

A PATTERN OF INFANTILE BURIALS IN VESSELS DURING THE TRANSITION FROM THE LATE CLASSIC TO THE TERMINAL CLASSIC AT CHICHEN ITZA, YUCATAN

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This work will present a pattern of vessel infant burials detected in the excavations conducted by the Chichen Itza Project, which seems to be characteristic of the Late/Terminal Classic transition here (approximately between 800 and 850 AD). The sample includes four examples recovered in three different parts of the city.

BURIAL AT THE MAYALAND HOTEL

The first example was recovered as a response to word received about the destruction caused by the electric wiring works at the grounds of the Mayaland Hotel (during the excavation of a concrete base for a power substation), located within the archaeological area. The burial, discovered by workers in a Kankabal area (flat areas with reddish earth typical of northern Yucatan), had been removed and subsequently disposed of into a *sascabera*, wherefrom it was recovered by a member of the project (Pérez Ruiz 1997). The burial was located in an area that was apparently free of structures close to a group of residential foundations, though at a later time, *Sacbe 81* (a branch of *Sacbe 61*; Pérez Ruiz, personal communication, 2004) was discovered precisely there. The vessels were severely fragmented and mixed up, and only a small number of fragments could be rescued, although these were more than enough to determine an infant burial.

The vessels in this burial include one jar (pot or pitcher), and one tripod dish (Figure 1), both of the Chemax Black on Slate type, which is typical of the Late Classic Yabnal/Motul complex of Chichen (600-800/830 AD). We should mention that Slate ceramics constitute a long-lasting technological tradition in northern Yucatan, which has extended from the Late Classic to the Early Postclassic periods, and which is characterized by the use of volcanic ash as a temper. The Slate ceramic of the Motul complex (Late Classic), at times denominated "Early Slate", has been recently defined thanks to the efforts of different authors (Boucher 1992; Varela 1998; Pérez de Heredia 1999; Chung 2000).

The jar is cut at the height of the shoulder, and it has no neck and no rim, as its interior was used as a container for the burial, while the dish, turned upside down, was used as a lid (Figure 1). The jar is globular in shape, and presents three large handles. Two of the handles are broken, in a clear recycling example of a broken vessel. It presents a quite uniform slip of a light yellow-orange (Munsell 10YR7/4) to a pale orange color (Munsell 7.5YR7/4), with almost imperceptible traces of trickled orange decoration (Munsell 5YR6/8). It was very fragmented in small pieces. The paste has lost the typical compact character of the Slate ceramic (maybe due to the burying conditions, or perhaps as a consequence of the conditions endured during its use and possible reuse prior to the burial).

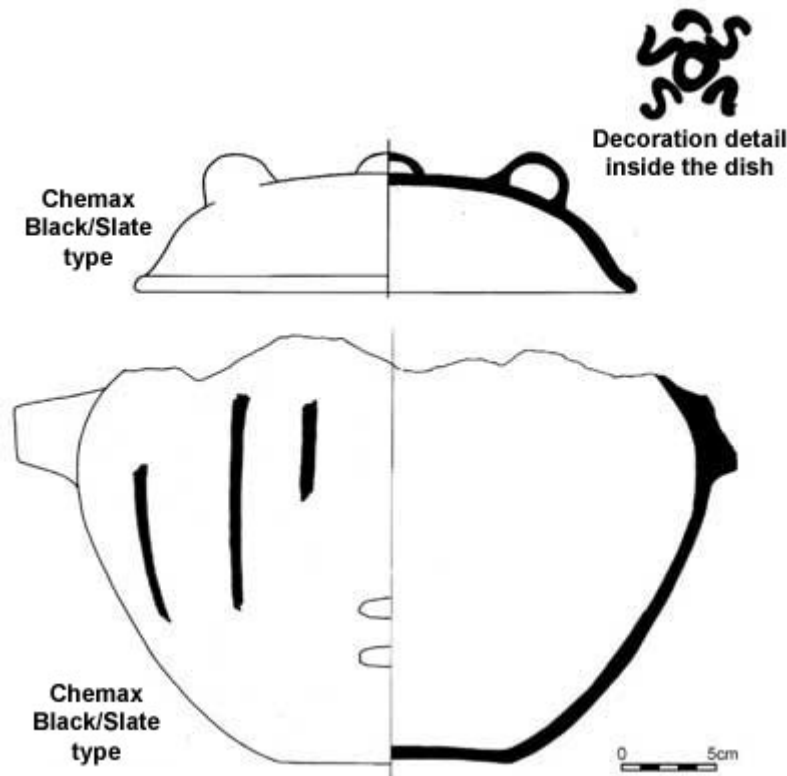


Figure 1. Burial offering. Recovered during the Mayaland electricity wiring works.

With a peculiar shape, unusual in Chichen, the tripod dish with hollow supports used as a lid features a very distinctive thickened rim and an homogeneous light gray slip (Munsell 7.5YR8/1 to 7.5YR8/2). The light gray and fairly homogeneous slip is already representing an estrangement from the typical slips of the Motul slate (uneven and with frequent firing specks) while it presents a soapy texture in the best preserved parts. The dish has a dotted decoration around the rim, and a design at the bottom in the form of a frog (Figure 1). One of the supports presents incision marks fairly parallel from one another, possibly the result of the use it was given prior to the burial. Likewise, it presents post-fire reddish stains at the inside (caused by hematites, perhaps).

This form of dish, of which another complete vessel was found in the chultun of Three Lintels featuring the design of a turtle (Figure 2) of a light gray color (Munsell 2.5YR8/2) and fragments scattered around the site, could represent a late dish mode

of the Early Slate ware of the Motul complex. An additional example was recovered in a burial context at the village of Tikimul, some 15 km southeast of Chichen Itza (Figure 2). It ranges from a light gray (Munsell 5YR8/2) to a light reddish gray color (Munsell 2.5YR7/2).

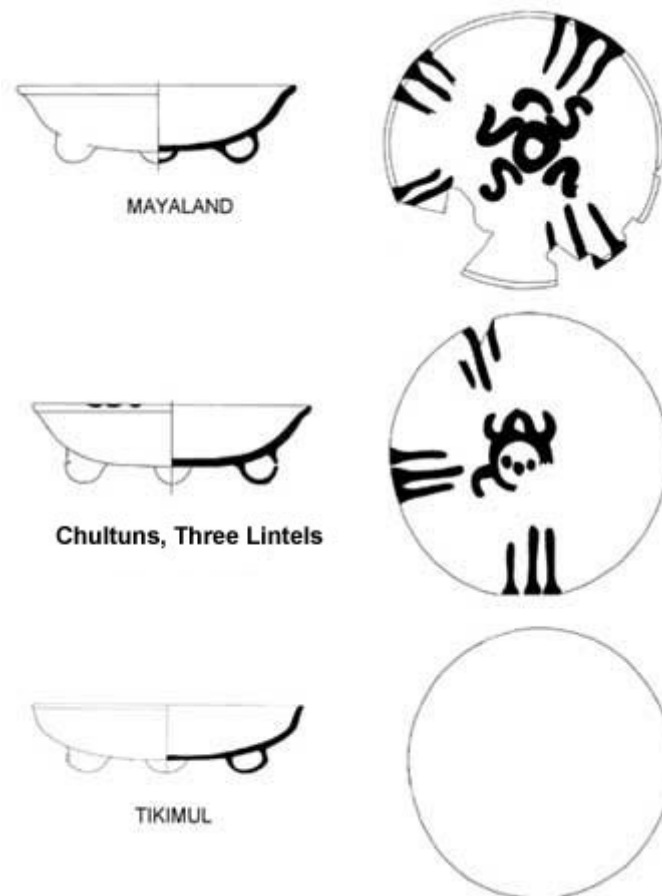


Figure 2. Thickened rimmed dishes, Chemax Black on Slate.

BURIAL UNDER ALTAR 5C1a OF THE INITIAL SERIES GROUP (BURIAL 6)

Several years later than the previous case, another burial with similar characteristics was discovered at the Initial Series Group, 800 m south of the Complex of the Nuns (with which it is connected by *Sacbe* 25). This one, catalogued like Burial 6, was found during the excavation of a small altar (Structure 5C1a, Euan Canul 2004). This time the finding was duly excavated and documented, making it possible to transport it altogether to the project laboratory, so that the inside of the vessel where the burial was located could be excavated. The area where this example was found is located in the northwest section of the platform of the Initial Series Group, where several burials were found in recent years (Figure 3; Euan Canul 2004).

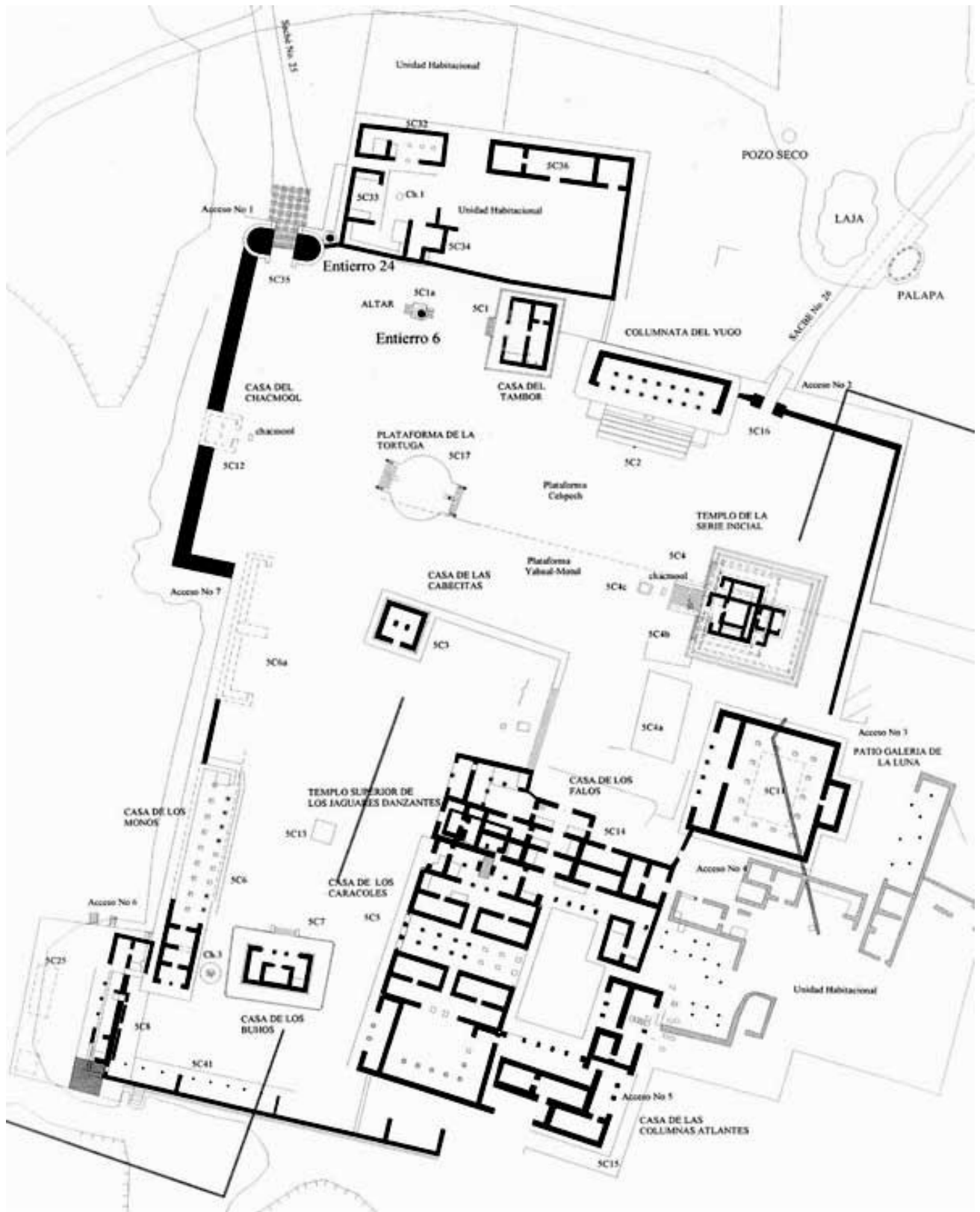


Figure 3. Ground plan of the Initial Series Group.

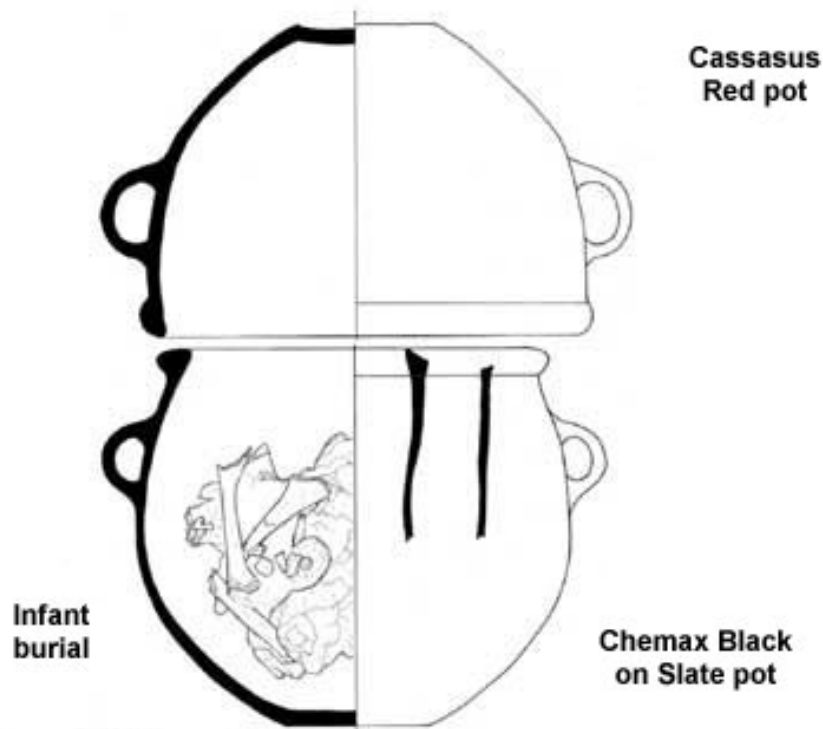


Figure 4. Burial 6, Structure 5C1a.

Again, there are two vessels of the Yabnal/Motul complex, but in this case the forms correspond to two pots, an orange one used as a container, and a red one used as a cover (Figure 4).

The first may be incorporated into the Chemax Black on Slate type, because of the type of slip and the finishing technique. It features a globular silhouette, and a type of a remarkable angled thickened rim which is not common among the pot rim modes of the Motul Slate type (one similar example of pot was recently excavated in a non-funerary context at the southwest sector of the Initial Series Group; Schmidt 2001). One of the handles of this bowl, which features a rather coarse manufacture, is slightly deteriorated, perhaps because of the use it was given previous to the burial. It shows a translucent slip, fairly soapy in the best preserved areas, although it is now almost completely lost. It has very apparent firing specks with orange and gray colors. Thus, the color ranges from a pale orange (Munsell 5YR8/3) to a pale reddish orange (Munsell 2.5YR7/4) and then to a plain orange (Munsell 2.5YR7/6), and besides, it includes a large light gray stain (Munsell 5Y/72).

The bowl that covered the burial was classified as corresponding to the Cassasus Red type, the Chichen variety of the Yabnal/Motul complex. It is more globular in shape and features a type of pillow rim more characteristic of the pot modes of the Motul Slate ceramics. The inner slip is more homogeneous than the outer slip, and is basically red (Munsell 10R4/8), with orange (Munsell 2.5YR7/6) and light orange yellow (Munsell 10YR8/3) patches.

One of the handles is broken, possibly as a consequence of some action carried out before the burial. Alike the other pot, it was coarsely manufactured, and probably

both of them were made by using the rolling technique. The best preserved areas show a fairly soapy slip.

Unfortunately, the issue of the red Chichen vessels preceding the Sotuta complex has not been studied in full as yet, while the positioning of form and slip variability are not yet as comprehensively known as the case of the Slate vessels are.

According to Arias (2004), the burial corresponds to an infant with an indeterminate sex, two to three years old, and very poorly preserved.

WALL NEXT TO THE ARCH OF THE INITIAL SERIES GROUP (BURIAL 24)

Not far from the previous burial, another infant burial inside a vessel was discovered next to the north wall of the Group, during the excavations of the entrance Arch to the Initial Series Group (Burial 24; Euan 2002, Figure 3).

In this case, the vessels include one middle-sized pot that was used as a container, and a dish with a flat bottom that worked as the lid (Figure 5). They both were very fragmented, and were excavated *in situ*. The dish presents a smaller diameter than the pot's, and was found in the inside, practically squashed against the skeleton of a neonate individual. Both vessels may be classified as corresponding to the Chemax Black on Slate type of the Yabnal/Motul Complex.

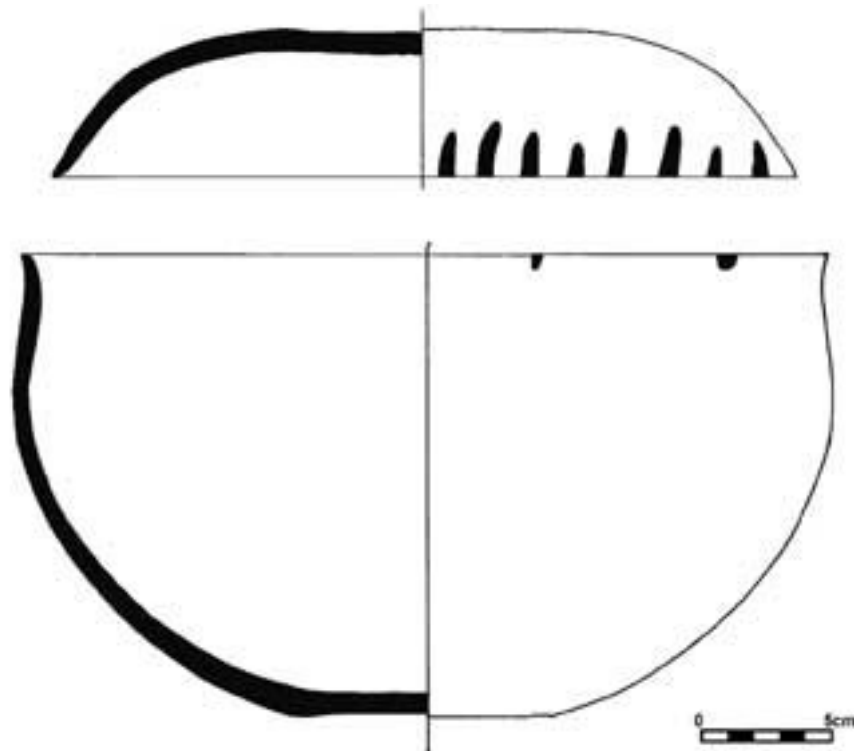


Figure 5. Vessel of Burial 24, Chemax Black on Slate.

The pot has an outer slightly everted thickened rim featuring an elegant curvature that reflects a sophisticated technical degree of manufacture. The slip is fairly

uniform and coats the surface well. In the outside it presents a reddish light gray to light gray color (Munsell 2.5YR7/1;7/2 to 2.5Y7/1). It shows light roots marks, typical of the Motul slate, and several purple and diffuse marks, probably the antecedents of the root marks typical of the Cehpech slate. It is decorated with a number of orange dots painted around the rim (Munsell 2.5YR6/6; it is important to note that even though the type is denominated Chemax Black on Slate, the firing technique used in these vessels, after the painting, frequently cause changes in the paint color, which usually shifts towards orange). Inside, it shows circular wear traces provoked perhaps by the dish that covered the burial, as well as slight traces of breakage (possibly previous to its use as a funerary urn).

The dish that covered the burial shows a manufacturing technique similar to that of the pot, and presents as well a dotted, orange decoration around the rim (Munsell 7.5YR7/6). The slip is fairly uniform and of a light gray color (Munsell 2.5YR7/1), similar to the one outside the pot, both at its outer and inner part. The bottom is heavily eroded, to such a degree that the reddish color of the paste with marks of whitish very fine roots, can be easily detected.

As to the buried individual and according to Arias (2004), it is a neonate infant of an indeterminate sex, zero to three months old (interestingly, it is mixed with animal bones).

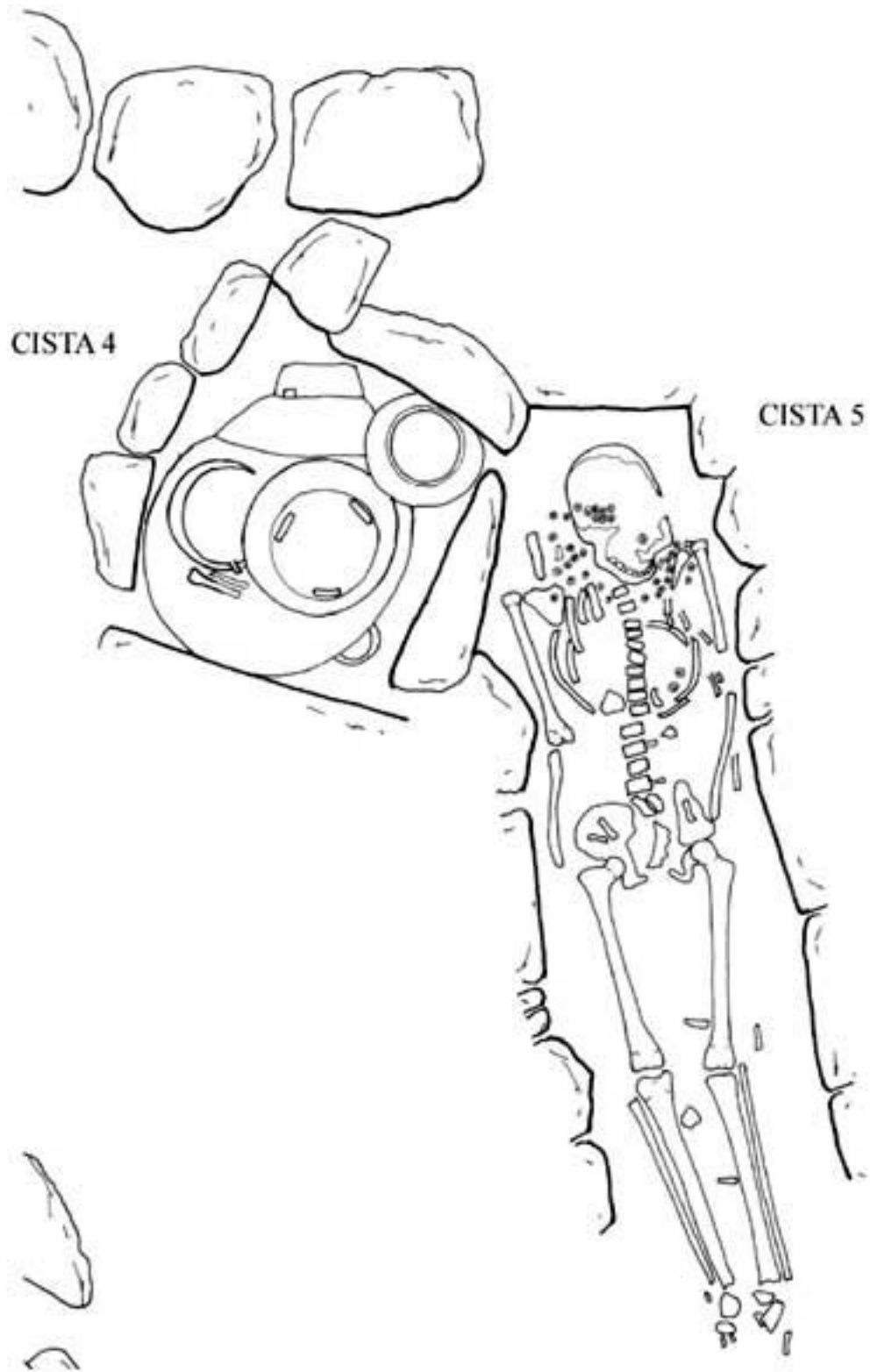


Figure 6. Cysts 4 and 5, Building of the Three Lintels.

THE BUILDING OF THE THREE LINTELS (CYST 4; BURIAL 28)

Finally, a vessel infant burial was found in a stratigraphic pit excavated at the building of the Three Lintels (Structure 7B3), which clearly belongs to the Yabnal/Motul complex (Pérez de Heredia 2004). The burial was found inside a cyst formed by stone slabs placed edge-on, with a large uncarved flagstone that works as a lid (Figure 6). This burial integrates a group of seven carved cysts found recently under the terrace that works as the foundation of the Building of the Three Lintels mentioned above. It was found in close association with a cyst that contained a female burial (Cyst 5). They both may have been related to one another.

Inside cyst 4, a small fluted jar with no slip was initially found (Figure 7). Below, there was a large fallen down jar of the Chemax Black on Slate type, which was fully removed and taken to the camp of the Chichen Itza Project, where it was excavated by Francisco Pérez. The jar had been intentionally broken in its ventral section. This opening was used to introduce the vessels that contained the burial. They consisted of a bowl of the Itzimna Red on Orange of the Grooved variety, corresponding to the Kinich group (orange; Munsell 5YR7/8), and a dish of the Chemax Black on Slate type (of a grayish yellow color; Munsell 5Y7/2), containing the femur bones of an infant of an indeterminate sex, two to three years old (Arias 2004).

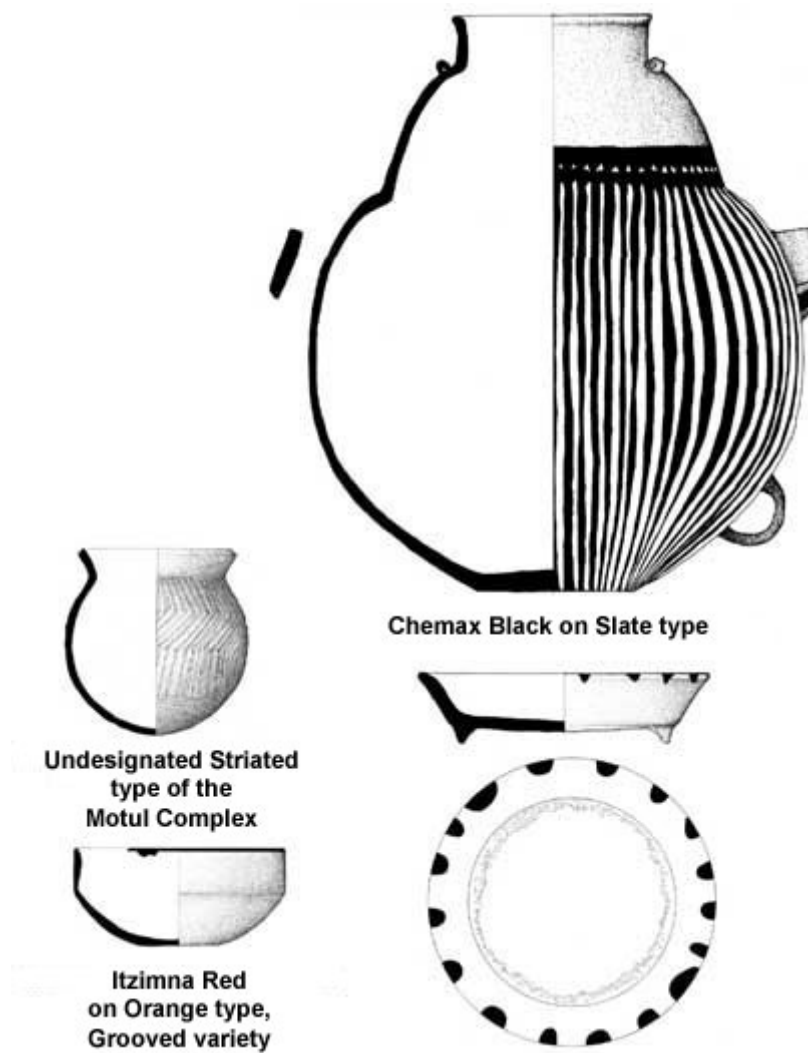


Figure 7. Vessels in Cyst 4 at Three Lintels.

The small striated jar has been provisionally classified as corresponding to the Undesignated Striated Type of the Motul Complex. Other two similar jars were recovered in other two cysts adjacent to this one (Pérez de Heredia 2004). It is of a pale orange yellowish color (Munsell 10YR7/3), with orange portions (Munsell 7.5R7/6), and presents black spots caused by direct exposure to fire, presumably post-fire. It is very well preserved.

The jar containing the burial shows a fairly homogeneous, light brownish gray color (Munsell 7.5YR7/4), and trickled decoration. It is similar to the one reported by Brainerd for Dzebtun (1958: Fig. 35). We know of one similar vessel recovered at Pixoy, in the vicinities of Valladolid (Burgos and Palomo 1984), and recently, another one was reported from a burial in Dzibilchaltun (Maldonado et al. 1998).

Although no other cases of vessel infant burials at Chichen Itza are known, we should remember that secondary burials placed in two jars were discovered under the floor of the rectangular platform of The Snail (Ruppert 1935: 119-120). They contained burnt bones, and both vessels apparently corresponded to the Piste

Striated type of the Sotuta complex, and thus, they would date to after the IX century.

On the other hand, there was a multiple infant burial in a cavity excavated during the construction of the Chichen Itza airfield, in 1967. This finding consisted of bone remains of almost 100 infant individuals, apparently associated with pottery of the Sotuta complex (Schmidt and Márquez 1984).

Furthermore, bone fragments of infants and neonates were reported in a variety of contexts at the site, namely, the Sacred Cenote (Hooton 1940), the Ossuary, *Sacbe 1* (Bennett 1996) and the Initial Series Group (Arias, personal communication 2004). Most of them can be reasonably associated with the Early Postclassic Sotuta complex.

COMPARABLE CASES FROM NORTHERN YUCATAN

Two burials located at Isla Cerritos apparently involving neonates (Gallareta, personal communication 2004) appear to be the perfect comparative case for the Chichen examples. One of them has been already published: discovered during the explorations of this coastal site in 1984-85 (Andrews et al. 1988), the burial includes a container in the form of a large jar, and a red tripod bowl as a cover (Figure 8; Cervera 1996: 128).

The jar, with no neck, with a globular silhouette and a notched rim, has been presented as corresponding to the Muna Slate group of the Cehpech Complex (Andrews et al. 1988), traditionally of the Terminal Classic period (800-1000 AD, according to Smith 1971). In turn, the bowl with tripod, hollow supports, has been presented as corresponding to the Dzibiac Red type (Andrews et al. 1998) of the Sotuta Complex (traditionally dated to the Early Postclassic period, 1000-1200 AD, according to Smith 1971).

These vessels have been highly significant in the discussion about chronology and positioning of the ceramic horizons of the Terminal Classic and Early Postclassic periods in northern Yucatan, given the fact that they would represent two different complexes, Cehpech and Sotuta (Andrews et al. 1988). Thus, this finding helped to reinforce one argument that suggested an earlier positioning for the Sotuta complex than the year 1000, as considered by the traditional view, and which is today known as the *theory of overlapping* (Ball 1979; Sabloff and Andrews 1986).

Today, both vessels are housed at the Regional Museum of Anthropology "Palacio Cantón". For a while now, there is disagreement in regard to the typological identification of these vessels (Sylviana Boucher and E. Pérez de Heredia 1998, personal observation). The type of technique used in the surface finishing –slip and decoration- of the jar is clearly of the Chemax Black on Slate type, corresponding to the Motul complex (Pérez de Heredia 2002, 2003). As to the tripod bowl, neither its form nor the finishing of its surface allow for classifying it within the Dzibiac Red type; its dark orange shade would rather point to the Teabo Red type of the Cehpech complex (though it could also be one case of the Cassasus Red type corresponding

to the Motul complex). Should it correspond to the Teabo Red type, we should have then the association of one vessel of the Motul complex with another one of the Cehpech complex, placing the finding in a transitional moment between Motul and Cehpech, and not in a transitional moment between Cehpech and Sotuta.

Therefore, the case of Isla Cerritos fits perfectly into the chronological frame, and this infant burial is to be dated to the Late Classic period, or to the transition between the Late Classic and the Terminal Classic periods. In any case, these vessels cannot be used to support the theory of the overlapping between the Terminal Classic and the Early Postclassic periods, as was suggested back in the 1980's (Andrews et al. 1988), as none of the two vessels belong to the Sotuta complex.

In Dzibilchaltun, there is one case of a vessel infant burial found under a plaza floor. It is integrated by a black jar and a red dish, and it would correspond to the Late Classic period, according to Ruz Lhuillier (1989:142).

Besides, a recent report in Dzibilchaltun refers to an adult burial in a large jar of this type, of the Chemax Black on Slate type (Maldonado et al. 1998, 2004) associated with Balancan Fine Orange pottery. Here, we have a clear association of a vessel of the Motul complex (the Chemax jar), with vessels of the Cehpech complex (the Balancan vessels). The jar features the same shape than the one found in the Three Lintel's burial shown above.

The vessel with a burial at Izamal mentioned by Diego de Landa (1973: 12, 107), could also belong to the Motul complex. In two occasions, the friar says that this was a large jar with three handles, and refers that it is painted "*outside some silvery fires*". As shown in the examples from Chichen, Dzibilchaltun and Pixoy, the Chemax vessels are very large jars with three handles, while the "silvery fires" fairly accurately depict the metallic, iridescent shine that characterizes the Slate ware of the Motul complex (Figure 8).



Figure 8. Infant burial inside a vessel, Isla Cerritos.

Even though Ruz includes Kabah in his map of sites with vessel burials, the evidence present at that Puuc site is not sound. In Ruz's own words, there was "*a chamber, not too high... with a small pit that may have been an antechamber or contained an infant burial, but it was found empty...; the chamber contained two large clay vessels and ash*" (Ruz Lhuillier 1989:141).

Infant burials inside vessels appear very frequently at Isla de Jaina. According to Ruz (1989:150), there, "*the vessels are always globular pans. They are found in the earth, covered with a bowl also made of clay, and in general, under several stones. They only contain primary infant burials (there is only one case of a secondary burial, an infant burial too, following cremation, of an approximate total of 70 vessel burials). The remains seem to correspond to children of a young age (frequently less than one year old), and the bodies were placed in a flexed position, and were at times*

covered with red paint. The offerings include pottery (abundant miniature vessels and figurines), shell, bone and chert objects, and snails”.

Although many of them have remained unpublished, several vessel infant burials were excavated in recent years in northern Yucatan. For example, one infant burial in a slate pot with trickled painting was found at one side of the stairways of the Canul Group at Oxkintok, the beginning of the *Sacbe* that connects this group with the May Group (R. Velázquez, personal communication 2003).

In turn, Gallareta reports a vessel infant burial of the Late/Terminal Classic excavated recently at the site of Kiuic, also in the Puuc area (Tomás Gallareta, personal communication 2004).

Likewise, in the city of Merida, in the salvage carried out at Colonia San Pablo Oriente, an infant burial was found in a Chubuma Brown jar of the Cochuah Complex (300-600 AD, Concepción Hernández, personal communication 2004).

In Xcambo, several vessel infant burials were found, frequently in jars of the Nimun Brown type, also of the Late Classic period (José F. Osorio, personal communication 2004).

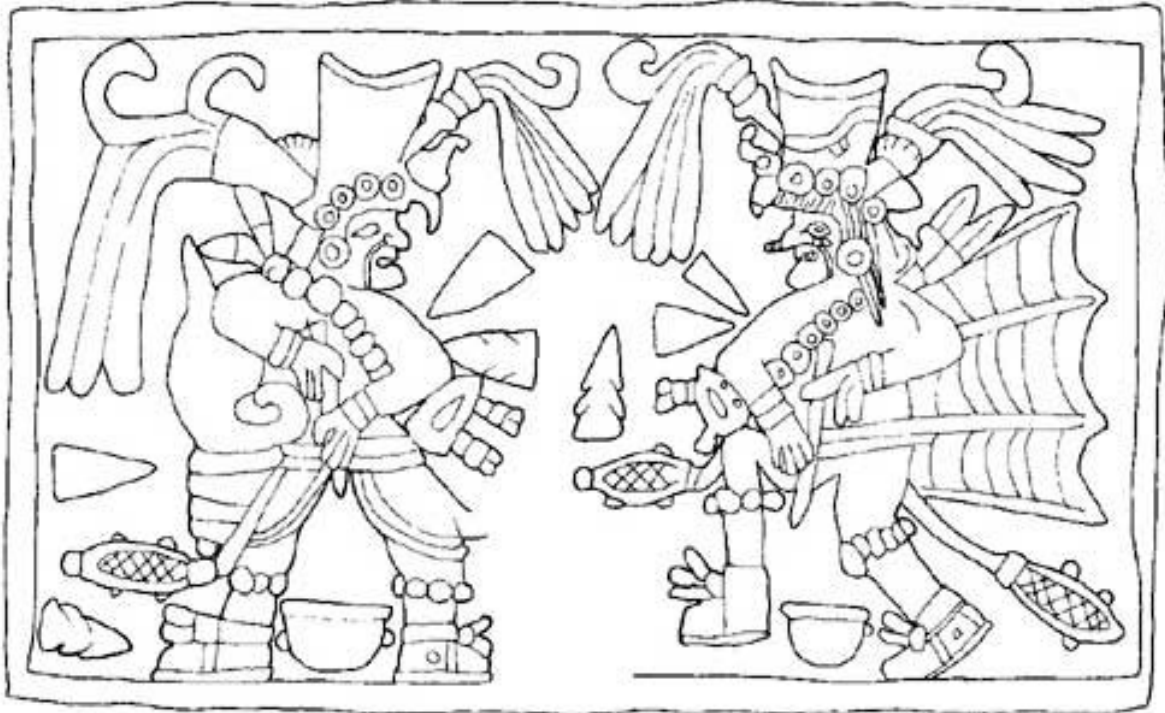
DATINGS

The two examples of the Initial Series Group were located in an enlargement of the original Motul platform built during the first phase of the Cehpech complex (Pérez de Heredia 2004), and therefore, the burials may be contextually dated to the first half or the mid-IX century (approximately 830-870 AD; Figure 3). An adult burial with vessels that may be considered pure Cehpech (two of them of the Muna Slate type, traditionally dated between 800 and 1000 AD; Smith 1971), was also found in the same platform enlargement where the infant burials were located.

One additional matter is the dating of the vessels, which correspond to the Yabnal/Motul complex, suggesting a modal positioning for a late facet of the complex. Nevertheless, and because of its clear stratigraphic location, it is evident that both cases of the Initial Series represent sound examples of persistency of vessels of an earlier complex (Yabna/Motul), during the beginning of the new Cehpech complex.

In the case of the burial found at the Mayaland hotel, its chronological positioning poses greater difficulties as a consequence of its unknown context. We could suggest a late facet of the Motul complex based on some modal details of the dish used as a lid, while similarly, like in the two previous cases, the possibility remains open that the burial could have taken place at the beginning of the Cehpech complex.

The burial at Three Lintels, in turn, stratigraphically belongs to halfway the Yabnal/Motul complex, and cannot be included within the pattern of transitional infant burials discussed here.



Panel 8



Panel 4

Figure 9. Panels at the Building of the Phalluses.

ICONOGRAPHY

Vessel images similar to those in the pans with handles of the infant burials presented in this work, are present in the friezes of the Building of the Phalluses in the Initial Series Group at Chichen Itza, where they have been recently excavated and restored (Figures 9 and 10; Osorio 2003). The Palace of the Phalluses (Structure 5C14, 37 m long and 6.80 m wide), receives its name after the phallus sculptures embedded in the lateral walls of its ten vaulted rooms. The outside decoration of the building consists of false lattices in the shape of mats located on the basal walls, with sculpted panels featured on the frieze (Osorio 2003).

For the time being, the remains of 16 panels were found, nine of which are complete. The most common scenes are depictions of self-sacrifice by the represented deities, known with the name of *pawahtunes*. These images show vessels with handles that are used to collect the blood of rituals of penis perforation carried out by the *pawahtunes* (Osorio 2003; Figure 9). These scenes occur at least in seven panels, with differences in the costumes and decoration of the characters. At times, like in Panel 8 (Figure 9), both characters in the panel are involved in self-sacrifice. Other times, like in Panel 1, one character wearing an elaborate headdress and costumes presents the *pawahtun*, who is making the self-sacrifice, with an offering of food, possibly a tamal. In one case (Panel 4; Figure 9), there are up to three characters in profile, and one secondary character, possibly a child, engaged in the presentation of an offering.

There is also a representation of a small character, a child possibly, seated on a pot with handles (Panel 7; Figure 10), who may at least be hypothetically related with the burials of that group. We could even favor a contemporary dating for the frieze and the infant burials. According to the studies of the Chichen Project, the construction of the Building of the Phalluses (5C14) corresponds to the early-mid Cehpech ceramic complex at Chichen Itza (830-870 AD).

Finally, one of the panels features a jaguar emerging from one of the vessels, while a serpent is emerging from another pot (Panel 5; Figure 10). Although the meaning of this image is even more uncertain than that of the child, we should bear in mind that in the case of Burial 24, associated animal bones were present.

OSTEOLOGY

The osteological analysis was carried out by the physical anthropologist J. Manuel Arias. The age assignment of the infant subjects was established based both on the charts of development and dental sprouting (Kósa 1989), and the measures and appearance of the ossification centers proposed by Ubelaker (1989), as well as on data provided by Ferembach and collaborators (1979).

The results are as follows: in two cases (the burial under Altar 5C1a and the burial at the Three Lintels), the buried individuals are infants of an indeterminate sex and from two to three years of age. In one case (the Arch burial), the individual is a neonate,

from zero to three months of age and indeterminate sex (mixed with animal bones). In the last case (Mayaland), the definition of sex or age was not possible.

From the point of view of physical anthropology, whenever a series of bones shows the presence of children, two interpretations apply: we could be in front of some kind of environmental stress problem (Cohen et al. 1984; Cohen 1989), or either there is an attribution to practices of a cultural nature.

The first case involves practices or unhealthy conditions existing in the physical environment around the individual, or nutritional lacks that affect his/her immunological integrity that make him/her vulnerable and prone to catch some disease. The second case could involve deaths caused by practices derived from the existing habits around weaning, or a ritual practice of infanticide (Faulhaber 1995). In the case of Chichen Itza and among the buried children, no traces of trauma were identified, and therefore the osteological analysis does not favour the idea of a case of infant sacrifice.

CONCLUSION

Infant burials in vessels are a frequent practice in northern Yucatan, possibly more largely due to issues concerning operational simplicity than ideological imperatives; in other words, vessels are excellent containers for infant burials and at times even for adult burials. The ages of the individuals represented in the sample correspond to ontogenetic stages where a series of factors blend to affect the growth and development of infants.

However, in the case of Chichen Itza, we could be facing ritual activities of infant sacrifices, as part of more complex rituals possibly associated to the construction of new buildings, like in the case of the Building of the Phalluses. Such rituals would be typical of the beginning of the Terminal Classic at the site, and may be dated to the first half of the IX century AD.

As to the site's chronology, some of these burials are excellent examples of the persistency of vessels of a particular complex (Motul) during the following one (Cehpech). This type of behavior may also be observed in other sites of the northern peninsula throughout this timeframe. Although the end of the Motul complex is traditionally established around 800 AD, persistency in the use of Motul Slate ceramics at least until 830 AD may be suggested, based on recent context examples from other sites in the peninsula, such as Dzibilchaltun (Maldonado and Góngora 1998, 2004), Ek Balam (Pérez de Heredia 2001), and the typological and chronological correction of the example of Isla Cerritos, presented in this work.

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REFERENCES

- Andrews, Anthony, Tomás Gallareta and Fernando Robles
1988 Isla Cerritos, an Itza Trading Post in the North Coast of Yucatan, Mexico. *National Geographic Research*, 4 (2): 436-443.
- Arias, José Manuel
2004 Análisis de entierros infantiles del Proyecto Chichen Itza. Report, Archive of the Chichón Itza Project.
- Ball, Joseph
1979 Ceramics, Culture History and the Puuc Tradition: Some Alternative Possibilities. In *The Puuc New Perspectives*, Pella Iowa.
- Bennett, Sharon
1996 Los restos humanos de Chichen Itza. Análisis de restos óseos de las temporadas 1993-94 del Proyecto Chichen Itza, Archive of the Chichen Itza Project.
- Boucher, Sylviane
1992 Cerámica Pizarra Temprana. Algunos precursores y variantes regionales. In *Memorias del Primer Congreso Internacional de Mayistas*, Tomo 2: 464-467, UNAM, México.
- Brainerd, George W.
1958 *The Archaeological Ceramics of Yucatán*. University of California Press, Anthropological Records 19, Berkeley and Los Angeles.
- Burgos, Rafael, and Yoly Plomo
1984 Salvamento arqueológico en Pixoy, Yucatán. *Boletín de la ECAUADY*, 67: 23-37, Mérida.
- Cervera Rivero, María Purificación
1996 *Los artefactos líticos de Isla Cerritos*. Bachelor Dissertation in Archaeology, FCA, Universidad Autónoma de Yucatán.
- Cohen, M. Nathan
1989 *Health at the Rise of Civilization*. Yale University Press, New Haven.
- Cohen, M. Nathan, and George Armelagos
1984 *Paleopathology at the Origins of Agriculture*. Academic Press.
- Chung, Heajoo
2000 *Análisis tipológico y petrográfico de la cerámica arqueológica de Chichen Itza*. Ph.D. Dissertation, Facultad de Filosofía y Letras, UNAM, México.

Euan Canul, Gabriel

2002 Excavaciones recientes en la Plaza Noroeste del Grupo de la Serie Inicial, Estructuras 5C1 y 5C1a. Paper, *XVI Simposio de Investigaciones Arqueológicas en Guatemala*, Museo Nacional de Arqueología y Etnología, Guatemala.

2004 La Estructura 5C2 del Conjunto de la Serie Inicial, Chichen Itza, Yucatán: "La columnata del yugo". In *XVII Simposio de Investigaciones Arqueológicas en Guatemala, 2003* (edited by J.P. Laporte, B. Arroyo, H. Escobedo and H. Mejía), pp. 1015-1024. Museo Nacional de Arqueología y Etnología, Guatemala.

Ferembach, D., L. Schwidetzky, and M. Stloukal

1979 Recommandations pour déterminer l'âge et le sexe sur le squelette. In *Bulletins et Mémoires de la Société d'Anthropologie de Paris*, No. 6, Vol. XIII, pp. 7-45, Paris.

Faulhaber, Johann

1995 Antropología biológica de las sociedades prehispánicas. *Historia Antigua de México* (edited by Linda Manzanilla and Leonardo López Luján), Vol. 1, pp. 19-48, INAH/UNAM/Porrúa Hermanos, México.

Otón, E.A.

1940 Skeletons from the Cenote of Sacrifice at Chichen Itza. In *The Maya and their Neighbors*, New York.

Kosa, F.

1989 Age Estimation from the Fetal Skeleton. In *Age Markers in the Human Skeleton*, pp. 21-54, Charles C. Thomas Publishing.

Landa, Fray Diego de

1973 *Relación de las Cosas de Yucatán*. Ed. Porrúa, México.

Maldonado, Rubén, and Ángel Góngora

2004 El entierro de un gobernante de Dzibilchaltun. *Suplemento Cultural Unicornio*. Diario Por Esto; February 8, 2004.

Maldonado, Rubén, Ángel Góngora, and Alexander Voss

1998 Kalom Uk'uw, Señor de Dzibilchaltun. In *Memoria de la Tercera Mesa Redonda de Palenque*, vol. 1: 79-100. INAH-UADY, México.

Osorio, José F.

2004 El Conjunto de los Falos en Chichen Itza: El reflejo de una vida palaciega. In *XVII Simposio de Investigaciones Arqueológicas en Guatemala, 2003* (edited by J.P. Laporte, B. Arroyo, H. Escobedo and H. Mejía), pp. 1025-1034. Museo Nacional de Arqueología y Etnología, Guatemala.

Pérez de Heredia, Eduardo

1999 La cerámica del Cenote Sagrado. Reporte FAMSI No. 97061. Archives of the Chichen Itza Project.

2002 Informe de análisis cerámico Proyecto Chichen Itza, temporada 2002. Report, Archive of the Chichen Itza Project.

2003 Informe de análisis cerámico Proyecto Chichen Itza, temporada 2003. Report, Archive of the Chichen Itza Project.

Pérez Ruiz, Francisco

1997 Reporte del hallazgo de un entierro infantil en vasija. Report, Archive of the Chichen Itza Project.

Ruppert, K.

1935 *The Caracol at Chichen Itza, Yucatán, Mexico*. Carnegie Institution of Washington, Publication 454, Washington, D.C.

Ruz Lhuillier, Alberto

1989 *Costumbres funerarias de los antiguos mayas*. Fondo de Cultura Económica, México.

Sabloff, Jeremy A., and E. Wyllis Andrews

1986 *Classic to Postclassic: A Summary Discussion*. In *Late Lowland Maya Civilization*, University of New Mexico Press, Albuquerque.

Schmidt, Peter J.

2001 Informe de excavación en la Temporada 2001. Report, Archive of the Chichen Itza Project.

Schmidt, Meter J., and Lourdes Márquez

1984 Osario infantil en un chultún en Chichen Itza. In *Memorias de la XVII Mesa Redonda de la sociedad Mexicana de Antropología*, San Cristóbal de las Casas.

Smith, Robert E.

1954 Exploration on the Outskirts of Mayapán. Carnegie Institution of Washington. *Current Reports*, Vol. II, No. 18. Cambridge.

1971 The Pottery of Mayapan. Papers of the Peabody Museum, Harvard University, Cambridge.

Thompson, Donale E., and J. Eric Thompson

1955 A Noble's Residence and its Dependencies at Mayapan. Carnegie Institution of Washington. *Current Reports*, Vol. II, No. 25, Cambridge.

Varela, Carmen

1998 *El Clásico Medio en el occidente de Yucatán*. BAR International Series 739, Oxford.

- Figure 1 Burial offering, recovered during the Mayaland electricity wiring works.
- Figure 2 Thickened rimmed dishes, Chemax Black on Slate.
- Figure 3 Ground plan of the Initial Series Group.
- Figure 4 Burial 6, Structure 5C1a.
- Figure 5 Vessel of Burial 24, Chemax Black on Slate.
- Figure 6 Cysts 4 and 5, Three Lintels.
- Figure 7 Vessels in Cyst 4, Three Lintels.
- Figure 8 Vessel infant burial, Isla Cerritos.
- Figure 9 Panels from the Building of the Phalluses.
- Figure 10 Panels from the Building of the Phalluses.