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Archaeological Research at Cotzumalhuapa, Guatemala



Research Year: 2000

Culture: Maya

Chronology: Late Classic

Location: Cotzumalhuapa, Guatemala

Sites: Bilbao, El Baúl and El Castillo

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Introduction

Recent research has substantially modified our understanding of the culture history, sociopolitical organization and ideology of ancient Cotzumalhuapa, one of the strongest and most innovative cultural and political centers of the Late Classic period in Southern Mesoamerica. Long known to scholars for its intriguing sculptural style (Gavarrete, 1929; Habel, 1878; Bastian, 1876; 1882; Eisen, 1888; E. Seler, 1892; Thompson, 1948; Parsons, 1967; 1969; Braun, 1976; Hatch, 1987), Cotzumalhuapa now emerges as a major urban center that encompassed the sites of Bilbao, El Baúl and El Castillo, together with settlements extending about 10 km². Knowledge of the sculptural style and writing system has grown significantly, with documentation of numerous previously unknown monuments (Chinchilla, 1996a; 1998a).

The long-term objectives of the Cotzumalhuapa Archaeological Project include (a) documentation of settlements in the Cotzumalhuapa Nuclear Zone, with emphasis on their spatial distribution, scale and integration; (b) detailed documentation of the Cotzumalhuapa sculptural corpus; (c) refinement of the local chronology and ceramic sequence with emphasis on the classic through colonial periods; (d) analysis of patterns of production and distribution of obsidian in the area; (e) documentation of peripheral centers, and refinement of current understanding of the distribution of settlements around the Cotzumalhuapa Nuclear Zone; (f) analysis of the regional role of Cotzumalhuapa within the general context of southern Guatemala and its broader relationship with other Mesoamerican societies.

The 2000 field season witnessed significant advances. Major effort was devoted to long overdue laboratory analysis of materials recovered in previous field seasons. Field research included (a) intensive reconnaissance around the El Baúl site, to determine the extent and distribution of settlements in the northernmost part of the Cotzumalhuapa Nuclear Zone; (b) mapping and test excavations at the site of Palo Verde, a major peripheral center with Cotzumalhuapa-style sculpture; (c) test excavations at colonial period sites within the Cotzumalhuapa archaeological area; (d) continued recording of monumental sculptures.

These activities ran parallel to a study of the Cotzumalhuapa causeway system, a network of stone-paved avenues that linked together the sites and settlements of the Nuclear Zone. This component was possible thanks to separate funding provided by the National Geographic Society (grant #6683-99). The causeway program demonstrated the existence of three major causeways, named after early pioneers in Cotzumalhuapa archaeology: (a) the Gavarrete causeway, about three kilometers long, that links together the sites of El Baúl and Bilbao; (b) the Habel causeway, possibly two kilometers long, that links the site of El Castillo with Golón, an important sector with monumental sculptures located one kilometer east of Bilbao; and (c) the Berendt causeway, about one kilometer long, which is an extension of the Gavarrete causeway, linking the sites of Bilbao and El Castillo. There are hints of the existence of other causeways. The existence of this formal system of communications among the major sites and settlement areas reinforces the interpretation of the Cotzumalhuapa Nuclear Zone as an articulated urban center. It also opens new questions in terms of the

functional relationship between the major centers of monumental architecture and sculpture and their surrounding settlements.

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Ceramic Analysis

Licenciado José Vicente Genovez undertook analysis of ceramics from several excavations at El Baúl, with the assistance of students from the University of San Carlos, Guatemala. Museo Popol Vuh kindly provided laboratory space. The specific objectives of ceramic analysis were (a) to elaborate and refine the typological analysis of Cotzumalhuapa ceramics; and (b) to selectively analyze excavated materials from previous field seasons, in attention to their chronological and functional significance. An important accomplishment was the analysis of materials from Operation EB4, centered on a large and elaborate domestic compound located about 300 m west of the El Baúl acropolis, which was partially excavated in 1997 ([Figure 1](#)).

Domestic compounds have received little attention in Cotzumalhuapa archaeology. The only precedents for this work are found in house structures partially excavated by Marion Hatch and Rolando Rubio (1986), and Chinchilla (1996a:349-384) in the environs of El Baúl and El Castillo. However, the residential compound found in operation EB4 was much larger and elaborate. Excavations revealed parts of at least four structures around a stone-paved patio, as described in Chinchilla and Antillón 1998 ([Figure 2](#)). The most elaborate structure, located on the northern side of the patio, stands on a 55 cm high stone-faced platform. A stone staircase with three steps was found on the southeastern corner of the structure, where two walls met ([Figure 3](#)). These walls oscillated between 0.75 and 1.0 m thick, and were faced with stones on both sides, at least on their lower part. The amount of fallen rubble suggests that there may have been two or three courses of stone facing, above which the wall was probably raised with unfaced clay or other perishable materials. A clay floor east of this building suggests the presence of a simpler structure aligned with the former, facing the enclosed patio. Two simpler buildings defined by stone banquets with no trace of stone walls were found on the southern side of the patio ([Figure 4](#)).

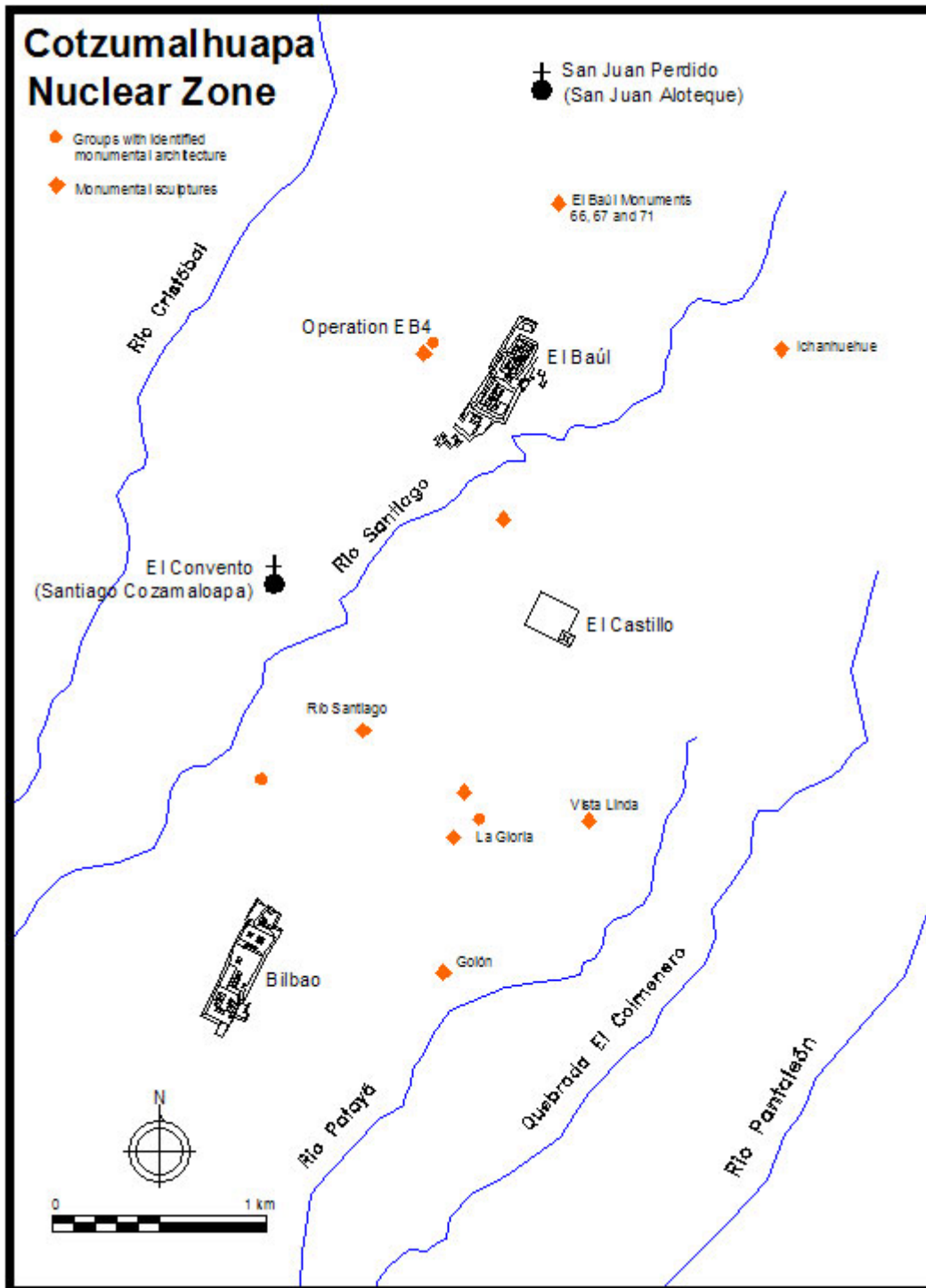


Figure 1. Map of the Cotzumalhuapa Nuclear Zone. (*can also be viewed in Autodesk® Express Viewer)

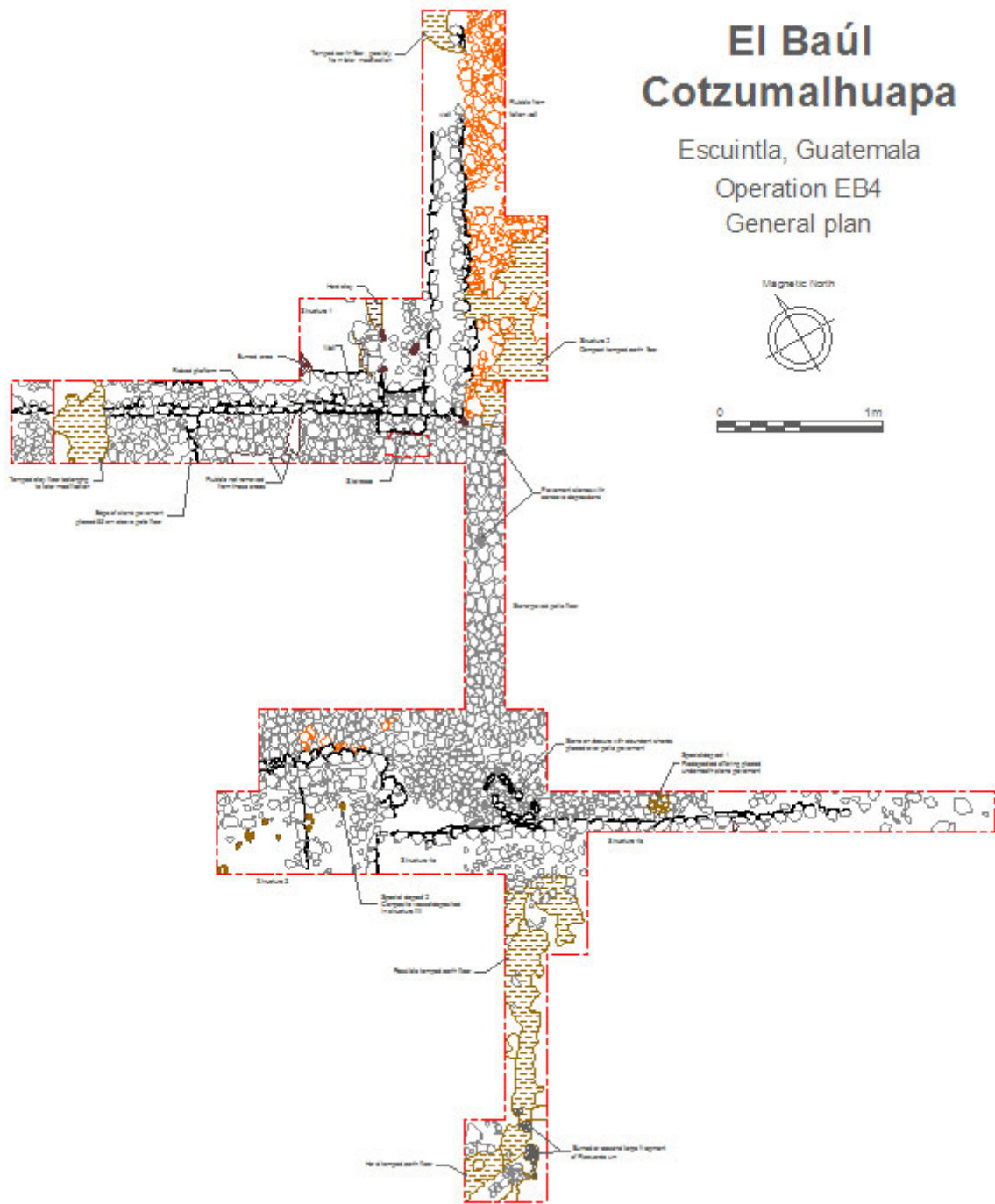


Figure 2. Excavation Plan of Operation EB4 (*can also be viewed in Autodesk® Express Viewer)

Analysis of ceramics and other materials from Operation EB4 provided support for the idea that this was indeed a domestic compound. The structures on the southern side of the patio produced large concentrations of ceramic refuse, associated with a fairly large

number of mano and metate fragments, suggesting that the activities that were carried out in this area included the preparation of food. In contrast, the more elaborate building on the northern side of the patio produced a much smaller amount of ceramic and lithic materials, suggesting a markedly different function, perhaps that of a living or administrative building. This functional interpretation of the compound has important implications for the study of ancient Cotzumalhuapa society, since it provides evidence on the organization of a residential compound that most probably housed residents of very high status, judging from its architectural elaboration.

Ceramic analysis also provided important chronological information on the constructional and occupational history of this compound. The entire complex was built and occupied during the Late Classic period. However, Middle Classic vessels were redeposited in an offering found underneath the stone-paved patio floor, suggesting a previous stage of occupation in the area. This offering included a Tiquisate vase, an Esmeralda bowl with annular base, a black vase deeply incised with a bird figure, and an obsidian projectile point. Despite the early appearance of the offering, an associated carbon sample provided a calibrated date of A.D. 670-998 (Beta 109013). Ceramic analysis also indicated a thin Postclassic occupation in the area, which most probably took place after the abandonment and concealment of the Late Classic buildings under soil layers resulting from the activity of the nearby Fuego volcano.

Analysis of ceramics from other excavations in the El Baúl area provides overwhelming evidence for a Late Classic dating for both the monumental compounds and residential areas around the site, perhaps extending into the beginning of the Postclassic period (ca. A.D. 650-1000). There are indications that the area was occupied at least since the Middle Classic, but interestingly, the evidence for Preclassic occupation is almost entirely absent. This is in marked contrast with the Bilbao site, where Parsons (1967) found a substantial amount of Middle and Late Classic pottery in mixed deposits. The absence of Preclassic sherds at El Baúl is also in contrast with the early Initial Series date inscribed on Monument 1, which corresponds to A.D. 29. Further excavations within the major architecture of the El Baúl acropolis may require a revision of these observations, but at present, the available evidence suggests that El Baúl Monument 1 was probably brought to the El Baúl acropolis from Bilbao, which appears to be the major Preclassic site within what would later become the Cotzumalhuapa Nuclear Zone, while the El Baúl and El Castillo sectors were thinly occupied until the Middle Classic period.



Figure 3. Staircase of Structure 1, Operation EB4



Figure 4. Excavation Trench in Operation EB4

Reconnaissance at El Baúl

Definition of the extents of the Cotzumalhuapa Nuclear Zone has remained unclear. A precise delimitation of the ancient settlements is hindered by the growth of modern urban developments in the archaeological area. This is especially true for the southernmost part of the Nuclear Zone, where the modern city of Santa Lucía Cotzumalhuapa has grown to the very edge of the monumental structures at Bilbao. Elsewhere, urban growth has inflicted strong damage to the archaeological record at El Castillo and El Baúl.



Figure 5. View of El Baúl Acropolis

Another limitation is posed by the lack of access to certain areas, a condition that held back reconnaissance around the El Baúl site at the time of my dissertation research (1994-95). This important area was systematically covered by field walking during the 2000-2001 field season ([Figure 5](#), shown above). Recently cut sugarcane plots were subdivided to create sampling units measuring an average 100 x 100 m. The corners of these units were plotted with a Garmin GPS II hand-held unit, reaching an EPE (estimated position error) of 3-4 meters. Each unit was sampled by walking straight lines along sugarcane furrows, while recovering rim sherds from the surface. This method proved feasible for extended coverage, and provided comparable information throughout the sampled area. A total 1.7 km² were covered with this method, stretching between the rivers Santiago and Cristóbal ([Figure 1](#)).

Preliminary results show a high density of settlements extending north of El Baúl. Further reconnaissance will be necessary to determine the limits of the high-density settlements beyond the sampled area. Importantly, debris from obsidian workshops was found at several locations in this sector, suggesting the presence of obsidian workshops. This reveals the likelihood of a series of small workshops, in addition to the very large workshop identified by an extensive debris accumulation, very close to the El Baúl acropolis, which was identified by Sonia Medrano in 1996. Settlements also extend west towards river Cristóbal, but the density seems to be smaller. The majority of recovered sherds were Late Classic, but Postclassic materials were also found at selected locations. Analysis of materials recovered from the surface will provide a basis for more detailed conclusions on the variability of settlements across the sampled area.

Research at Colonial Period Sites

The ethnic identity of the creators of the Cotzumalhuapa style has been a matter of discussion since the nineteenth century (Gavarrete, 1929; Stoll, 1958; E. Seler, 1892; Thompson, 1948; Chinchilla, 1998b). Documentary evidence has shown that, at the time of Spanish conquest, both Pipil and Cakchiquel speakers inhabited the area. The latter had arrived recently, as a result of the expansion of the highland Cakchiquel kingdom centered at Iximché (Chinchilla, 1998b). However, the date (or dates) of the arrival of nahua-speaking peoples to the Pacific coast is uncertain. Assuming that the Pipil were on the coast since the Classic period, most early authors identified Cotzumalhuapa art as their creation. This was contradicted by Fowler's (1989) dating of the Pipil migration to Central America in the Early Postclassic, but the issue has remained controversial.

A major problem for the archaeological study of this important issue is the absence of research in Postclassic contexts, necessary to clarify the relationship between Classic peoples and the historically documented Pipil and Cakchiquel. Until recently, very little was known about Postclassic sites on the Pacific coastal plain. Therefore, the project turned its attention to the presence of several abandoned colonial towns in the Cotzumalhuapa area, where surface collections suggested a continuity of occupations since Precolumbian times.

A cluster of cacao-producing towns flourished at Cotzumalhuapa in early colonial times, but was abandoned by the early eighteenth century, most probably as a result of onchocerciasis, a parasitic disease introduced by African slaves that became endemic in the area. Church ruins of the two major towns are still visible within two kilometers of the El Baúl site ([Figure 1](#)): San Juan Perdido (formerly San Juan Aloteque, Figure 6, shown below) and El Convento (formerly Santiago Cozamaloapa). Surface collections showed that these locations were occupied at least since the Late Classic period, throughout Postclassic and Colonial times. Therefore, these locations promised to yield valuable information on the transition between the Late Classic and Postclassic periods in the area.



Figure 6. Ruined Colonial Church of San Juan Perdido

Licenciado René Johnston, from Universidad del Valle de Guatemala, took charge of this component, as a basis for his graduation thesis. Fieldwork included recording of visible architectural features, surface collections in discrete areas around the ruined churches, and test excavations at selected locations. In addition, Lic. Johnston carried out exhaustive research in Guatemalan archives, in search for further documentary information on the Colonial history of the area.

A major result was the first documentation of colonial period ceramics from the area. Comparisons show that Spanish-influenced types were imported from the Colonial capital of Santiago de los Caballeros de Guatemala (modern Antigua Guatemala). This included Majolica and other types of glazed pottery. Other ceramic types of foreign origin included scattered fragments of Chinese porcelain, as well as numerous fragments of *botijas*, large jars used to import wine and oil. The latter were mostly found at El Convento ([Figure 7](#)), the Colonial parish seat, and were clearly brought for service of the church and clergy.

Indigenous ceramics show a high degree of continuity between the Postclassic and Colonial periods. In the absence of pure contexts dating to the Postclassic period, it became impossible to distinguish pre-Hispanic and Colonial materials. Interestingly, some of the best-known Postclassic materials from other sites in Escuintla are absent, despite the fact that they have been recovered occasionally from surface collections in the Cotzumalhuapa area. This suggests that Postclassic occupation at both San Juan Perdido and El Convento was slim. There is a possibility that the Postclassic peoples did not occupy concentrated towns. Postclassic remains are found near the surface in many parts of the Cotzumalhuapa Nuclear Zone, but no major structures dating to that period have been located, with the exception of a habitational compound close to Bilbao (Chinchilla, 1996a; 1998b). Therefore, the actual location of both Colonial towns might be the result of *congregaciones* organized by the Franciscan friars, who may have brought together populations that were scattered in wider areas.

Late Classic materials were found mixed with later deposits at San Juan Perdido, and to a lesser extent, at El Convento. The former was clearly part of the Classic period Cotzumalhuapa Nuclear Zone, while the latter seems to be at the very limit of this settlement area, as indicated by the reconnaissance program. In the absence of clearly dated Postclassic materials, the stated objective of studying the transition between the Late Classic and Postclassic was not fulfilled. Further research aimed at uncovering good Postclassic contexts is clearly necessary.

El Convento Cotzumalhuapa

Plan of extant architecture

Rene Johnston
2000

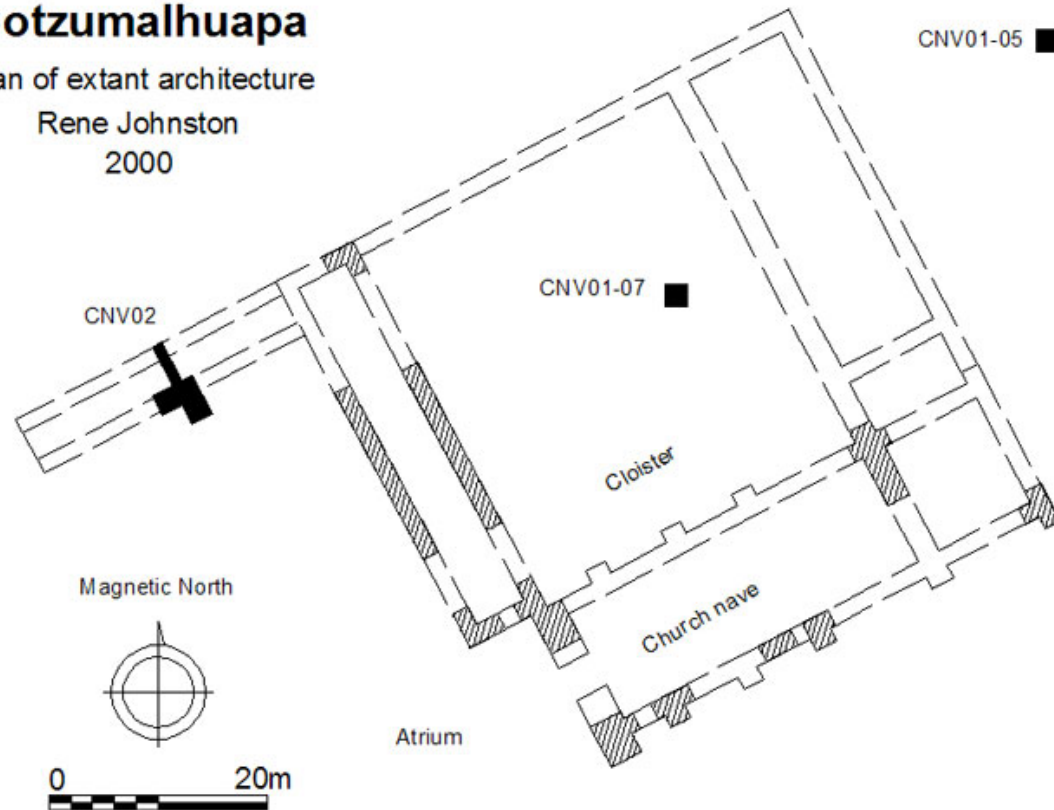


Figure 7. Plan of Extant Architecture at the Site of El Convento (*can also be viewed in Autodesk® Express Viewer)

Mapping and Test Excavations at Palo Verde

The site of Palo Verde is located on the foothills of the Fuego volcano, about 10 km north of the Cotzumalhuapa Nuclear Zone at an elevation of 880 m. Its monumental sculptures are known since the nineteenth century, and were reported by Cæcilie Seler (1900). These sculptures are recognized as major examples of Cotzumalhuapa art. Monuments 1-3 were brought to Guatemala city in 1910 and have been on display at the National Museum of Archaeology and Ethnology since the 1930's. Yet, the site has remained totally unknown, except for a brief report and partial plan made by the author in 1994 (Chinchilla, 1996a:407-410).

Research at Palo Verde was given priority during the 2000-2001 field season for several reasons. The site is one of the major outlying settlements within the Cotzumalhuapa settlement system. In terms of architectural size, number and quality of sculptures, it

finds no match except for the site of Aguná, located about 10 km Southwest of the Nuclear Zone. Because of its location, it promised to yield information on the interaction between the Nuclear Zone and the adjacent highlands of Chimaltenango, touching on issues such as obsidian exchange with the highland sources of the raw material. More importantly for practical reasons was the fact that the coffee trees planted over the entire site were pruned in 2000, creating favorable conditions for mapping that may not repeat in many years.

Sébastien Perrot-Minnot, a student from the University of Paris I, carried out mapping, reconnaissance, and test excavations at the site. All visible structures were mapped with a Topcon DT-30 electronic transit, combined with a Tripod Data Systems COGO data collector. The resulting data were processed using AutoCAD Land Development Desktop from Autodesk Inc. The resulting map, covering an area of 2.09 ha, is shown in [Figure 8](#) and [Figure 9](#).

The site is dominated on the northern side by a large platform covering 1.2 ha (Structures 1-4), which is largely devoid of superstructures, except for a platform located on its eastern side (Structure 3). The southern side of this platform is split by a wide ramp that may have provided access, while an adjoining structure extends from the southwestern corner, enclosing a 30x75 m terrace at the base of the structure. Interestingly, this huge platform is not aligned with the rest of the site's monumental major buildings. As shown on the map, the center of the main platform is aligned with structures 6 and 7, which seem to extend directly towards the central ramp. Yet, the large platform keeps the general site orientation, which on the basis of surface topography may be estimated around 20° East. Structure 9 parallels structures 6 and 7, leaving a 50x35 m patio in between. Structure 8, whose surface features suggest the possibility of a sunken court, encloses the northern side of this patio. On the southern side, Structure 10 is one of the most intriguing because of the large central depression with apparent entrances on the northern and southern sides. It may prove to be a platform sustaining a raised patio group.

This architectural assemblage stands on a ridge overlooking the Pantaleón river, which flows about one kilometer east of the site. The geographic location is particularly intriguing, because of the permanent hazard posed by the proximity of the active Fuego volcano, whose imposing 3760 meter high crater rises only 12 kilometers away from the site. Unfortunately, no information is available on the eruptive history of this cone during Precolumbian times, but Colonial records show that it has been active for the last five centuries. Constant eruptions periodically cover the site with airborne ashes, while major episodes pose a serious threat for human life, crops and buildings. Even in the absence of major eruptive episodes, the Pantaleón river carries a heavy load of volcanic sediments from loose ashes deposited high above the cone (Williams, 1960). As a result, a 50-60 cm layer of volcanic ashes covers the surface of the site. Excavations showed that this layer was formed by at least five episodes, separated by thin layers of brown soil.

Palo Verde

Guatemala

Topografía: Sebastien Perrot-Minnot

Dibujo: Oswaldo Chinchilla

Diciembre 2000-Enero 2001



Figure 8. Topographic Map of Palo Verde (*can also be viewed in Autodesk® Express Viewer)



Figure 9. Three-dimensional View of Palo Verde

Two stratigraphic pits were dug to gain a basic understanding of the site's occupation history ([Figure 8](#)). Operation PV2 was located on the northern side of Structure 8. Below the ash layers from recent eruptions, this excavation revealed Late Classic deposits that reached a thickness of 2.80 m. Most of this appears to be the result of a fill operation that leveled the area before construction of the major architectural compounds. Only further excavations will confirm the extension of this leveling operation, which from this excavation appears to be an enormous undertaking that

required a huge expense of labor. Ash layers from earlier eruptions were located underneath the Late Classic fill.

Operation PV3 was dug at a location that yielded fairly large concentrations of surface materials, 50 m southeast of Structure 9. The recent ash layers were not as clear at this location, perhaps because of its modern use as a sugarcane field. Below, the Late Classic deposits reached a thickness of 1.60 m. Most important was the presence of small amounts of sherds dating to the Early Classic period at the latest, which were found more than 2 m below the surface. This is the only indication of an earlier occupation of the area, long preceding its transformation into an important Late Classic center.

Monumental Sculptures

Three previously unknown monumental sculptures were photographed:

Palo Verde Monument 7 ([Figure 10](#), below): Dubbed "the sad tiger" by project members, this is a colossal tiger head distinguished by its closed eyes with hanging eyeballs. He wears a cloth diadem tied with a knot on front and circular earrings with pieces of cloth hanging from the center. The large round jaguar ears appear at either side of the diadem, while the teeth show between the open lips. This interesting sculpture was located in possession of a descendant of the former owner of the *finca* where the Palo Verde site is located. According to information provided by the current owner, it is possible that other unrecorded monuments from Palo Verde were removed from the site in the first part of the twentieth century. The hanging eyeballs are known elsewhere in Cotzumalhuapa art, especially in the horizontally-tenoned human heads from Pantaleón (Vreeland and Bransford, 1885; Chinchilla, 1996c).

Measurements: Height 65 cm; width 80 cm; thickness 55 cm.

El Baúl Monument 71: A boulder carved with one side with the upper body of a monkey in frontal guise, with arms raised to either side. The monument is split approximately in half, and shows scars produced by recent plowing. This crude sculpture was located during the reconnaissance program, about 600 meters north of the El Baúl acropolis, very close to the original location of Monuments 66 and 67. The cluster of monuments suggests that this was an important area, perhaps with elite residences or religious facilities. Further research in the environs seems promising. The closest parallels to this representation are found on ceramic vessels reported by Thompson (1948: figure 24d-e). In fact, this is one of only a few iconographic features shared between Cotzumalhuapa sculpture and ceramics.

Measurements: 110x70 cm. Height



Figure 10. Palo Verde Monument 7

Horizontally-tenoned head, possibly from El Baúl ([Figure 11](#), below): A horizontally-tenoned human head with open mouth, short beard, hair combed to either side, and round earrings. This monument was located at a private residence in Santa Lucía Cotzumalguapa. The owner's indication that it was found at his residence seems unreliable, especially considering that ten examples of this type of sculpture are known from the El Baúl site (Monuments 16, 45-49, 61, 62, 65, 66). It seems certain that the monument was removed from El Baúl during the extensive alterations suffered by the site's major architectural compounds since 1996, when a large portion became urbanized. The frequency of human heads with open mouth at El Baúl is intriguing. Is this an attitude of aggression or pain? Most examples are known to originate from a sunken court located within the site's Great Precinct, south of the main acropolis.

Measurements: Height 36 cm; width 35 cm; length including tenon 85 cm.



Figure 11. Previously unpublished horizontally-tenoned human head with open mouth

Further advances in the process of recording of monumental sculptures in the Cotzumalhuapa style included the following:

(a) Scanning of line drawings of monuments at a high resolution, for ease of manipulation, reproduction, and long-term storage.

(b) Sculptures that were previously unrecorded for reasons of accessibility, poor illumination or other were photographed. A case in point is Bilbao Monument 16, one of the few sculptures that remain in situ at the site ([Figure 12](#), below). Because of its horizontal position in the middle of the sugarcane-planted site, this monument has proved difficult to photograph. In fact, no published photographs are available; the monument is known only through the nineteenth century drawings of Habel (1878) and Berendt (published in Chinchilla, 1996b), and a rubbing published by Parsons (1969: plate 42e). Considering its location, the best solution to photograph this important carving was to take advantage of sunlight very early in the morning. This could be done only during a short time after the sugarcane harvest, before the growing plants cast shadows over the sculpture. A ladder was used to achieve a perpendicular view of the carved surface. Although slightly slanted, the resulting photographs will provide an adequate basis for detailed line drawings ([Figure 13](#), below).



Figure 12. Bilbao Monument 16



Figure 13. Bilbao Monument 16

Directions for Further Research

Research at Cotzumalhuapa has reached a critical point. We have broadly reconstructed the distribution of settlements within the Cotzumalhuapa Nuclear Zone, as well as their articulation through the system of causeways and bridges. However, we know very little about the nature of those settlements. Excavations and ceramic analysis from Operation EB4 are but a starting point for the detailed study of the Cotzumalhuapa households. Detailed excavations of households will provide information about demography, social stratification household economy, and other important issues. An important gap in Cotzumalhuapa archaeology is the absence of burials. No researcher has reported a single burial from the area. Is this the result of undocumented practices for the disposal of human remains, or is it simply the result of poor sampling? The fact is that domestic compounds, where burials are likely to be found, have received minimal attention at Cotzumalhuapa.

The surface reconnaissance program has revealed important features such as the obsidian workshops in the El Baúl vicinity, which may provide information on the systems of production and exchange that were germane to Cotzumalhuapa political economy. A study of these workshops must be another priority for future research.

Our understanding of the chronological development of the area has improved significantly. However, there is a need for refinement of the Classic and Postclassic ceramic sequence, which may be achieved through excavations at sensitive contexts such as domestic middens. Investigation of Postclassic sites in the area is especially important for addressing questions on the ethnic and linguistic affiliation of the Classic period population and their relationship with the Postclassic Pipil.

Mapping and test excavations at Palo Verde improved our knowledge of the settlement system that surrounded the Cotzumalhuapa Nuclear Zone. Similar documentation is desirable for other sites in the settlement system, notably Aguná. Further reconnaissance is also necessary to fill important spatial gaps in our knowledge of site distribution in the area. At present, there is a high probability that many sites belonging to the lower levels of the settlement hierarchy remain to be discovered.

Finally, the study of Cotzumalhuapa art begs for detailed publication of the sculptural corpus. The process of photographic documentation and line drawing has advanced steadily, but little has been published so far. Several forthcoming publications will include selected photographs and drawings (e.g. Chinchilla, n.d.), but the systematic publication of the corpus is a major priority. Future activities will address persisting gaps in documentation and emphasize the preparation of drawings and photographs for publication.

Acknowledgements

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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 on the button below for the latest version of Autodesk® Express Viewer from Autodesk.com.



[Figure 1.](#) Map of the Cotzumalhuapa Nuclear Zone (can also be viewed in Autodesk® Express Viewer, click [here](#) to download image)

[Figure 2.](#) Excavation Plan of Operation EB4 (*can also be viewed in Autodesk® Express Viewer, click [here](#) to download image)

[Figure 3.](#) Staircase of Structure 1, Operation EB4

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[Figure 5.](#) View of El Baúl Acropolis

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[Figure 8.](#) Topographic Map of Palo Verde (*can also be viewed in Autodesk® Express Viewer, click [here](#) to download image)

[Figure 9.](#) Three-dimensional View of Palo Verde

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[Figure 12.](#) Bilbao Monument 16

[Figure 13.](#) Bilbao Monument 16

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