

FAMSI © 2003: Ivan Šprajc

**Archaeological Reconnaissance in Southeastern Campeche, México:
2002 Field Season Report**

With Appendices by Daniel Juárez Cossío and Adrián Baker Pedroza, and Nikolai Grube



Research Year: 2002

Culture: Maya

Chronology: Classic

Location: Campeche, México

Sites: Various

Table of Contents

[Abstract](#)

[Resumen](#)

[Acknowledgments](#)

[Introduction](#)

[Comments on Particular Sites](#)

[El Mameyal](#)

[La Victoria](#)

[Altar de los Reyes](#)

[El Chismito](#)

[Los Tambores](#)

[Balakbal](#)

[Altamira](#)

[Other sites](#)

[Concluding Remarks](#)

[List of Figures](#)

[Appendix 1: Emergency consolidation works at Mucaancah by Daniel Juárez Cossío and Adrián Baker Pedroza](#)

[Appendix 2: Epigraphic Analysis of Altar 3 of Altar de los Reyes by Nikolai Grube](#)

[Sources Cited](#)

Abstract

The project represented the fourth season of reconnaissance works in an archaeologically little known region of central Maya Lowlands. Several formerly unknown archaeological sites were surveyed in the southeastern part of the Calakmul Biosphere Reserve and in the adjacent region to the east, and two large sites reported by Karl Ruppert's expeditions in 1930s were reexamined. The location and basic characteristics of the sites, mainly pertaining to the Classic period, were recorded and some surface pottery was collected. At Altar de los Reyes, a major urban center, two main architectural complexes were mapped and some interesting sculpted monuments were found, including an extraordinary altar with a series of emblem glyphs.

Resumen

El proyecto representó la cuarta temporada de trabajos de reconocimiento en una región arqueológicamente poco conocida de las tierras bajas mayas centrales. Inspeccionamos varios sitios arqueológicos previamente desconocidos en la parte sureste de la Reserva de la Biósfera de Calakmul y en la región adyacente hacia el este, y reexaminamos dos sitios grandes reportados por las expediciones de Karl Ruppert en la década de 1930. En los sitios, que en su mayoría pertenecen al período Clásico, se documentó la ubicación de los mismos y sus características básicas, y se recolectó la cerámica de superficie. En Altar de los Reyes, un centro urbano importante, realizamos el levantamiento topográfico de dos complejos arquitectónicos principales; asimismo encontramos interesantes monumentos esculpidos, entre ellos un extraordinario altar con una serie de glifos emblema.

Submitted 03/10/2003 by:

Ivan Šprajc

sprajc@zrc-sazu.si

Acknowledgments

The 2002 field season, like the former one, was accomplished thanks to the research grant received from the *Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI)*; the support of the *Instituto Nacional de Antropología e Historia (INAH)*, México, and the *Scientific Research Center of the Slovenian Academy of Sciences and Arts (ZRC SAZU)*, Slovenia, was also vital, and I wish to express my sincere thanks to the three institutions.

My field collaborators were topographers José Guadalupe Orta Bautista and Pascual Medina Meléndrez (*Dirección de Registro Público de Monumentos y Zonas Arqueológicas, INAH*), and archaeologists Daniel Juárez Cossío (*Dirección de Estudios Arqueológicos, INAH*) and Adrián Baker Pedroza (*Escuela Nacional de Antropología e Historia, México*). I am particularly indebted to Pepe Orta, who assisted me throughout the field season. Various types of support offered by Pedro Francisco Sánchez Nava, *Director of Registro Público de Monumentos y Zonas Arqueológicas, INAH*, were decisive for a successful accomplishment of field activities. Important aid was received from Lieutenant Colonel Alfonso Cristóbal García Melgar, Commandant of the 25 C.I.N.E. of the Mexican Army at Xpujil, Campeche, as well as from the authorities of *Municipio de Calakmul*. Kathe Lawton (*Middle American Research Institute, Tulane University, New Orleans, LA*), put at my disposal interesting archival data on former archaeological research in southeastern Campeche. María Isabel García López (*Escuela Nacional de Antropología e Historia*) assumed the task of analyzing the surface ceramics collected at various sites. Nikolai Grube (*University of Texas, Austin, TX*), drew the main monument of Altar de los Reyes and prepared a separate report on its iconographic and inscriptional contents ([Appendix 2](#)). Rubén Escartín Adam (*Dirección de Registro Público de Monumentos y Zonas Arqueológicas, INAH*), and Tomaž Podobnikar and Krištof Oštir (ZRC SAZU), offered their support in the preparation of maps and final elaboration of this report. I owe my gratitude to all of them, as well as to many collaborators and informants in southeastern Campeche, who made possible our fieldwork.

Introduction

The fourth season of Archaeological Reconnaissance in Southeastern Campeche, México, was carried out from March to May 2002, representing a continuation of the works accomplished in 1996, 1998 and 2001 (Šprajc *et al.* 1996; 1997a; 1997b; Šprajc and Suárez 1998a; 1998b; Šprajc 1998; 2001). The surveys of the first three seasons resulted in a relatively satisfactory coverage of the area in the extreme southeast of the state of Campeche, between the Río Bec region to the north and the Guatemala border to the south, and between the border with Belize and Quintana Roo to the east and the Calakmul Biosphere Reserve to the west. This territory (approximately between 89°09' and 89°30' W, and between 17°49' and 18°15' N) belongs to a number of small ejido communities, while the Calakmul Biosphere is nowadays without permanent population.

While the 2002 surveys were focused on the southeastern part of the Calakmul Biosphere Reserve, some formerly unknown sites in the adjacent area to the east were also examined. Furthermore, at North and South Complexes of Mucaancah, recorded in 1996 (Šprajc *et al.* 1996; 1997a: 8ff; 1997b: 40ff), a team directed by Daniel Juárez Cossío accomplished emergency consolidation works in recently excavated looters' trenches: our objective was to prevent a collapse of two important structures, as well as to obtain some information on construction systems and chronological sequences ([Appendix 1](#)).

Methodological questions concerning fieldwork strategies and definition of site units have been discussed in the reports of previous seasons (Šprajc *et al.* 1996; 1997b: 30ff; [Šprajc 2001](#)) and need not be repeated here. However, a few remarks about the differences between the surveys within the Calakmul Biosphere and those in the sparsely populated area to the east do seem in order.

The Calakmul Biosphere Reserve was established by a presidential decree in 1989. As a consequence, the greater part of the area was depopulated, and land use and forest exploitation (e.g. *chicle* and timber extraction) forbidden. The problems that archaeological reconnaissance works have to cope with in this situation are thus twofold. On the one hand, numerous trails that had been in use formerly are now heavily overgrown; only few of them, used almost exclusively by the Mexican army and government officials, remain passable. This obviously means that any expedition must face serious difficulties regarding transport and supplies. On the other hand, and more importantly, the persons who know archaeological sites are difficult to find. Like in previous seasons, our surveys depended heavily on the information provided by the locals. In the area of ejidos to the east, the inhabitants know their lands and are aware of ruins of any notable size. The work depending on informants, however, proved to be much less efficacious in the Calakmul Biosphere Reserve. Most people who used to live or work in the area are now either dead or too old to be able to walk. We did find a few persons who said they knew some ruins and were willing to accompany us, but their search in the changed environment was time-consuming and of limited success; on several occasions they simply did not manage to relocate the sites they affirmed to have seen before. Furthermore, due to the lack of information about the *aguadas* (water ponds) retaining water in the dry season, our water supplies were, in most cases, limited to those we were able to transport in our pick-up truck. This fact put a serious constraint on our work in uninhabited areas and resulted in unproductive expenditure of time and resources, as we were often forced to travel many kilometers along difficult trails only to resupply ourselves.

The map in [Figure 1](#), below, shows the location of the sites recorded so far in southeastern Campeche. While most of them have been registered in our surveys since 1996 (Šprajc *et al.* 1996; 1997a; 1997b; Šprajc and Suárez 1998a; 1998b; Šprajc 2001), El Palmar, discovered by Thompson (1936), and Aktunkin, reported by García Cruz (1991), are also included.¹ Triangular and circular symbols designate the sites with

¹ A few other sites have so far been reported in the area, but do not appear in Figure 1, since we did not manage to verify their locations.

architecture and the caves, respectively. The sites with architectural remains have been ordered in three categories, following the relatively simple method devised by Harrison (1981: 269) for classifying sites with architecture in southern Quintana Roo. According to his criteria, a "small" site is limited in extent and consists of structures not exceeding three meters in height, a "medium" site has a large number of small mounds, or fewer structures ranging up to 10 m in height, while a "large" site includes more structures of which at least one is higher than 10 m. The three site categories are indicated in Figure 1 with triangles of different sizes. The sites surveyed in 2002 are marked in red. Among them are Altamira and Balakbal, which had been recorded, described and mapped by the Carnegie Institution of Washington expeditions in 1930s (Ruppert and Denison 1943: 42ff, 65ff; cf. Morley 1937: pl. 218; Ruz 1945: 16f), but we visited them in order to verify their location and current state of preservation, particularly of the sculpted monuments. At El Mameyal, first recorded in 1996 (Šprajc *et al.* 1997a: 10; 1997b: 39f), additional groups of ruins were examined in 2002. At Altar de los Reyes, briefly visited in 1998 and registered as Zapote Bobal (Šprajc and Suárez 1998b: 106f), we surveyed two groups of monumental architecture with a total station; the resulting maps include both contours and conventionally represented structures ([Figure 6](#) and [Figure 12](#), see **NOTE below). Given the limited scope of the project and the fact that only the core areas were mapped, no comprehensive system of structure designation has been elaborated. In order to facilitate further references, only major structures or compounds have been numbered sequentially.

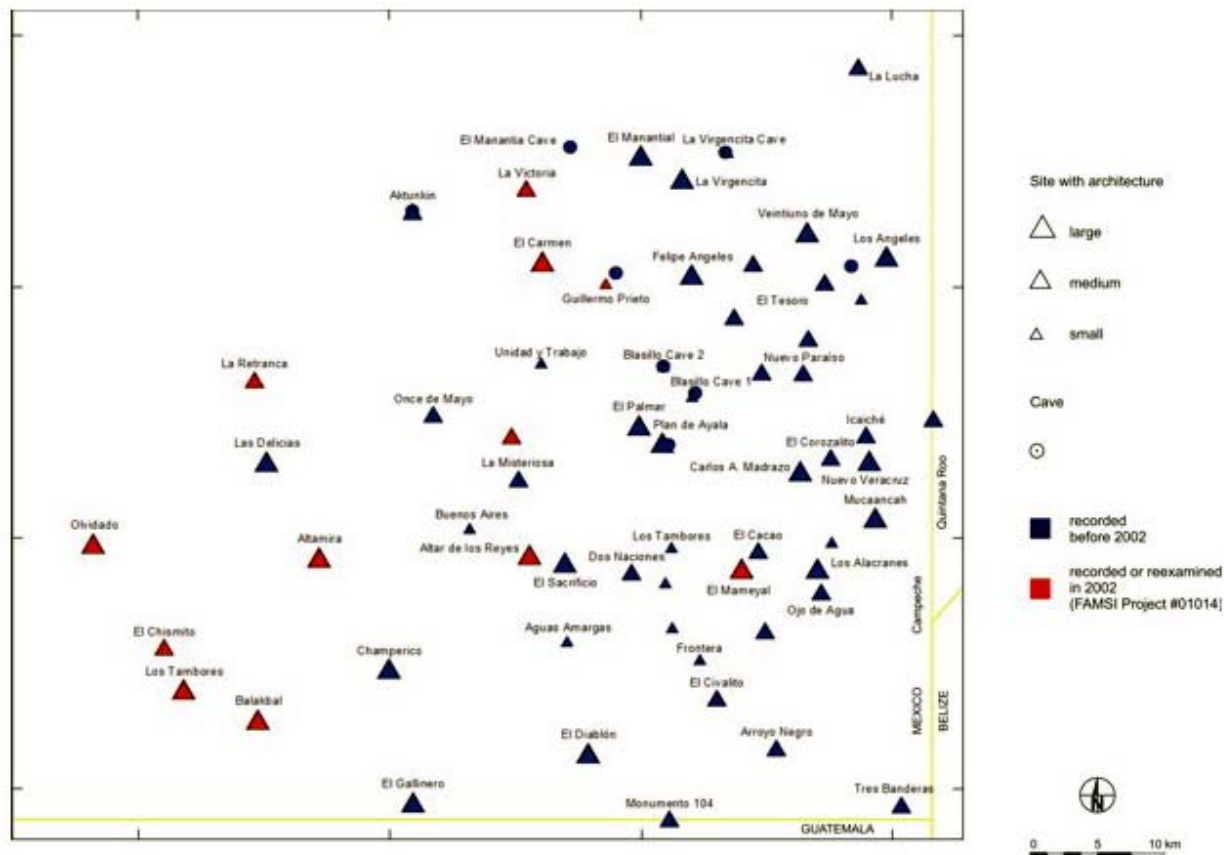


Figure 1. Location of archaeological sites in southeastern Campeche, México.

Important note

The web version of this report does not include precise data on the location of archaeological sites, in order not to make this information readily available to potential looters. Therefore, the map in [Figure 1](#) shows neither geographic features nor the coordinate grid. The information on exact location of particular sites has been omitted also in the text and site maps. All these data, including a geographically referenced map of sites based on a satellite image, are incorporated in the printed version of the report, which is on file at FAMSI.

****NOTE:** The maps of particular sites are in an AutoCAD format, which requires the Autodesk® Express Viewer. With the software installed you will be able to pan across and zoom into selected areas of the maps by right clicking your mouse and using the features in the menu. Click [here](#) for the latest version of Autodesk® Express Viewer from Autodesk.com.

Comments on Particular Sites

El Mameyal

The site is located in the *ejido* Los Alacranes. During our first visit in 1996, we examined only one group of relatively large mounds (Šprajc *et al.* 1997a: 10; 1997b: 39f). To the east and south there are at least two more groups, which were inspected in 2002.

The highest structure of the site is located on a natural elevation a few kilometers west of the modern village of Los Alacranes. It is a pyramidal construction built on the east side of a rectangular platform and overlooking a small plaza to the west. The height of the platform varies between 3 and 5 m, while the roughly square plaza upon it has sides about 20 m long. The pyramidal mound, rising some 20 m above the natural ground on its south side and 15 m on its east side, has on its western slope an enormous looters' trench, which caused the highest part of the structure to collapse. A few meters below the top, the looters penetrated into a room, apparently a tomb, approximately 2.5 m long, 80 cm wide and 1 m deep. The compound is located 1 km east of the group visited in 1996 (Šprajc *et al.* 1997a: 10; 1997b: 39f) and about the same distance southeast of a *bajo* (low wetland).

A group of smaller structures is found 1.2 km to the southwest. On the east mound of a patio group there is a stela, still in upright position. It has been partly buried by the debris of the fallen structure and its true size cannot be established without excavation; its height above the present-day ground is about 82 cm, while its width and thickness are 70 cm and 35 cm, respectively. The exposed part of the stela is badly eroded, but upon cleaning a small portion of the interred surface of its west face we were able to detect traces of relief carving ([Figure 2](#)).

The archaeological vestiges extend over a surface of at least 1 km². According to local informants, there are three *aguadas* in the area.



Figure 2. Stela at El Mameyal, looking east.

La Victoria

In the vicinity of the village of La Victoria there is a badly ruined and looted structure rising about 8 m above the surrounding ground. At the west base of what seems to have been an administrative building or a high-rank residence we found several finely dressed stone blocks and cylinders, apparently fallen elements of the façade. The front faces of two blocks, whose dimensions are approximately 60 cm × 40 cm × 20 cm and 30 cm × 15 cm × 20 cm, display geometric designs carved in relief and consisting of triangles and rectangles ([Figure 3](#), [Figure 4](#), [Figure 5](#)). Remains of an apron molding were observed in one part of the ruin. Some low mounds are scattered in the surroundings, covering an area of about 3000 m². About 200 m to the southwest there is a relatively large and easily accessible cave containing water.



Figure 3. La Victoria, stone blocks and cylinders at the largest structure.



Figure 4. La Victoria, a stone block with geometric decoration carved in relief.



Figure 5. La Victoria, a stone block with geometric decoration carved in relief.

Altar de los Reyes

The site is located in the *ejido* Ley de Fomento Agropecuario. The main architectural complex was visited in 1998 and recorded with the name Zapote Bobal, which corresponds to the land lot on which it lies (Šprajc and Suárez 1998b: 106f). Detailed surveys in 2002 revealed that the area with monumental architecture is notably more extensive than we had supposed. In view of the evident importance of the site, indicated by both its size and several sculpted monuments, and in order to avoid confusion with the archaeological site of Zapote Bobal situated in Guatemala, we decided to change the name of the one in Ley de Fomento Agropecuario to Altar de los Reyes, making reference to the site's most extraordinary monument (*infra*).

Main Complex

The remains of what evidently constituted the urban core of the ancient settlement occupy gently elevated lands south of the village of Ley de Fomento Agropecuario. The

structures are concentrated in two architectural groups arranged along slightly clockwise skewed north-south axes. Their central parts correspond to the East and West Acropolis, separated by a relatively flat and apparently empty space about 70 m wide, possibly a large plaza ([Figure 6](#) and [Figure 7](#)).

The West Acropolis seems to have been the most important architectural compound of the ancient city. A roughly rectangular platform, which at its northwestern corner reaches a height of nearly 10 m above natural ground, supports various buildings enclosing a plaza. Structures 12 and 13 on its east and west sides exhibit a relatively complex configuration; their central mounds rise about 11 and 17 m, respectively, above the plaza, whose sides measure around 60 and 80 m. The north and south flanks of the plaza are occupied by lower elongated mounds. Structures 16a and 16b, parallel mounds in the plaza just north of the West Acropolis, seem to be remains of a ballcourt ([Figure 6](#) and [Figure 7](#)).



Figure 6. Altar de los Reyes, map of main complex.

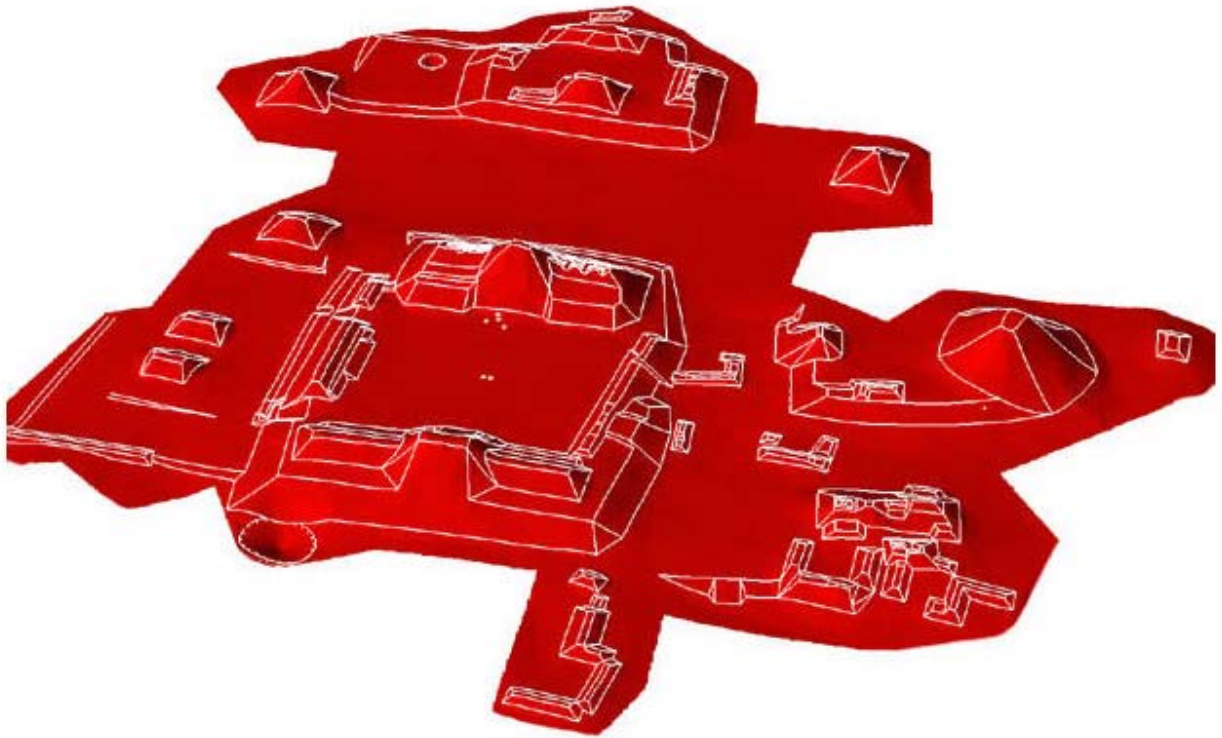


Figure 7. Perspective view on the main complex of Altar de los Reyes, looking east (digital model by Tomaž Podobnikar).

The highest structure, a pyramidal mound about 20 m high, is situated almost at the southern extreme of the west group. The original shape of the badly ruined building cannot be recognized. Apparently the stairway was on the east side, while the structure's orientation seems to be around 25° south of east, possibly solstitial. The masonry consists of relatively large and roughly cut stones.

The East Acropolis, smaller than the one to the west, is a platform with a mean height of about 5 m, supporting a plaza with several mounds. Structure 19 on the west side rises nearly 10 m above the plaza level. Of comparable size are Structures 18 and 22, located north and south of the East Acropolis.

Smaller mounds extend to the west and southeast of the core area shown in Figures 6 and 7. A voluminous structure built on a platform lies around 60 m southeast of the East Acropolis and 90 m east of Structure 22. Other mounds arrayed in patio groups continue further to the southeast; walking in that direction, we found them up to a distance of 180 m from the East Acropolis.

Two depressions, roughly circular in shape, call attention in the core area; one, with a diameter and depth of around 10 m and 2 m, respectively, is located upon the low platform immediately north of the East Acropolis, while the other, about twice as large, at the northwest base of the West Acropolis ([Figure 6](#) and [Figure 7](#)). These may be reservoirs for water storage and/or depressions caused by extraction of building

material (for analogous cavities at La Milpa it was suggested they had both functions: Tourtellot *et al.* 1993: 102). According to the owner of the land lot occupied by the core area of Altar de los Reyes, none of the two depressions holds water for more than a few days. However, the same informant commented that a very similar cavity, located among the mounds about 180 m southeast of the East Acropolis, retains the water accumulated during the rainy season up to March or April. It should be added that the nearest *aguada* lies about 1 km northwest of the core area of the site.

A special importance of this site is suggested not only by its size but also by its sculpted monuments. Stela 1, broken in two parts lying on the plaza of the West Acropolis, in front of Structure 13, was reported in 1998; the relief carving on its front was described in the report of that field season (Šprajc and Suárez 1998b: 106f, figs. 3-5), while the hieroglyphic text on the opposite face was drawn and interpreted by Nikolai Grube (Šprajc 2001: [Appendix](#)).



Figure 8a. Altar de los Reyes, fragment of Stela 2.

In 2002, during the topographic survey, we found a fragment of another stela, to which we assigned the number 2, at the west base of Structure 1. The fragment, measuring around 50 cm by 60 cm by 23 cm, preserves relief carving on its both faces (Figure 8). To prevent its disappearance we transported the monument to the village of Ley de Fomento Agropecuario and stored it, together with Altar 3 (*infra*), in a space especially destined for that purpose.

Plain Altars 1 and 2, reported in 1998 (Šprajc and Suárez 1998b: 106), lie in the immediate neighborhood of Stela 1. Other two altars were found in 2002 in the center of the same plaza. While clearing the area for topographic measurements, we observed an apparently worked stone projecting from the ground. Upon removing the leaves, undergrowth and a thin layer of humus, we uncovered the rim of a round altar and parts of a hieroglyphic inscription on its lateral surface. In view of the intensity of looting in the area we decided to protect the monument and transport it to Ley de Fomento Agropecuario.



Figure 8b. Altar de los Reyes, fragment of Stela 2.

When more earth was removed, the stone proved to be a fragment representing approximately a half of what must have been the complete altar, to which we assigned the number 3. Since minor fragments, some with glyphs, were irregularly scattered in the surrounding area, we realized the situation had to be recorded with all the necessary detail. During a small-scale excavation directed by Daniel Juárez Cossío, a large number of small fragments pertaining to the same monument were recovered. Its disintegration must have been a consequence of a prolonged destructive action of roots of the trees. Two stone fragments pertaining to Altar 4 were found immediately to the north; parts of a relief carving are preserved near the edge of its badly eroded upper face ([Figure 9](#)). Late Classic Tepeu complex ceramic fragments were found in the area of Altar 3, while Altar 4 was associated with Early Classic Tzakol sherds. Since the area of Altar 4 was not excavated satisfactorily, the two fragments, upon concluding the excavation, were covered again and left *in situ*. All the recovered fragments of Altar 3, however, were transported to the village of Ley de Fomento Agropecuario and deposited, together with the fragment of Stela 2 (*supra*), in a hut disposed for their protection. On a wooden framework filled with a layer of sascab (limestone sand) we managed to assemble the greater part of Altar 3, whose average diameter and thickness are about 85 cm and 30 cm, respectively.

The remains of the relief carving on the upper face represent the upper body of a person looking left, from the observer's viewpoint. Some eroded glyphs, a numeral 13 being one of them, can be seen beneath the personage and near the edge of the altar's upper face ([Figure 10](#)). The inscription along the lateral surface, which was restored to about 70%, is much better preserved. Most of it consists of a series of emblem glyphs; while only those of Calakmul, Tikal, Palenque, Edzná and Motul de San José are clearly legible, originally they must have been thirteen (see [Figure 11](#), and Nikolai Grube's interpretation in [Appendix 2](#)). The monument, making reference to such a large number of Maya polities, is entirely unique: recall that the texts on Stela A of Copán and Stela 10 of Seibal, which also include various emblem glyphs, list only four each. Hopefully more pieces can be reincorporated into the monument during the process of restoration, allowing a more comprehensive understanding of the whole text.



Figure 9. Altar de los Reyes, detail of Altar 4.



Figure 10. Altar de los Reyes, Altar 3, upper face.



Figure 11a. Altar de los Reyes, detail of Altar 3, with emblem glyphs of Tikal and Palenque.



Figure 11b. Altar de los Reyes, detail of Altar 3, with emblem glyphs of Edzná and Motul de San José.

Southeast Group

A prominent elevation located about 900 m southeast of the main complex is surmounted by a pyramidal mound, whose eastern slant merges with the steep natural slope of the hill, while on the west side it rises 12 m above a small plaza enclosed by low mounds.

The most important compound of the Southeast Group sits on a relatively flat part of the hillside, at a distance of about 150 m from the hilltop in a north-northeastern direction. Various elongated mounds built on a platform enclose a plaza measuring about 20 m by 20 m ([Figure 12](#) and [Figure 13](#)). The distance in straight line from here to the structures at the southeastern extreme of the main complex of the site (southeast of the area shown on the map in [Figure 6](#)) is less than 600 m.



Figure 12. Altar de los Reyes, map of Southeast Group.

The south side of the plaza is defined by Structure 1, a massive pyramidal mound topped by a triadic group and reaching a total height of nearly 20 m above the plaza level. Its orientation, very similar to those of the other mounds, is practically cardinal. Remains of an inset stairway ascending from the plaza to the upper platform can be seen on the northern slope of Structure 1. The shape of the ruin indicates the building had inset corners ([Figure 12](#) and [Figure 13](#)). The triadic group suggests that the structure, similar both to Structure 2 of Las Delicias (Šprajc 2001) and to Structure 59 of

Nakbé (Hansen 1998: 77ff, Fig. 19b), may be of a Late Preclassic date². Some architectural elements are exposed in looters' trenches and tunnels.

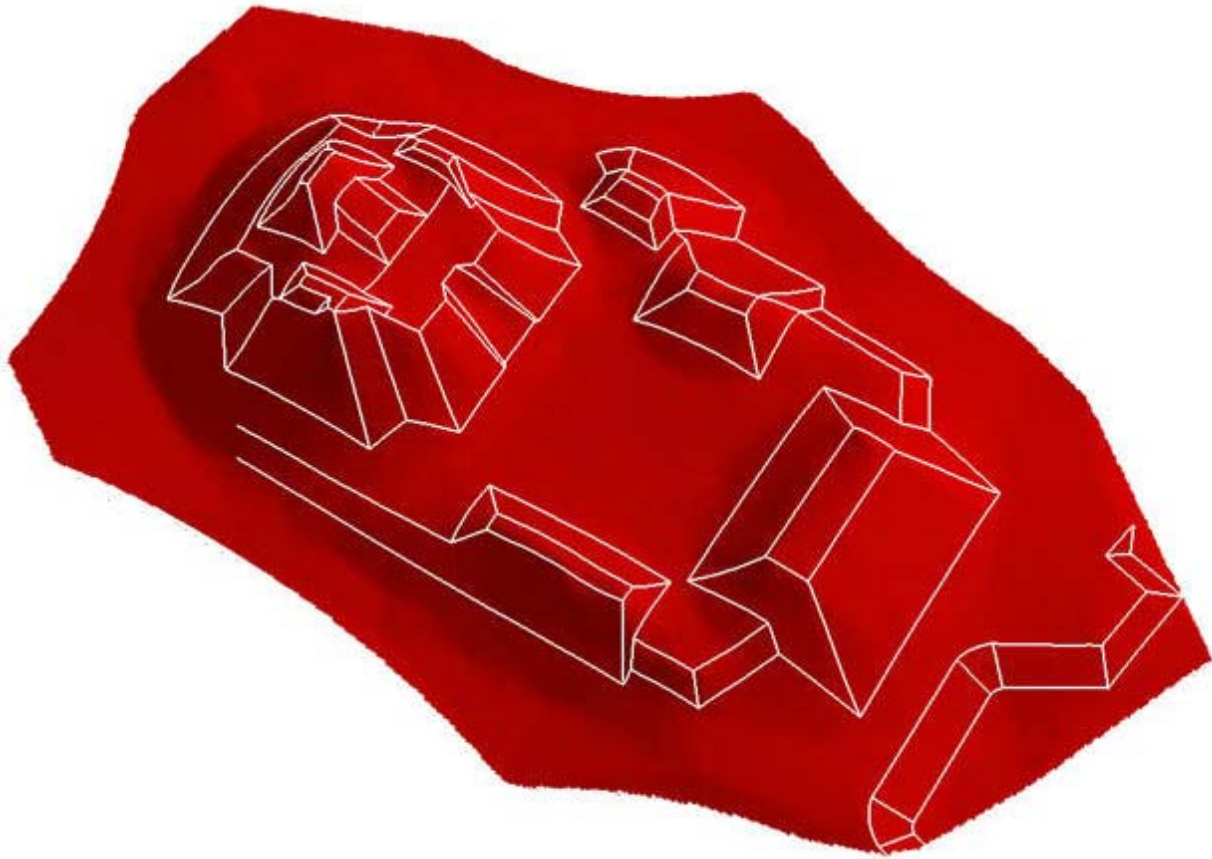


Figure 13. Perspective view on Altar de los Reyes, Southeast Group (digital model by Tomaž Podobnikar).

At the north base of Structure 1, at the entrance to a looters' tunnel, we found a fragmented stone block with a rather coarse engraving, which represents a sideview of the upper part of a human figure, apparently smoking a cigar ([Figure 14](#)).

At least 5 minor mounds form patio groups, probably a residential compound, approximately 100 m southeast of Structure 1. Down the slopes of the hill to the northeast, about 70 m from the acropolis, there is a roughly rectangular cavity with sides around 20 and 30 m long. Smooth surfaces observed on parts of the exposed limestone bedrock seem to have been cut artificially, suggesting this may have been the place for extracting the building material.

² Another triadic group in southeastern Campeche had been found at Mucaancah (Šprajc *et al.* 1997a: 8f, Fig. 3; 1997b: 39ff, Fig. 8).



Figure 14. Altar de los Reyes, Southeast Group, stone block with a carving.

El Chismito

The site extends on gently elevated terrains south of the aguada of El Chismito, which lies a few kilometers northeast of the former central *chiclera* Villahermosa in the Calakmul Biosphere Reserve. The mounds, largely between 3 and 6 m high, are disposed in quadrangles and patio groups covering at least 30 hectares. A few mounds have heights of up to 10 m.

In the middle of a plaza, defined on its western flank by a massive structure of rectangular ground plan and some 8 m high, there is a badly eroded standing stela, whose height above the plaza level, width and thickness are 1.4 m, 1 m and 65 cm, respectively ([Figure 15](#)). There seem to be remains of a relief on its south face, but no particular motif can be discerned. About 4 m south of the stela a worked stone is lying, badly deteriorated and embraced by roots of a tree, probably another stela.

Some Chicanel and Tzakol sherds, indicating occupation in the Late Preclassic and Early Classic, were found in looters' trenches.



Figure 15. Stela at El Chismito, looking north.

Los Tambores

The site, likewise in the Calakmul Biosphere, occupies slightly elevated lands several kilometers east-southeast of the abandoned chicle camp of Villahermosa and southwest of the *aguada* Los Tambores.

The largest structure, dominating a plaza to the south, consists of a 10 m high rectangular platform and the upper structure, which rises on the northern side of the platform to a height of about 20 m above the surrounding natural ground. The area to the east, up to a distance of about 400 m, is occupied by quadrangles with mounds up to 8 m high. Smaller mounds extend also to the north, west and south. Some Early Classic Tzakol pottery fragments were collected.



Figure 16. Los Tambores, rectangular chultun.

Some 100 m northwest of the main structure an uncommonly shaped *chultun* was found. Its opening is a rectangle of 1.6 m by 0.47 m ([Figure 16](#)), while the underground chamber, cut in the bedrock and also of rectangular ground plan, was evidently much wider; it is partly destroyed and filled with earth up to a distance of 1 m from the ceiling, but its smoothly cut walls and rounded corners can still be observed.

Balakbal

Several persons, replying to our inquiries about the archaeological sites lying within the Calakmul Biosphere Reserve, mentioned some large ruins known as Jerusalén. Comparing their indications about the site's location with the data given by Ruppert and Denison (1943: 65; Ruppert 1934: 95) for Balakbal and the nearby aguada of Jerusalem, we began to suspect the latter site and the one our informants were talking about were one and the same. In order to check its location and the present state of architecture and sculpted monuments, we decided to visit it.

We did get to the *aguada* of Jerusalén, which has some 50 m in diameter, but the attempts of the persons who accompanied us to find the ruins in the surrounding jungle

were futile. So we decided to search for the coordinates given for the site by Ruppert and Denison (1943: 65). Employing a GPS navigator, we headed southwest, passed by several low mounds and a *chultun* and, at a distance of about 1300 m from the *aguada*, came upon a massive construction we soon identified as Structure VIII of Balakbal. The coordinates determined by Ruppert and Denison proved to be surprisingly accurate, falling barely some 400 m south-southwest of Structure VI (the highest pyramid of the site).

Since a map of the site and a detailed description of structures and monuments were published by Ruppert and Denison (1943: 65-68, 144f, Figs. 80-84, pls. 25-27, 69), I will only report on the alterations the site has suffered after their visit. It has been badly looted, but the sculpted monuments are fortunately still there; we took photographs of all of them.

Stela 1 is lying at a looters' trench in the plaza in front of Structure VIII, i.e. on the spot reported by Ruppert and Denison (1943: 67, 144f, pl. 69). Likewise, Altar 1, though fragmented, is still in its place, a few meters west of Stela 1 (*cf. ibid.*).



Figure 17. Balakbal, Structure V, looking south along the passage connecting north and south rooms; Stela 2 is on the left (*cf. Ruppert and Denison 1943: pl. 16d*).

Stelae 2 and 3 are still in Structure V ([Figure 17](#) and [Figure 18](#)), but the former was slightly moved from the position documented by Ruppert and Denison (1943: 67, 144f, Fig. 83, pl. 26 c & d). The west wall of the passageway connecting the north and south rooms of the structure is traversed by a vaulted entrance unearthed by looters (Ruppert did not see it, *cf. ibid.*: 67, Fig. 83), and two round altars can be seen partially exposed just below it ([Figure 19](#)); their placement under the floor corroborates Ruppert and Denison's (1943: 67, 144) conclusion, based on the conditions of the carved faces of the two stelae and their positions with regard to the walls, that Structure V is secondary and that both monuments had stood there for a long time before it was constructed. It is

now evident that both stelae had their respective altars and that, at some point, the four monuments were covered by Structure V.



Figure 18. Balakbal, Structure V, south room with Stela 3, looking northwest.

Structures II and IV have been severely damaged by looters' trenches, and only few of the architectural details observed by Ruppert and Denison (1943: 65f, Figs. 80 & 81, pls. 25a, 26a, 69) remain visible. Parts of the masonry construction at the southeast corner of Structure VI, the highest pyramid of the site, are still exposed (*cf. ibid.*: 66f, Fig. 82, pls. 25 c & d).

Stela 4 and the corresponding altar, which were on the plaza immediately north of Structure XII (*ibid.*: 67f, 145, pl. 69), either disappeared or (more likely) remained concealed under the material extracted from a huge looters' trench excavated in the north slope of the adjacent building. Stela 5, the largest and best preserved of the site, originally stood in a room upon Structure XII (*ibid.*: 68, 145, Fig. 84, pls. 57 and 69), but was shoved down by the looters and is now lying on the south slope of the structure near its base. The inscriptions, for which Stela 5 is particularly important (*cf. Thompson 1940*), are on the exposed lateral faces and apparently have not suffered major damage ([Figure 20](#)).



Figure 19. Balakbal, Structure V, doorway in west wall and two partially exposed altars; view to the east.



Figure 20. Balakbal, Stela 5, looking northwest.

Altamira

The search for Altamira, also reported by Ruppert and Denison (1943: 42-45, Figs. 54-57, pl. 14a), was more complicated. The available informants did not know of it, while Ruppert and Denison's data about its location proved to be less reliable than in the case of Balakbal. Describing their discovery of the site, they mention that "the ruins are most easily reached from the camp of Alta Mira³ by proceeding along the Alta Mira–Central Buenfil trail for about an hour, and then to the left through the bush for 15 or 20 minutes" (*ibid.*: 42). Furthermore, a comment in their map of the site specifies the distance and bearing to the aguada and the camp of Altamira to be 1500 m and S32°20'E, respectively. This information indicates clearly that the core area of the ancient city was found northwest of the chicle camp, but disagrees with the coordinates they determined for the site (*ibid.*: 42, fig. 54), since the latter fall some 1100 m southwest of the camp and the *aguada* of Altamira.

Assuming there was an error in the determination of coordinates, rather than discarding the rest of the data about the site's placement, we did not examine the area corresponding to the coordinates but rather the terrain northwest of the *chicle* camp. Aside from the structure on the west side of the trail to Las Delicias, situated 2 km away from the Altamira camp ([Figure 21](#)) and reported by Ruppert and Denison (1943: 44, Fig. 57), we only found some minor mounds. Approaching the lands of La Unión 20 de Junio, an *ejido* abandoned a few years ago, we realized the site of Altamira might have been identical to the ruins of La Unión, which an inhabitant of the *ejido* Once de Mayo had mentioned to us. Trying to recall his vague indications, and upon scouring extensive terrains of dense secondary growth (*acahuales*) during many hours, we finally managed to find the site. Both the coordinates we determined and the distance and azimuth to the abandoned chicle camp of Altamira differed notably from the data given by Ruppert and Denison⁴.

The site is badly looted. Of the few architectural details recorded by Ruppert and Denison (1943: 42f, Figs. 54-56), only some on Structure XII survive. However, practically all of the sculpted monuments continue to be on the reported spots (*ibid.*: 42-44, Fig. 54). We recorded their dimensions and photographed them all (*cf.* [Figure 22](#) and [Figure 23](#)).

³ The name of the abandoned chicle camp is nowadays being written as "Altamira".

⁴ These errors notwithstanding, it is only fair to emphasize that Ruppert and Denison's data about the locations of the sites they report are, for the most part, admirably accurate, particularly if we consider the circumstances they worked in and the instruments they had at their disposal for determining geographic coordinates by astronomical observations. For the sake of illustration, let us recall that an error of 1 arc minute in the vertical angle reading, very easy to commit with theodolites or transits common in those times, corresponds in the geographic latitude determination to a distance of nearly 2 km.



Figure 21. Altamira, structure 1.5 km southeast of the site's core, looking west.



Figure 22. Altamira, Stela 2, looking south.



Figure 23. Altamira, Stela 14, looking west.

At the position of Stela 5 marked on Ruppert and Denison's site plan (1943: Fig. 54), i.e. south of the south plaza, we found no monument; Stela 5 must be the one lying some 50 m eastward and just south of Structure IV, on the spot where no monument is indicated on the map. Stelae 6, 7, 8, 9 and 10 and Altars 7 and 8 have been moved from their original positions by looters, but they are still in front of Structure V (*ibid.*). Stela 11, which we did not see, is probably under a pile of material extracted from the adjacent looters' trench.

As Ruppert and Denison (1943: 42) noted, the monuments of Altamira are badly eroded. On Stelae 4, 9, 14 ([Figure 23](#)) and the one we identified as Stela 5, hardly more than traces of relief carving and glyphic blocks can be distinguished; there are, however, some relatively well preserved glyphs on one part of Stela 10 exposed by looters ([Figure 24](#)).

An *aguada* having some 80 m in diameter is located less than 500 m north of the core area of the archaeological site; to the east the terrain descends to an extensive *bajo* about a kilometer away.



Figure 24. Altamira, detail of Stela 10.

Other sites

In addition to those discussed above, a few minor sites were recorded or reexamined in 2002. Following are only brief remarks on some of them.

We inspected the group of mounds mentioned by Ruppert and Denison (1943: 29) in relation with the "aguada of Misterioso" (the name is, in fact, La Misteriosa). The group, placed about 400 m east of the *aguada* and just north of the village of Ley de Fomento Agropecuario, consists of 15 to 20 mounds disposed in patio groups and dominated by a 7 m high pyramidal structure. Other low mounds are found both within the village and in the surrounding area.



Figure 25. Guillermo Prieto, structure with a stairway, looking northeast.

At Guillermo Prieto, recorded as a small site with a cave in 2001, another group of mounds was visited in 2002. Remains of a stairway were observed on the west side of a relatively small mound elongated in a roughly north-south direction ([Figure 25](#)).

The site of El Carmen is situated on gentle natural slopes about 3.5 km northeast of the modern village El Carmen II. Architectural remains, while apparently covering a rather small area, include a 17 m high pyramidal mound, which rises on the west side of a

plaza enclosed by elongated mounds on its east and south flanks. Other mounds arrayed in patio groups are scattered in the neighborhood⁵.

The relatively small site of La Retranca is situated approximately 13 km west of the village Once de Mayo, within the Calakmul Biosphere Reserve. Several patio groups consisting of low mounds are distributed upon a natural elevation elongated in a north-south direction. The highest structure, a pyramidal mound about 10 m high, occupies the northern extreme of the area, overlooking a plaza to the south. The ceramic fragments collected in looters' trenches pertain to the Late Preclassic Chicanel and Early Classic Tzakol complexes. The architectural remains, including another group of mounds about half a kilometer to the south, cover an area of about 0.5 km².

Concluding Remarks

The sites with architectural remains recorded so far in southeastern Campeche all share some common properties. Structures are regularly arranged in patio groups, which occur in structure-focused or group-focused clusters (*cf.* Ashmore 1981: 51ff, Figs. 3.5 & 3.6). Elaborate patio groups often have a major structure on the east side, exhibiting the configuration labeled Plaza Plan 2 by Becker (1971; 1991). Large courtyards or plazas are present at major sites. While *chultuns* are commonly found within the sites, and *aguadas* nearby, it should be recalled that the artificial depressions at Altar de los Reyes may represent another relic of water management techniques.

All the archaeological sites known so far in the area of reconnaissance pertain to the Maya culture, largely to the Classic period (ca. A.D. 250–900), though vestiges of earlier occupation, including Late Preclassic monumental architecture, have also been found (*cf.* Šprajc *et al.* 1996; 1997a; 1997b; Šprajc and Suárez 1998a; 1998b; Šprajc 2001). Architectural remains are remnants of structures and spaces that had residential, religious, administrative and other functions. Although standing architecture is rarely preserved, the size and characteristics of architectural and other remains at several sites suggest they can be defined as "centers" (Ashmore 1981; Willey 1981: 391ff); a few of them were evidently major foci of regional territorial organization.

The most interesting of the sites recorded in the 2002 season is undoubtedly Altar de los Reyes, both because of the eponymous altar with its extraordinary series of emblem glyphs and because of the size and configuration of what must have been an extensive and long-living urban center. It may be recalled that numerous clusters of monumental architecture, recorded in 2001 with the name El Sacrificio (Šprajc 2001), are scattered in the surrounding area with a radius of some 3 km. Altar de los Reyes is thus the most

⁵ Due to a negative attitude of the inhabitants of El Carmen II, we could not survey the lands pertaining to their *ejido* in a satisfactory manner, and thus were not able to establish the eventual relationship between this site and that of Placeres; the latter is located near the village, which was founded on the place of the former *central chiclera* of Placeres (Morley 1937: pl. 179; M.A.R.I. 1940; Ruz 1945: 109; Müller 1959: 57). While we heard of some large mounds and a carved stela, it may also be recalled that a stucco façade was taken away from this site years ago; after appearing in New York for sale, it was fortunately returned to México and is now exhibited in the *Museo Nacional de Antropología* in México City (Mayer 1988; 1992; Freidel 2000).

recent, though not the only proof of the importance of southeastern Campeche for archaeological investigations, as well as an example of what further reconnaissance expeditions, particularly in the largely unknown Calakmul Biosphere Reserve, may still expect to find.

List of Figures

****NOTE:** The maps of particular sites are in an AutoCAD format, which requires the Autodesk® Express Viewer. With the software installed you will be able to pan across and zoom into selected areas of the maps by right clicking your mouse and using the features in the menu. Click [here](#) to download for the latest version of Autodesk® Express Viewer from Autodesk.com.

[Figure 1.](#) Location of archaeological sites in southeastern Campeche, México.

[Figure 2.](#) Stela at El Mameyal, looking east.

[Figure 3.](#) La Victoria, stone blocks and cylinders at the largest structure.

[Figure 4.](#) La Victoria, a stone block with geometric decoration carved in relief.

[Figure 5.](#) La Victoria, a stone block with geometric decoration carved in relief.

[Figure 6.](#) Altar de los Reyes, map of main complex. (*click [here](#) to download Autodesk® Express image)

[Figure 7.](#) Perspective view on the main complex of Altar de los Reyes, looking east (digital model by Tomaž Podobnikar).

[Figure 8a.](#) Altar de los Reyes, fragment of Stela 2.

[Figure 8b.](#) Altar de los Reyes, fragment of Stela 2.

[Figure 9.](#) Altar de los Reyes, detail of Altar 4.

[Figure 10.](#) Altar de los Reyes, Altar 3, upper face.

[Figure 11a.](#) Altar de los Reyes, detail of Altar 3, with emblem glyphs of Tikal and Palenque.

[Figure 11b.](#) Altar de los Reyes, detail of Altar 3, with emblem glyphs of Edzná and Motul de San José.

[Figure 12.](#) Altar de los Reyes, map of Southeast Group. (*click [here](#) to download Autodesk® Express image)

[Figure 13](#). Perspective view on Altar de los Reyes, Southeast Group (digital model by Tomaž Podobnikar).

[Figure 14](#). Altar de los Reyes, Southeast Group, stone block with a carving.

[Figure 15](#). Stela at El Chismito, looking north.

[Figure 16](#). Los Tambores, rectangular *chultun*.

[Figure 17](#). Balakbal, Structure V, looking south along the passage connecting north and south rooms; Stela 2 is on the left (*cf.* Ruppert and Denison 1943: pl. 16d).

[Figure 18](#). Balakbal, Structure V, south room with Stela 3, looking northwest.

[Figure 19](#). Balakbal, Structure V, doorway in west wall and two partially exposed altars; view to the east.

[Figure 20](#). Balakbal, Stela 5, looking northwest.

[Figure 21](#). Altamira, structure 1.5 km southeast of the site's core, looking west.

[Figure 22](#). Altamira, Stela 2, looking south.

[Figure 23](#). Altamira, Stela 14, looking west.

[Figure 24](#). Altamira, detail of Stela 10.

[Figure 25](#). Guillermo Prieto, structure with a stairway, looking northeast.

Appendix 2 by Nikolai Grube

[Figure 1](#). Altar de los Reyes, Altar 3, upper face (drawing by Nikolai Grube).

[Figure 2](#). Altar de los Reyes, Altar 3, inscription on the lateral surface (drawing by Nikolai Grube).

Appendix 1: Emergency consolidation works at Mucaancah

by Daniel Juárez Cossío and Adrián Baker Pedroza

During the reconnaissance works we were informed that some looters' trenches and tunnels recently excavated at Mucaancah, a large site recorded in 1996 (Šprajc *et al.* 1997a: 8ff; 1997b: 40ff), seriously endangered the stability of two structures. We thus decided to accomplish the most indispensable consolidation works. Some interesting information was also obtained as a by-product of these interventions, of which only a brief summary is presented here.

Within the North Complex of Mucaancah there is a large pyramidal structure built on the north side of the Acropolis and topped by a triadic group, which occupies the northern part of the upper platform (cf. Šprajc *et al.* 1997a: 8, Fig. 3; 1997b: 39, Fig. 8). A tunnel about 10 m long and 1 m wide was excavated from the southwest corner to the center of the east mound of the triadic group. The core fill of the structure, which rises about 4 m above the platform, was observed in the tunnel and consists of large stone blocks mixed with lime and earth. To prevent the structure from collapsing, we filled up the tunnel with stones removed by looters and lying in the immediate neighborhood. Before covering the exterior part of the trench, we tried to define and record parts of the façade and the associated architectural elements. The structure, apparently a single-phase building, was found to rest on a floor covered with a white colored, about 4 cm thick stucco layer. The area around the southwest corner of the structure had been destroyed by the looters' trench, but we were able to define a small part of the west façade, oriented approximately 6° east of magnetic north, with remains of a stairway built of finely cut stones, as well as a short section of the east-west running wall that constitutes the south edge of the terrace that supports the triadic group and rises about 80 cm above the southern part of the platform. Before covering the excavated area with gravel, stones and earth, we protected the exposed architectural elements with a layer of sand and secured the stability of the construction by means of dry walls.

The other structure badly damaged by looters is located in the South Complex of Mucaancah: a large tunnel was excavated into the mound on the east flank of the East Acropolis (cf. Šprajc *et al.* 1997a: 9, Fig. 4; 1997b: 41, Fig. 9). Starting their excavation at the west base of the structure, the looters destroyed parts of a stairway and perforated the walls of two vaulted rooms. Since both rooms were filled up with stones, and considering their position with respect to the level of the plaza on the acropolis, they must have pertained to a substructure. The appearance of the vaults, which are built of roughly cut stones joined with mortar poor in lime, is rather rustic. At the east extreme of the tunnel, which is about 10 m long in total, we observed parts of a wall built of dressed stones and most probably belonging to the east face of the substructure. Small-scale excavations were carried out in the area at the west base of the structure, around the entrance to the tunnel, with the purpose of recording stratigraphic details and defining the relations between the construction elements and the adjacent plaza. Finally, the exposed architectural elements were protected and consolidated, following the procedure applied in the other structure and summarized above.

The ceramic material recovered at both structures belongs to the Late Preclassic Chicanel, Early Classic Tzakol and Late Classic Tepeu complexes. Detailed analyses of small finds and their relationship with stratigraphic units are still under way.

Appendix 2: Epigraphic Analysis of Altar 3 of Altar de los Reyes

by Nikolai Grube

In August 2002 my friend Antonio Cuxil Guitz and I had the opportunity to visit the ejido Ley de Fomento Agropecuario, south of Xpujil, where Altar 3 from the nearby archaeological site Altar de los Reyes is being kept. Following is a brief analysis of the iconography and, particularly, of the important hieroglyphic text on this altar.

The altar is a circular monument, broken in a number of fragments. While many larger pieces were reassembled, the original positions of a number of smaller fragments have not been determined. The restored altar includes most fragments that exhibit vestiges of sculpture, but it must be recognized that the monument is incomplete and that significant portions of iconography on the upper face, as well as of the hieroglyphic text, are missing. The relief is of high quality, but on various parts the details have been badly eroded.

The upper face of the altar has suffered much more erosion than the lateral surface. A human figure sitting on a throne and looking to the left can be distinguished. The support of the throne had a hieroglyphic inscription, of which only two blocks can be discerned: the first one reads **K'UHUL-ka-ba**, *k'uhul kab*, "divine earth" or "sacred lands", and the second one **UXLAJUN-ka?-?**, "thirteen ?" ([Figure 1](#)). Even if the details of the second glyph no longer survive, it is very likely that a parallel construction is involved and that also the second glyph represented the word **ka-ba**, *kab* "earth", expressed syllabically. This reading is strongly supported by the hieroglyphic text running around the side of the monument.



Figure 1. Altar de los Reyes, Altar 3, upper face (drawing by Nikolai Grube).

The inscription on the lateral surface forms a continuous band of fourteen or fifteen blocks, without a clear indication as to where the reading of the text starts ([Figure 2](#)). Neither is a date present to initiate the text. Of the hieroglyphic blocks that occupied the space around the altar, only eleven are preserved. All these glyphs, except two, can be identified as emblem glyphs with the **K'UHUL** ("divine") element in front and the **AJAW** ("king") superfix. The two glyphs that do not correspond to this scheme very likely represent the beginning of the text. The first glyph is of foremost importance for the interpretation of the text, but unfortunately poses problems of reading. It consists of an "Ajaw" sign (though in this context it may have a different reading), which is followed by a sign for "throne" (also of unknown linguistic reading). Since the throne sign has a suffix *-il*, and the "Ajaw" seems to have the possessive prefix *u*, the entire construction forms a possessed noun, like "the royal throne of...", or "these are the royal thrones".

The following glyph is composed of **TAN** and **WINIK** logograms. The two superfixes of this block broke off. Possibly the glyph, when complete, represented the expression *chatan winik*, which is very common on the codex-style ceramics and can be also found in the position of toponyms or emblems in the hieroglyphic texts of Calakmul and Nakbé. It might represent the emblem glyph of Nakbé, or of a whole region between the basin of El Mirador, Calakmul and perhaps Altar de los Reyes. The glyphs following this one are all emblem glyphs of various states in central Maya Lowlands. Those of Calakmul, Tikal and Palenque are clearly recognizable. The Palenque emblem glyph is followed by one whose main sign is a water scroll. While this emblem has been found in various texts from different places, so far it has not been securely identified with any known archaeological site. The following part of the text is missing. Before it ends, with the glyph referring to the "royal throne", the inscription has three more emblem glyphs. The second is the emblem of Edzná (David Stuart, personal communication, November 2002). This glyph is not very well known, but appears in various texts at Edzná, particularly on the Hieroglyphic Stairway. It differs from the emblem glyph of El Perú, which is very similar, but is preceded by a head including another element in the shape of a fish head. The last emblem glyph is clearly the one of Motul de San José.

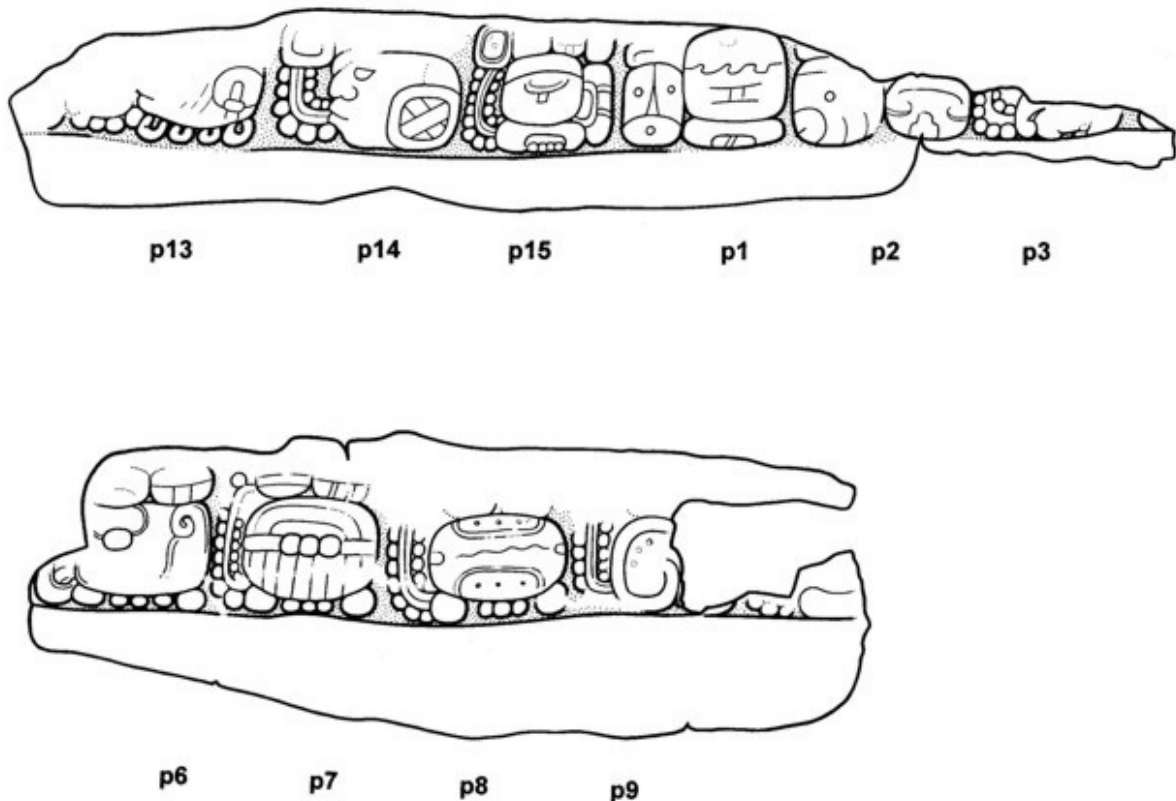


Figure 2. Altar de los Reyes, Altar 3, inscription on the lateral surface (drawing by Nikolai Grube).

The text of Altar 3 originally had a list of thirteen emblem glyphs. All of them, perhaps with the exception of the Palenque emblem, correspond to places in the surrounding area, or at least within the interaction sphere of Altar de los Reyes. Some important sites are missing: the emblem glyphs of Copán, Quiriguá, Cancuén, Caracol, Pusilja, Machaquilá etc. are not included. The reference to thirteen sacred places on the upper face of the altar can be interpreted as an introduction to the list of emblems of the sites, which may have been the seats of the most important and sacred kings from the point of view of Altar de los Reyes. The number thirteen must have had a cosmological significance and may have been considered as an ideal number of royal seats in the Maya Lowlands.

There is an alternative as to the reading order of the emblem glyphs. It is possible that the glyphs referring to royal thrones and the following **?-TAN?-WINIK** constitute the end of the text instead of its beginning. In this case the preceding thirteen emblem glyphs would have had the expression "...are the royal thrones of..." as an attribute. The clause would then have finished with **?-TAN?-WINIK**, which might have been the name for a panregional concept that included all the sites that are referred to. In any case, the list of emblems found on this altar is of great value for the reconstruction of political geography in the Maya Lowlands. The list presents an emic view of the sites considered to be the most sacred or powerful centers in a certain moment of Maya history.

Due to the lack of a date, the moment when the altar was sculpted cannot be established with precision. Of the monuments from Altar de los Reyes known so far, the only one with a date is Stela 1, which contains a Calendar Round date corresponding to 9.18.10.0.0 10 Ajaw 8 Sak (see Grube, [Appendix](#), in Šprajc 2001). Stilistically, the glyphs on Altar 3 and Stela 1 are very similar, and both monuments may have been originally associated. In this case the presented political panorama reflects the Maya world in the Late Classic period.

Sources Cited

Ashmore, Wendy

1981 Some issues of method and theory in Lowland Maya settlement archaeology. In: W. Ashmore, ed., *Lowland Maya settlement patterns*, Albuquerque: School of American Research – University of New Mexico Press, pp. 37-69.

Becker, Marshall Joseph

1971 "The identification of a second plaza plan at Tikal, Guatemala, and its implications for ancient Maya social complexity" (Ph.D. dissertation, University of Pennsylvania). Ann Arbor: University Microfilms.

1991 Plaza plans at Tikal, Guatemala, and at other Lowland Maya sites: evidence for patterns of culture change. *Cuadernos de Arquitectura Mesoamericana* no. 14:11-26.

Freidel, David

2000 Mystery of the Maya façade. *Archaeology* 53, no. 5 (Sept./Oct.):24-28.

García Cruz, F.

1991 Aktunkin: a Maya cavern in Campeche. *Mexicon* 13(3):45.

Hansen, Richard D.

1998 Continuity and disjunction: the Pre-Classic antecedents of Classic Maya architecture. In: S.D. Houston, ed., *Function and meaning in Classic Maya architecture*, Washington: Dumbarton Oaks, pp. 49-122.

Harrison, Peter D.

1981 Some aspects of Preconquest settlement in southern Quintana Roo, México. In: W. Ashmore, ed., *Lowland Maya settlement patterns*, Albuquerque: School of American Research – University of New Mexico Press, pp. 259-286.

M.A.R.I.

1940 *Archaeological sites in the Maya area: section IV, for use with "Index of Maya sites"*(revision of the F. Blom and O.G. Ricketson, Jr., map "Ruins in the Maya Area", 1924). New Orleans: Tulane University, Middle American Research Institute (map and card index on file).

Mayer, Karl Herbert

1988 Three unprovenanced Maya stucco masks. *Revindi: Revista Indigenista Latinoamericana* (Budapest) 1:48-61.

1992 A Maya stucco mask in Israel. *Mexicon* 14(6):112s.

Morley, Sylvanus Griswold

1937 *The inscriptions of Petén, vol. V, part 2: Plates*. Carnegie Institution of Washington Publication 437, Washington.

Müller, Florencia

1959 *Atlas arqueológico de la República Mexicana: Quintana Roo*, México: Instituto Nacional de Antropología e Historia.

Ruppert, Karl

1933 Explorations in Campeche. *Carnegie Institution of Washington Year Book* no. 32:89-92.

1934 Explorations in Campeche. *Carnegie Institution of Washington Year Book* no. 33:93-95.

Ruppert, Karl and John H. Denison, Jr.

1943 *Archaeological reconnaissance in Campeche, Quintana Roo, and Petén*. Carnegie Institution of Washington Publication 543, Washington.

Ruz Lhuillier, Alberto

1945 *Campeche en la arqueología maya*. México: Instituto Nacional de Antropología e Historia (Acta Anthropologica 1:2-3).

Šprajc, Ivan

1998 Stelae from Los Alacranes salvaged. *Mexicon* 20(6):115.

2001 ["Archaeological Reconnaissance in Southeastern Campeche, México: 2001 Field Season Report, with an Appendix by Nikolai Grube" \(Ms.\)](#). Crystal River: Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI).

Šprajc, Ivan, Florentino García Cruz, and Héber Ojeda Mas

1996 "Proyecto de Reconocimiento Arqueológico en el Sureste del Estado de Campeche, como parte de las funciones del INAH en el PROCEDE: Informe de la temporada julio-agosto de 1996". México: Instituto Nacional de Antropología e Historia, Archivo Técnico.

1997a Reconocimiento arqueológico en el sureste de Campeche, México: informe preliminar. *Mexicon* 19(1):5-12.

1997b Reconocimiento arqueológico en el sureste de Campeche. *Arqueología: Revista de la Coordinación Nacional de Arqueología del INAH*, segunda época, no. 18:29-49.

Šprajc, Ivan and Vicente Suárez Aguilar

1998a "Proyecto de Reconocimiento Arqueológico en el Sureste del Estado de Campeche, como parte de las funciones del INAH en el PROCEDE: Informe de la temporada febrero-abril de 1998". México: Instituto Nacional de Antropología e Historia, Archivo Técnico.

1998b Reconocimiento arqueológico en el sureste del estado de Campeche, México: temporada 1998. *Mexicon* 20(5):104-109.

Thompson, J. Eric S.

1936 Exploration in Campeche and Quitana [sic!] Roo and excavations at San Jose, British Honduras. *Carnegie Institution of Washington Year Book* no. 35:125-128.

1940 Apuntes sobre la estela número 5 de Balakbal, Quintana Roo. *Revista Mexicana de Estudios Antropológicos* 4(1-2):5-9.

Tourtellot III, Gair, Amanda Clarke and Norman Hammond

1993 Mapping La Milpa: a Maya city in northwestern Belize. *Antiquity* 67(254):96-108.

Willey, Gordon R.

1981 Maya Lowland settlement patterns: a summary review. In: W. Ashmore, ed., *Lowland Maya settlement patterns*, Albuquerque: School of American Research – University of New Mexico Press, pp. 385-415.