul, Campeche: su centro urbano, estado y región en relación al concepto del resto de la Gran Mesoamerica. *Información* 9:161–185. Universidad Autónoma del Sureste, Campeche, Mexico.
1988 Calakmul, Campeche: el nacimiento de la tradición Clásica en Mesoamérica. *Información* 13:122–190. Universidad Autónoma del Sureste, Campeche, Mexico.
1992 Calakmul, Campeche: A Centralized Urban Administrative Center in the Northern Peten. *World Archaeology* 24:158–165.
García Vierna, V., and R. Schneider Glantz
1996a *El proceso de rescate, conservación, restauración y análisis como una fuente primaria de investigación antropológica: el caso de la tumba 1 de la estructura XV de Calakmul, Campeche.* Unpublished bachelor's thesis, Escuela Nacional de Conservación, Restauración y Museografía "Manuel del Castillo Negrete, Instituto Nacional de Antropología e Historia, México, D.F.

1996b Informe. In *Proyecto Arqueológico de la Biósfera de Calakmul, Campeche. Informe general,* by R. Carrasco, S. Boucher, C. Baudez, J. P. Courau, A. Dowd, E. González, S. Martin, V. García, R. Schneider, G. Sánchez, R. Carrillo, A. Paul, N. Rojas, and M. Brook, pp. 117–125. Archivo Técnico, Instituto Nacional de Antropología e Historia, México, D.F.
Hellmuth, N. M.
1967 *Structure 5D-73, Burial 196, Tikal, Peten, Guatemala. A Preliminary Report.* Foundation for Latin American Anthropology Research, Winter Park, Florida.
Marcus, J.
1976 *Emblem and State in the Classic Maya Lowlands: An Epigraphic Approach to Territorial Organization.* Dumbarton Oaks, Washington, D.C.
1987 *The Inscriptions of Calakmul: Royal Marriage at a Maya City in Campeche, Mexico.* Technical Report No. 21. Museum of Anthropology, University of Michigan, Ann Arbor.
Marcus, J., and W. J. Folan
1994 Una estela más del siglo V y nueva información sobre Pata de Jaguar, gobernante de Calakmul, Campeche, en el siglo VII. *Gaceta Universitaria, Año IV* (15–16):21–26. Universidad Autónoma de Campeche, Campeche.
Martin, S.
1996 Calakmul en el registro epigráfico. In *Proyecto Arqueológico de la Biósfera de Calakmul, Campeche. Informe general,* by Carrasco, R., S. Boucher, C. Baudez, J. P. Courau, A. Dowd, E. González, S. Martin, V. García, R. Schneider, G. Sánchez, R. Carrillo, A. Paul, N. Rojas, and M. Brook, pp. 63–113. Archivo Técnico, Instituto Nacional de Antropología e Historia, México, D.F.
Martin, S., and N. Grube
1994. *Evidence for Macro-Political Organization Amongst Classic Maya Lowland States.* Manuscript on file. Archivo del Proyecto Arqueológico de la Biósfera de Calakmul, Centro INAH Yucatán, Mérida, Mexico.
1995 Maya Superstates. *Archaeology* 8(6):41–46.
Miller, J.
1974 Notes on a Stelae Pair Probably from Calakmul, Campeche, Mexico. In *Primera Mesa Redonda de Palenque,* Part 1, edited by M. Greene-Robertson, pp. 149–162. Robert Louis Stevenson School, Pebble Beach.
Reents-Budet, D., J. Ball, V. Fields, and B. Macleod
1994 *Painting the Maya Universe: Royal Ceramics of the Classic Period.* Duke University Press, Durham.
Reents-Budet, D., S. Martin, R. Hansen, and R. Bishop
1997 Codex Style Pottery: Recovering Context and Concept. Paper presented at The Maya Meetings at Texas, University of Texas, Austin.
Romero Molina, J.
1986 *Catálogo de la colección de dientes mutilados prehispánicos IV parte.* Colección Fuentes, Instituto Nacional de Antropología e Historia, México, D.F
Schele, L., and D. Freidel
1990 *A Forest of Kings.* Will Morris, New York.
Stuart, D.
1989 Hieroglyphs on Maya Vessels. In *The Maya Vase Book,* Vol. 1, edited by J. Kerr, pp. 149–160. Kerr Associates, New York.

Notes

[1] J. Miller (1974) first identified this ruler and called him Jaguar Paw Smoke. Schele and Freidel (1990) changed the name to Jaguar Paw. More recently, S. Martin (1996) has read the name phrase as Yukom Yich'ak K'ak', which he

interprets as Claw of Fire. However, we feel that *zarpazo de fuego* more adequately translates the glyphs.

[2] The birth date of Jaguar Paw is recorded on Stela 9 and Panel 6 of Calakmul. The date of his accession appears both at Dos Pilas (Stela 13) and El Perú (Stela 30) (Schele and Freidel 1990:180–181).

[3] At the moment, we believe that the nude body of the deceased was directly wrapped in this shroud.

[4] A Primary Standard Sequence is a glyphic dedicatory text that usually indicates the type of vessel according to its function and may include the names of the owner of the vessel, its patron, or even the scribe who painted it (Reents-Budet et al. 1994). An abbreviated Primary Standard Sequence, however, does not include personal names.