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Living the sacred landscape: The process of abandonment of the Early Classic Maya group of El Diablo at El Zotz, Petén, Guatemala.

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Living the sacred landscape: The process of abandonment of the Early Classic Maya group of El Diablo at El Zotz, Petén, Guatemala

by

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Dedication

To my parents Rosa Maria Ramírez and Julio Román.

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Abstract

Living the sacred landscape: The process of abandonment of the Early Classic Maya group of El Diablo at El Zotz, Petén, Guatemala.

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Supervisor: David Stuart

This thesis analyzes the process of abandonment of the El Diablo group located in the site of El Zotz in Petén, Guatemala. I use the study of the process of abandonment applied often by anthropologists and archaeologists as a model to understand how societies abandon cities, towns and small villages. In this thesis, I begin by trying to understand the history of the group. Based on data collected during three seasons of the El Zotz Archaeological Project, I established that the El Diablo group was a Civic-Ceremonial compound, which was started during the beginning of the Early Classic period (250 to 450 AD). After two hundred years of success the civic and ceremonial compound of El Diablo was abandoned. In my research, I conclude that abandonment of the group occurred approximately at the end of the Early Classic period (400 to 450 AD) and that this process was a planned decision made by the elite of El Zotz.

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Chapter 1: Introduction

When I joined the El Zotz archaeological project in 2009, the project director Stephen Houston asked me in which area of the site I would like to work. My answer was very simple: I was interested in investigating a structure with monumental art. I had just completed five years of work at the site of San Bartolo, Guatemala, where I excavated the Preclassic pyramid of Las Pinturas and its sub-structure Ixim, a temple decorated with extraordinary polychrome murals and at least two stucco masks (Román 2008, Román *et al* 2008). Ixim was contemporaneous to the more famous building with the paintings found by William Saturno in 2001 also in the Pinturas complex, Structure Sub-1A (Saturno *et al* 2005, Taube *et al* 2011). Concurrent excavations of earlier architectural features within the same pyramid showed evidence of even earlier monumental architecture with murals, dating to about 350 BC, showing similar themes and imagery to what was visible in the later paintings (Beltrán 2006, 2008). These extraordinary finds at San Bartolo made me consider how the decoration of pyramids or temples might show remarkable continuity across several construction phases. What were the religious and social implications of such continuities? Was it possible to trace them among other examples of Maya religious architecture at other sites? There were many other questions that were raised by the San Bartolo excavations, but moving on to El Zotz presented opportunities to keep thinking along the same lines. For that reason, Dr. Houston advised me to excavate in the architectural group at El Zotz called El Diablo, where years before

George Andrews documented the existence of stucco masks and elaborate decoration in one sub-structure of a pyramid known as Structure F8-1.

The ensuing excavations at El Diablo did not only focus on structure F8-1. The project designed a methodology that also included the investigation of the other nearby structures of the group. Right away our excavation started to show a very particular context. Normally the first layer of deposition in a vertical excavation in Maya structures is a layer composed of humus and collapsed material from the structure. But in the case of El Diablo, the humus was only a small layer about 10 cms. Or less, without any collapsed material. The layer below was a grey material that was intentionally deposited to cover the last construction phase of the El Diablo Main Plaza. This peculiar case caused me to shift my ideas. I started to consider how much human labor and material were used to make this work. This particular layer was made specifically to bury the buildings, and was composed of limestone, mud, and pulverized limestone together with archaeological materials such as ceramic sherds, obsidian, and stucco. Also this unusual context found at El Diablo forced me to think more about the special function of the structures, and how they were located within the group.

After a couple of weeks we shifted our methodology to one more ambitious than the first. Our new methodology was not only focused on the art of the group, but also looked to provide an explanation to what motivated the abandonment of the Main Plaza. The hypothesis for the investigation was to demonstrate that the ancient inhabitants of El Diablo were most likely part of the local royal family of El Zotz who, after a short but intense occupation, decided to move to a new sector because the difficulties generated by

the broken topography where the site was located. For that reason they planned the abandonment of the group in the end of the Early Classic.

In this thesis I will argue that the abandonment of the Early Classic center of El Diablo was a decision made by the ruling family in order to continue the dynasty in an area where they could build a bigger center, and in an area where there was better access to natural resources and more space to construct water reservoirs. To orient my work in a theoretical context, I will use the study of abandonment process in archaeology, used by many field investigators around the world as well as in Mesoamerica (Inomata and Webb 2003; Cameron and Tomka 2003). The importance of the study of the process of abandonment of El Diablo is due to its unique context. It is evident from the excavations and chronology that the abandonment of the complex was not caused by any natural event or war, but rather was a planned and gradual process involving the participation of both nobles and the commoners. The elites were presumably the ones that made the decision to abandon the group, and maybe were also those who performed ceremonies and deposited the ceramics in the structures. But it was presumably the commoners who labored to carefully and intentionally bury the structures with rocks and mud. This process is one physical manifestation of the power the institution of Classic Maya kingship.

The information in this thesis comes from to the data collected over three field seasons, from 2009 to 2011. The presentation of the El Diablo excavations and interpretations is separated in five chapters. The first chapter lays out the main questions of my study and also contains information about the site of El Zotz, the previous research

in the area, and the information on the Project, such as the main goals and the process of the investigation. In the second chapter I explain the study of the process of abandonment, which has been used for many archaeological sites. Here I explore the most common causes of abandonment, including the spatial scale and the temporal scale. In this same chapter I also describe the most important models used to understand the Maya Collapse, and why this model could not be applied to El Diablo. The third chapter includes a description of monumental architecture and the function of buildings in the Early Classic in the Maya area. The fourth chapter describes the location, function and the excavations at the El Diablo Group. Here I also describe the stratigraphy of structure F8-1, including a section describing the tomb found within structure F8-1. The fifth and final section describes the process of abandonment at El Diablo. I consider the scale of the abandonment, the temporal scale and the causes of abandonment. Chapter five contains the conclusion of this thesis.

1.1 The Ruins of El Zotz

El Zotz is a Maya site located in the Biotope *San Miguel La Palotada* in the *Municipio* of *San Jose* in the Department El Petén Guatemala (Figure 1), in the core area of the Maya Biosphere Reserve. Currently administered by the *Centro de Estudios Conservacionistas* (CECON), School of Chemical and Pharmaceutical Sciences at the *Universidad de San Carlos de Guatemala*, this biotope was created in the year 1987 (Decree No. 4-89, 1989, 5-90) and covers an area of 34.934 ha. The name El Zotz was

assigned during the 1970s due to rock formations near the site that is inhabited by an active community of bats (Itzaj Maya *sotz'* means "bat").

The site was first discovered in 1978 by the Guatemalan archaeologist Juan Antonio Bayle (Laporte 2006, Houston *et al* 2006); it covers an approximate area of 0.75 km^2. The most recent investigations at El Zotz were partially motivated by the key role it played in the geopolitical relations in the central area of Petén (Figure 2) during the Classic period (ca 250-900 AD). Its importance lies in the probability of being the origin of the dynasty of Yaxchilan, an archaeological site on the Usumacinta River, which shares the same emblem glyph (Stuart personal communication 2009). Its location between Tikal to the east and El Peru to the west highlights the important role that could have kept El Zotz between these two centers, whose diplomatic activity was changing throughout the Classic period (Houston 2007, Houston *et al*, 2007).

The ruins cover an approximate area of 0.75 km^2. This core settlement at El Zotz contains more than 210 buildings (Figure 3) in four main groups, as defined by Houston and his team following the second expedition to the site in 2006 (Houston *et al* 2006). Several pyramidal buildings are in three groups, protruding structures: M7-1 of 22.50 m, formerly referred to as Temple I (Andrews 1986), and structure L7-11 measuring over 25 m high. A palace complex, located north of the settlement, consists of buildings L7-1 to 10 (Group 2), while a large platform raises several structures in the south of the site (South Group or 4), a possible residential group that consists of a series of organized structures in two patios. Toward the center of El Zotz, Group 3 consists of a square space surrounded by several buildings including: two pyramidal structures north and south

respectively (L8-8 and L8-13) and four more in the east side. Behind them, and another plaza, stands the only ball court at the site (Houston *et al* 2006). Also the core of the site has two aguadas in the southwest. To the east, and at a distance of about one kilometer from the Main Plaza is a courtyard enclosed by architecture that includes 17 structures (F8-1 to F8-16).

The El Diablo complex is located on a remarkable natural elevation that rises above the surrounding terrain. It was presumably chosen for defensive purpose in the beginning of the Early Classic. The group contains important architecture with facades decorated with stucco, a palace, funerary temples, and residential areas (see Chapter 4). Four hundred meters east of El Diablo a new group, El Tejon, was discovered (Knodell and Garrison 2010). Without question, El Tejon was part of El Diablo due to its orientation and its proximity to the Main Plaza of El Diablo. The group is also located on a hill and has three terraces and a causeway (Houston *et al* 2011). Another group, Las Palmitas, is located less than a kilometer north of El Zotz. It is a second architectural group that includes, among other structures, a platform that supports at least three elongated rectangular buildings, the pyramidal building M3-1, and a palace in the west; the group dates to the Late Classic and shows evidence of continuity through the Post-Classic Period (Carter and Castillo 2010).

1.2 Previous research at El Zotz

In 1978 George Andrews visited the site, and in 1986 he published his impressions of El Zotz and reported the extensive looting of the structures. He also

noticed how similar the architecture was to Tikal, especially the pyramid (Andrews 1986). Also in the mid-seventies, as part of the explorations of the Corpus of Maya Hieroglyphic Inscriptions, Ian Graham visited the site. The exact date is unknown, but Graham prepared the first map of El Zotz and documented the carved monuments (Houston *et al* 2006). Between 1970 and 1980 El Zotz was visited by Jaques Vankirk who documented part of a stucco decoration on the pyramid of El Diablo (Vankirk 1996: 124). In 1987, as part of the activities of the *Proyecto Nacional Tikal*, Juan Pedro Laporte and Juan Antonio Valdés excavated some of the temples at El Zotz. At Temple I (Structure L7-1) they recovered ceramics and a lithic offering (Ruiz 2004). In 1995 archaeologists from IDAEH (*Instituto de Antropologia e Historia de Guatemala*) created a new site plan. An archaeologist also made another site map from the Proyecto Triangulo Yaxha-Nakun-Naranjo, who conducted a survey between 1999 and 2000 (Quintana and Wurster 2001).

1.3 El Zotz Archaeological Project

The Archaeological Project of El Zotz from Brown University, started in January of 2006, was an initiative of Drs. Stephen Houston and Héctor Escobedo. The project had four main objectives. The first one was to confirm that the emblem glyph of *pa'chan* ("Broken Sky" or "Sky Fortress") belongs to El Zotz and its vicinity (Illustration 4). The second objective was to find out if the royal family of Yaxchilan in the Usumacinta River originated from El Zotz (Figure 5). The third objective was to determine the social and political relationship that the site had in the Maya Region, specifically the central area of

El Petén. The last objective was to establish how the ancient Maya modified the natural landscape from the Preclassic through the Postclassic.

The first year the project created a digital map with new technology using a total station survey. The survey covered the central part of the El Zotz settlement and covered an area of 75.107 m^2 (Houston *et al* 2006). The second year the project continued to map in the main area and surveyed the El Diablo group and Las Palmitas (Arredondo and Houston 2008, Nelson and Doyle 2008); in this field season the project also started to document looters trenches found in El Zotz, Las Palmitas and El Diablo (Arroyave *et al* 2007). In 2008, Houston and Arredondo extended the research to the Preclassic site of El Palmar, including seven operations at El Zotz (Arredondo and Houston 2008).

Operation 1 consisted of a series of test pits designed to recover archaeological materials, especially ceramics, in different plazas of El Zotz to begin developing the ceramic sequence that would date the periods of occupation (Quiroa *et al* 2008). Operation 2 was located on the Central Acropolis in order to understand the construction sequence of this set, where 10 units were excavated. In this excavation evidence of ritual activity was recovered with the discovery of a cache in the middle of Patio 2 of the Acropolis, consisting of 281 pieces of obsidian and flint (Melendez and Houston 2008). The preliminary excavations showed that this group was occupied from the Early Classic period to the Late Terminal Classic.

Operation 3 was designed to investigate pyramidal buildings, specifically structure L7-11. It was established that this building had a ceremonial function, as evidenced by the presence of an offering within the filling structure composed of two

ceramic plates, mica, a carved jade pectoral, 51 shark teeth, and a Spondylus shell pendant. These materials were all within a vessel type Saxche-Palmar Orange Polychrome representing a design that resembles the appearance of a vegetable basket. This was covered by another vessel of the same type placed lip to lip, as a sort of front for the first (Arredondo *et al* 2008). At the top of the structure it was identified that the temple consisted of two chambers.

Operations 4 and 5 were designed as a series of test pits intended to recover archaeological materials that could help to date the groups of Las Palmitas (Gillot 2008a) and El Diablo. In El Diablo the remains of a tomb was found in structure F8-14 (Gillot 2008b), but the chamber was already looted. In this field season the site of El Palmar was also mapped and the first excavations were made that helped to establish that the occupation of the site dates back to the Preclassic and continued until the Early Classic (Matute and Doyle, 2008).

During the 2009 season, the El Zotz Archaeological Project focused on four areas of work: the first was the excavation of El Zotz and its surroundings, the second corresponds to the excavation at the sites El Palmar and El Bejucal, the third concerns the work of survey and excavation by quadrants in the area of San Miguel Palotada Biotope, and the fourth concerns the beginning of the paleo-environmental studies (Perez *et al* 2009). The first area of work corresponds to the excavations on the Acropolis (Operation 2) of El Zotz, specifically the section of Patio 1, the largest of the three that compose it, surrounded by structures L7-1, L7-2, L7-3, L7-6 and L7-7. The 2009 field season stands out because the project found two termination ritual deposits: the first, located in

structure L7-3, dated to the Early Classic period, the second deposit, located on Structure L7-1, dated to the Terminal Classic period (Pérez *et al* 2009).

In 2009, four test pits excavated at the Las Palmitas group established that occupation of the group must have started during the Preclassic period and extended into the Early Classic period, although the rise for the moment has been placed in the Late Classic period (Quiroa 2009). At the south group excavations were also made (Operation 6), and the results have established that the group had a strong occupancy in the Early Postclassic period. It was also proved that these very late inhabitants of El Zotz re-used structures built in the Early Classic (Gámez 2009).

Operation 5 focused on the excavation of the El Diablo group, mainly on structure F8-1 that presented three examples of monumental art in two of the construction phases, which date to the Early Classic period. In this operation Structures F8-7 and F8-8 were excavated, and it was established that the group was abandoned in the Early Classic (Román and Carter 2009).

At El Palmar the survey program continued, as well as the program of test pits in the main plazas. The excavation work on the east platform of the Group "E" and Structure and F5-1 also began (Doyle and Matute 2009). In this field season also the site of El Bejucal was excavated. In reconnaissance work at the regional level a new Preclassic site called La Avispa was discovered. The site is located between El Zotz and El Palmar. A preliminary map and excavations in the main squares were executed (Garrison and Garrido 2009).

In the 2010 season the El Zotz Archaeological Project conducted 27 operations in different groups of El Zotz, El Bejucal and El Palmar. On the Acropolis of El Zotz the excavation focused on structures continuing the investigation of the termination deposit located in season 2009 in structure L7-1 (Perez *et al* 2009). The excavations exposed more areas of the termination deposit which extend along the north facade of the building. At this time structure L7-2 and a vaulted corridor leading from the East Plaza to the courtyard east of the Acropolis was also excavated (Garrido *et al* 2010).

In the Las Palmitas and El Diablo groups excavations continued into the monumental architecture. In the first group (Las Palmitas) the illegal excavations in the structure M3-1 were documented and evidence was discovered showing that the group had a strong occupation during the Late Classic through the early Postclassic period (Carter and Gutierrez 2010). At El Diablo the more important discoveries were a royal tomb in F8-1 and the excavation of the Solar Structure, which was covered by a series of masks (Román and Newman, 2010). The excavation at El Zotz also included the South Group in which evidence was found that the Postclassic occupation of El Zotz had at least 200 families living in that area (Kingsley and Cambranes 2010).

The excavations at sites around El Zotz were very successful too. The excavations at El Palmar proved that the first inhabitants of the site started to build monumental architecture, like the West Pyramid of the E group, around the Middle Preclassic (Doyle and Piedrasanta 2010). At the site of El Bejucal the project excavated structure S6-10. The structure had evidence of being built in the end of the Preclassic period and at least two small temples (sub-structures) were found in the core of the structure. The function

of this structure was also funerary. In the process of cleaning the central looters trench, right under the stairways an Early Classic funerary chamber was found. The chamber was completely empty because the looters took all the archaeological remains, but on one side of the chamber a cache formed by two orange plate type aguila Orange, which had different kinds of shells, jade, and pyrite, was found (Garrison and Beltran 2010). Another important find in 2011 field season was the discovery of a new residential area at El Zotz named El Tejon. The group is located about 400 m from the Main Plaza of El Diablo. The project mapped and collected ceramic samples that date the group to the Early Classic (Knodell and Garrison 2010)

The most recent field excavations of the El Zotz archaeological project started May 1, 2011. The field season was planned in a way to continue the excavation in the Main Plaza, especially in the Acropolis in which an inscribed monument, Stela 4, was recovered in Structure L7-17. The partial inscription shows that Stela 4 dates to 830 AD, and bears the name of a new king, Nahb Chan Yopaat, as well as the emblem glyph of El Zotz: *pach'an* (Houston personal communication 2011). The excavations at Las Palmitas confirmed that the group was built at the end of the Late Classic, but had a very strong occupation in the Terminal Classic (Carter and Gutierrez 2011). The project also studied the South Group at El Diablo where the north wall of the Solar Temple was uncovered (Beltran and Román 2011). At El Tejon an Early Classic tomb was found (Piedrasanta 2011). At the site of El Palmar the project conducted excavations in the Triadic Group, where evidence was found that the first inhabitants of the area were at the site as early as 700 BC (Doyle and Piedrasanta 2011).

The Archaeological Project of El Zotz was able to prove early on that El Zotz played a significant role in the Southern Maya Lowlands. The excavations also showed that the main area of the site was inhabited continuously from the Preclassic Period through the Post Classic. Also, with the excavations in the Acropolis, the project proved that the emblem glyph of El Zotz was *pach'an*, which was found on Stela 4 and on pottery from the first patio of the Acropolis. The other objective that we were able to address was how the ancient inhabitants of El Zotz modified the natural landscape during its occupation over more than a thousand years, which varied form groups settled in valleys to areas on top of natural hills. The only objective the project could not prove was if the royal family of Yaxchilan originated from El Zotz due to a lack of historical records concerning this subject.

Chapter 2: The Abandonment of Maya Centers

The most common questions archaeologists are asked by people outside of the field, and ones with which we are also concerned, are: Why did the Mayas abandon their cities? Where did they go? In the last years these questions have drawn the attention of many people due to a number of popular movies and books that focus on "Maya prophecies" related to the alleged end of our civilization in 2012. Sadly, the impact of our study has been misinterpreted and deconstructed by popular culture and some specialists who desire financial benefits or notoriety. It is understandable that this subject draws a lot of attention because almost all the archaeological cities were completely abandoned and reclaimed by the jungle, helping to create a mystery of what could have happened to the inhabitants.

It is hard to imagine the reasons why Classic and Preclassic cities like Tikal, Palenque, Copan, and Mirador, among others, were completely abandoned. Most collapsed between the 8th and 9th centuries AD, though we know now that was not the only collapse in Maya history. New evidence from excavations at early Maya centers and most regions of Mesoamerica, shows strong evidence of an earlier abandonment phase that occurred at the end of the Preclassic period around 100 AD. The first people that bring attention to abandoned cities in the Maya region were the Spanish priests of Yucatan in the 16th century (Webster 2002). But it is clear that even before the conquest the ancient Maya were aware of many ruins in their own midst. So far we do not have much evidence to tell us how the Maya interpreted the abandoned cities or structures, but we know that they were aware of some ruins because the archaeological record tells us

that some were revisited, often frequently, after their abandonment. People continued to make offerings in structures, and in some cases reoccupied these abandon cities after hundreds of years. Also many patterns of heirlooming, which also implies an awareness of a more ancient past.

In the Maya region the effort to understand why cities declined and many centers were abandoned has been approached in two different ways. The first is the study of the collapse phenomenon itself, which focuses more on understanding the complete abandonment of cities or regional areas. The second model is the study of abandonment in a larger interpretive context by addressing two interlaced issues: abandonment as part of the formation process, and abandonment as a social phenomenon (Inomata and Webb 2003: 1). In this chapter I will focus on the various theories proposed to explain the nature of the Maya collapses, most of which have focused on the abandonment of large cities or regions. I will also explore the study of site abandonment process, which I believe to be a more focused social phenomena that can be found in ancient cities or groups within a settlement.

2.1 Abandonment Studies

It has been almost 30 years since archaeologists started to focus on the process of abandonment of settlements and regions. More recently it has been increasingly recognized as a normal process of settlement, in the formation of the archaeological record (Cameron 1993:3, Inomata and Webb 2003: 1). North American archaeologists first used this type of study to interpret the abandonment of archaeological sites by the

Anasazi in the Southwest. Their abandonment studies not only focused on the causes of the abandonment but also human behavior at the time of abandonment and resulting patterns in the archaeological record. Abandonment is visible at the level of the activity area, structures, settlement or an entire region.

All archaeological sites are by their nature "abandoned," but not all the structures or settlements were abandoned in the same way (Cameron 2003: 3). Michael B. Schiffer defined abandonment as "…a process whereby a place of activity, structures or entire settlement is transformed in to archaeological contexts" (Schiffer 1996). For Catherine Cameron, abandonment process is the activities that occur during the abandonment, and includes two types of behaviors that are uniquely associated with abandonment: *de facto* refuse deposition and *curate behavior*. *De facto* refuse consists of the tools, facilities, and other cultural material that although still usable are abandoned within an activity area. By definition then, *de facto* refuse deposition only occurs at the time of abandonment. *Curate behavior* is the process of removing and transporting still-usable, repairable items from abandoned activity areas for continued use elsewhere (Lightfoot 2003: 166). The circumstances surrounding abandonment such a speed, degree of pre-abandonment planning, or anticipation of return, determine the abandonment processes that occur (Cameron 2003: 3). In the case of El Diablo, which is a urban group, we also can study the process of abandonment by analyzing the treatment that the architecture suffered during this process, because normally when the ancient Maya decided to built a new version of a structure, or a new building, they performed different rituals that can be documented. The only way archaeologists can establish which kind of abandonment

occurred is by interpreting the archaeological record and examining assumptions about artifact distribution. This distribution gives us the capacity to explore the abandonment of cities and settlement from two different angles: time and space.

2.2 Scales of Abandonment

Spatial Scale

Inomata and Webb identify two major scales in the studies of abandonment: spatial scale and temporal scale. Spatial scale has three subdivisions: regional, intermediate, and individual structures. Regional spatial studies are used to interpret the abandonment of settlements of regions whereas intermediate studies focus on the abandonment of sites or specific areas inside in a particular settlement. The smallest scale is the study of abandonment structures (Inomata and Webb 2003).

When considering regional scale scholars stress overall process of settlement abandonment in relation to changes in the political, economic, and ecological systems (Inomata and Webb 2003). It was first used to explain the abandonment in the four corners country of North America, where Utah, Arizona, New Mexico, and Colorado meet, that was the heartland of the Anasazi farmers in 1300 AD (Schlanger and Wilshusen 2003). The earliest Anasazi horticultural settlement dates to 600 AD, and this culture continued until 900 AD. They inhabited an area known as the Dolores region in the state of Colorado and were a culture that economically depended on the productions of corn. Since the beginning, archaeologists in the southwest proposed that settlements were abandoned because of a big drought. This affected the production of corn, and was

one of the causes of the first abandonment of the region (Schilanger and Wilshusen 2003: 85).

In Mesoamerica the study of regional abandonment often is applied to regions that are near volcanoes, like in Tuxtla in Mexico (Santley 2003) and the Valley of Zapotitlan in El Salvador (Mckee and Sheets 2003). On this scale we can also interpret the abandonment of settlements. Normally this kind of abandonment is the most studied in the Maya region and has been used to explain the abandonment process at Seibal and also at the site of Aguateca. In both cases this abandonment was rapid, and caused by wars that led to an exodus of the royal family (Inomata 2003, Demarest 2004).

Intermediate scale abandonment studies were proposed by Inomata and Webb in 2003 to focus on behavior and decision making processes of individuals or smalls groups, looking at abandoned areas of activity, groups, and households (2003). This study has been used to interpret the abandonment of Teotihuacan (Manzanilla 2003), Xochicalco in Morelos, Mexico (Webb and Hirt 2003), and Tikal, Guatemala. This study was also used by archaeologists at Seibal to determinate how households suffered a different kind of abandonment process than the principal plazas, where the nobles and rulers used to live (Palka 2003).

The third, and smallest, scale in abandonment studies looks at structures. One of the first archaeologists to explore abandoned structures was Fred Valdez, Jr. at the site of Río Azul. In his excavations in the southern part of the site Valdez found that the structure G-103 was built and in use during the Preclassic period. However, soon before the beginning of the Early Classic this structure was abandoned and covered with a thick

layer of mud (Valdez 1992; Sullivan *et al* 2008). A similar small scale abandonment has now been detected in many sites, and looks to be relatively common. Many archaeologists have addressed this particular phenomenon in a recent book, *Ruins of The Past*, edited by Travis W. Stanton and Aline Magnoni (2008). In this volume, archaeologists not only talk about abandonment, but also address questions about termination rituals and post abandonment behaviors.

Temporal Scale

The second major scale in abandonment is the temporal. This is the study of how quickly sites were abandoned, and how this can be addressed in the examination of the distribution of artifacts. The temporal scale can be divided between "fast" and "planned" abandonment. Fast abandonment is that which was normally due to wars or natural causes. Planed abandonment is gradual and is the more common scenario in the archaeological record (Inomata and Webb 2003). When there is rapid abandonment the residents tend to leave a large number of objects behind, whereas in gradual abandonment they have time to carry away a significant portion of their possessions (Inomata and Webb 2003: 3).

One of the most famous cases of rapid abandonment in archaeology is Pompeii in Italy, where the site was destroyed by the eruption of the volcano Mount Vesuvius. In Mesoamerica, the study of rapid abandonment also looks at natural causes. Archeologists have focused on areas such as Joya de Ceren in El Salvador, a site that has suffered many episodes of abandonment and reoccupation due to the eruptions of four different volcanoes. The first eruption dates to the Early Classic, caused by the eruption of

Ilopango Volcano that had earlier interpreted as one of the biggest causes of the Preclassic collapse in the highlands in El Salvador and Guatemala around 300 AD (Sharer, 1996, Sharer and Traxler 2006). However new evidence suggests that the eruption was at the beginning of the Early Classic (McKee and Sheets 2003), and for that reason cannot be a cause of the Preclassic Collapse.

Other evidence of rapid abandonment in the Maya area is related to warfare and conflict. The best example is the site of Aguateca in Guatemala, where archaeologists argue that the elites fled when their enemies attacked the site and left many of their belongings dropped on the floors of structures and plazas (Inomata *et al* 2002).

The second scale is gradual abandonment. Graduated depopulation of sites and areas is more common in archaeological records found throughout the world. In this case the inhabitants usually carry a large portion of their belonging to their next residence (Inomata 2003: 43). Another way to recognize gradual abandonment in the archaeological record is that normally trash is left in an area that would normally be clean. Evidence is also found in architecture, which can be dismantled, refilled, and in some cases used to perform ritual activities like depositing special artifacts or burning whole or partial structures. This behavior can be better recognized in spatial scale such as sites, groups or structures. This process of abandonment can take from as little as a month to hundreds of years. For example, at the site of La Quemada, in Mexico, archaeologists proved that the abandonment of the site took at least two centuries and consisted of four processes carried out by different social classes (Webb *et al,* 2003:30).

2.3 Causes of Abandonment in the Maya Region

The causes for abandonment are very similar to the causes of the collapse. As I mentioned, these causes can be addressed by looking at large cultural areas as well as individual structures. However, most theoretical frameworks for collapse and abandonment studies rely on the same types of causes: cultural and natural. Abandonment causes can be more specific, and we can determine exactly what phenomenon took place in structures or settlements, as well as when these occurred. In this case, the range of causes is broader because each type has its own history and we can detect this on the smallest scale, like structures. In this part of the chapter I will only describe the most common causes, and focus on the reasons for abandonment associated with the intermediate scale and structure scale, because they are more similar to my case of study at El Zotz.

Natural Causes

This study of abandonment by means of natural causes was the first to be used in the study of abandonment in the American southwest (Cameron 2003). In Mesoamerica natural factors have only been applied to the study of sites where there is evidence of volcanic activity, as at the well-known site of Joya de Ceren and in the Valley of Zapotitlan in El Salvador, as mentioned earlier. The archaeologists that worked at Joya de Ceren argued that the region suffered through many types of abandonment on different scales. The first abandonment occurred with the massive eruption of Ilopango Volcano around 405 and 470 AD. The pyrotechnic debris such as ashes and rock covered tens of thousands of square kilometers, with deposits up to 50 cm thick. The pyrotechnical flows

resulted in total devastation of certain regions; plants and animals had a very little chance of survival (McKee and Sheets 2003:62, Sheets 2002). After the eruption of the volcano the inhabitants of this region found new areas to build their cities. Some of the settlements, like Joya de Ceren, were reoccupied.

But this cycle of abandonment and reoccupation did not repeat indefinitely. In the period of 610-67 AD the volcano Caldera produced an eruption that was smaller than Ilopanago, yet proved to be more devastating to the site of Joya de Ceren. This volcano was only five kilometers from the site, and the accumulation of ashes and pyrotechnical material produced a thick layer between 3 to 6 meters that covered the structures of the site (McKee and Sheets 2003: 66).

Cultural Causes

Cultural causes for abandonment are more complex and varied, and with each site the evidence of abandonment and depopulation will inevitably be different. In most cases multiple abandoned structures and groups can also be detected. Inomata and his team of archaeologists working at the site of Aguateca in Petén, Guatemala developed the best study of cultural abandonment so far in the Maya region. During the excavations they discovered that many of the structures, such as the Palace Group and other domestic structures nearby, showed evidence of very rapid abandonment. It was clear from the artifact remains that the residents fled or were taken away quickly, leaving most of their belongings behind. Many of the structures were also burned (Inomata *et al* 2002: 305). Additionally, in the Palace excavations they did not find many artifacts in the floor, like

the ones found in the residential areas, which suggested to Inomata and his colleagues the royal family evacuated the center before the attack (Inomata *et al* 2002: 325).

2.4 Collapse Theory

We know that during the long history of Maya culture we can identify many "micro" collapses (Webster 2002). The most studied of these is the famous collapse at the close of the Classic period, which has received attention for many years from archaeologists (Culbert 1973, Webster 2002, Demarest 2004, Demarest, Rice and Rice 2004, and McAnany and Norman Yoffee 2010). In the last two decades specialists have been reviewing the concept of collapse and also how we approach our investigation. Many of them are against the utilization of this term "collapse" because this term has been used for many years as a tool to deny and exclude the actual indigenous communities that survive in Guatemala, Mexico and Belize from their own past (McAnany and Yoffee 2010, Demarest 2004). As an alternative, they propose the utilization of terms such as resilience, transitions, decline or transformation. In this chapter I will not explore this debate, as it falls outside the scope of the El Zotz excavations and evidence. For me it is more important in this thesis to explore the theories used by archaeologists to interpret how sites or regions were abandoned.

For decades archaeologists have created different models designed to understand why the major Classic Maya cities declined and then were abandoned at the end of the Late Classic. Most significantly, by the 1970s researchers established that the general belief that there was a rapid and simultaneous abandonment of all Maya cities was not

necessarily true at all (Culbert 1973). A general consensus arose that the famous Classic Maya collapse or decline occurred at different times in different places, and was due to a number of causes that we can summarize or simplify in two big groups, either natural and/or cultural. Studies of the "Maya Collapse" continue today and can be viewed on different levels, although most of them are focused on explaining the collapse of a single city or a specific cultural area.

The first Maya theories of the collapse before 1973 focused more on the idea of widespread regional collapse. One of the first theories was proposed in 1931 by two pioneers: Mayanists Thomas Gann and J.E.S. Thompson. They explained that the Classic Collapse was caused by seven different possibilities: climatic change, the exhaustion of the soil, epidemic diseases, earthquakes, war, national decadence and religious and superstitious causes (Webster 2002: 217). With the increase of studies in the Maya region in the 1960s, and the discovery of new evidence, experts started to create new models that emphasized the study of specific collapses. So far, more than 100 theories or hypotheses concerning this subject exist (Webster 2002), such as natural causes, like climate change, and cultural activities, like war or internal rebellions. In this chapter I am only going to mention some of the most influential models.

Climatological Factors

Using climatological factors to explain the Maya Collapse is based on evidence of climate change that produced a drought that affected the entire Maya Region around 700 AD (Lucero 2002: 820, Gill 2000). This theory focused on the importance of the control of water sources that played a critical role in the florescence of Maya civilization,

and also the later collapse (Lucero, 2002). In the last decade, Lucero proposed that in the large regional civic/ceremonial centers Maya rulers lost the means to control water in the Terminal Classic because of climate changes, resulting in the collapse of power. She argues that sites like Tikal, Calakmul and Caracol each had artificial reservoirs constructed near monumental temples that clearly show their success in expanding and maintaining their political base through water control and integrative events. But this power started to vanish with the decrease of rainfall caused by the climate change, during which all the water managements systems were failing. This shook the foundation of regional rulers. The problem was more visible in sites located in higher elevations, where artificial reservoirs no longer fulfilled daily water needs (Lucero 2002: 860-861).

Climate change also is used to explain the first Maya Collapse that occurred in the Terminal Preclassic period (Hansen *et al* 2008: 38, Webster 2002, Estrada-Belli 2010). In this particular case the archaeologists found through taking cores and making trenches in the *bajos* (seasonal swamps) used as water sources around the sites of Mirador and Nakbe that a climate change provoked the collapse of the area between the Preclassic and Classic periods (Jacob 1994).

The theory of climate change in times of the ancient Maya is supported by good data collected at different sites around the Lowland Maya region, but it is not always consistent. For example, in the Usumacinta region a drought is not detectable. This evidence suggests that the local water sources were not affected in the same way as in the Petexbatun region or the Mirador basin. The cities is the Petexbatun collapsed before the

cities where the drought was detected, proving that in this region the decline was more likely related to a political disputes (McAnany and Gallareta 2010: 155).

Demographic Theory

The study of the density of inhabitants in the Maya Lowland started to be a priority in some archaeological projects in the 1960s and 1970s. At this time the New Archaeology began to argue that the ancient cities were not only ceremonial centers, but rather were complex urban zones where diverse people interacted and lived. The study of the demography of the centers, especially at Tikal (Haviland 1969 and 1972), produced astonishing data that allowed archaeologists to establish that centers like Tikal were occupied by more than 29,000 people in the central area (Haviland 1972). This information refutes completely the idea that these cities were only for priest and ceremonies. With the utilization of these models, archaeologists also established that the population density was different in each period for many ancient Maya sites, and in the majority of them the maximum number of inhabitants occurred in the Late Classic (Culbert 1973, Abrams and Rue 1988, Sharer 1998, Houston and Inomata 2009).

After establishing that the Late Classic was the time when the cities were most densely populated, archaeologists started to question if this demographic growth was the caused of the Late Classic collapse. One of the first studies of this matter was presented by Patrick Culbert in 1973. For him the causes of the collapse of Tikal that occurred between the ceramic phase Ixim (750 AD) and Eznab (850-950 AD) was due to the change of the size and distribution of the population (Culbert 1973: 67). He argued that the continuous high population density at the site of Tikal must have stretched local food

supplies. Culbert thinks that Tikal did not have enough land for agriculture, in particular slash and burn agriculture. He also believes that in the Late Classic Tikal elite developed a solution to this problem through the importation of foodstuffs or protein-rich dietary supplements. This made the site more vulnerable because Tikal's enemies could break the commercial roots by refusing to provide food and other resources generating an economic collapse (Culbert 1973).

Another consequence of population growth for some experts is deforestation (Abrams and Rue 1988, Hansen *et al* 2008). Abrams and Rue argue that the higher number of inhabitants at sites generated ecological mismanagement, leading to reduced productivity of the agricultural systems responsible for the depopulation of large urban centers. The importance of arboreal resources to the ancient Maya suggests that deforestation resulted from extensive clearing of foothill zones for agricultural and habitation purposes and from the upland forests zone for domestic purpose of cooking and heating. This generated accelerated levels of soil and nutrient loss through erosion, considered primary in stimulating political instability and encouraging the gradual abandonment of major centers (Abrams and Roe 1988).

War and Invasion Theories

The theories about war as a cause of the Classic Maya collapse are diverse, ranging from wars between neighboring cities to long-distance invasion by foreign cultures. One early archaeologist to propose the collapse was caused by war and invasion was George Cowgill in 1964 (Adams 1983: 30). He proposed that the city of Chichen Itza in the northern Yucatan, well known for having two different stylistics types of

architecture and art, was caused by the invasion of a foreign culture. He proposed that Chichen Itza suffered a depopulation caused by wars and slavery that generated a good opportunity for an invasion by the Toltecs, who established a new ruler. Theories of invasion also have been proposed to explain the collapse of the site of Altar de Sacrificios in Guatemala (Sabloff and Willey 1967, Adams 1983,). But in this case the evidence only explains the collapse of the city and cannot be applied to the region.

In recent years experts in the Petexbatun region started to study the decline of the major cities after the seventh or eighth centuries. In his book *Ancient Maya: The Rise and Fall of the Rainforest Civilization* (2004), Arthur Demarest proposed that the collapse of the Petexbatun region was caused by warfare. For Demarest, the processes started in the early seventh century, when a new regime affiliated with Tikal was established as a military outpost of the Tikal alliance in the Petexbatun region, with its seat at the site of Dos Pilas (Demarest 2004: 249). The inscriptions found at the site confirm that, after this, the new regime Dos Pilas started to wage wars against different Maya cities. The first war recorded occurred in the mid-seventh century when Dos Pilas was conquered by the ruler of Calakmul and became a part of a regional alliance that started a war against Tikal. This alliance was very successful for the dynasty of Dos Pilas, and in time it gained control over one of the most important commercial routes that connected the lowlands and the highlands. During this period Calakmul was defeated by Tikal, and Dos Pilas created a new center regional at nearby Aguateca.

The hegemony of the capital in Petexbatun started to show some cracks as years passed. In 760-761 AD Dos Pilas was defeated and perhaps destroyed by the ruler of

Tamarindito, a neighboring kingdom (Demarest 2004: 253). The elite of Dos Pilas moved to the site of Aguateca (Inomata 2003) but this capital did not escape the war, and in the year 800 AD, their enemies burned the capital. The last major city in the region was Punta de Chimino, located in a naturally defensible peninsula in Lake Petexbatun; this site was the only one that continued erecting public architecture into the late ninth century. Gradually the city of Punta de Chimino was abandoned in the tenth century, at the very end of the Late Classic era (Demarest 2004).

Chapter 3: Ancient Maya Architecture

Maya architecture is a constant theme in archaeological studies and publications, covering various topics such as function and meaning of architecture, techniques of construction as well as more technical studies (Marquina 1964, Houston 1998). In Maya cities of the Late Preclassic and Early Classic, the most outstanding architectural groups were located in the principal plazas, where temples, ceremonial structures, funerary temples and palaces were erected. But cities also by nature had residential structures, which were located at the center of the cities and in the surrounding area.

To define the nature of different architectural groups within larger sites, archaeologists have created classifications and concepts to determinate the function of each one. One of the first to establish the types of groups and plazas that existed in a city was Marshall Becker, who focused on the various groups found at Tikal. He created a thematic abstraction that can be recognized as an aspect of groups or structures. The concept was developed to recognize or deal with groups that look alike (Becker, 1971:141). This work was quite valuable because it used data from excavations and the study of architectural forms to determine the function of each group in Tikal. In the Maya area, scholars have continued to use Becker's model, or one similar, to define the role of each of the groups and structures that compose it. Another valuable model was the one created by Gordon Willey to explain the settlements of the Copán Valley, which he divided into a series of hierarchical types based upon the size and elaboration of their constituent structures (Willey *et al* 1978, Willey and Levental 1979, Fash *et al* 1992).

Ancient Maya cities are organized in many different ways. The major center did not look the same at each site; it is possible that they did not have a standardized view of how the city should look. These variations were caused by one important factor: they had to adapt to the natural landscape. In the Lowlands there is a lot of variety in the landscape and each city had to adapt to, and modify, the area. The planning of each city was different, but all of them had essentially the same kind of plazas and architecture. The major center always had a palace complex, ballcourt, ceremonial structures, open plazas, residential structures, causeways, and water reservoirs. In this chapter I will review only the structures that were located during our research at El Diablo, and describe concepts of what defines a palace, a ceremonial structure and a residential area.

3.1 Residential groups

The formal study of residential areas began in the 1950s, in the transition between the stages of archaeological history described by Trigger as Institutional Research and New Archaeology (Trigger 201, Sabloff 1990). At this time Gordon Willey (Willey 1956) and his team of archaeologists decided to investigate not only the ceremonial centers, or groups, in which most monumental structures were located, rather they began to dig the humble architecture located at the periphery and within the cores of cities. After this important work, other projects started to design research that would take into account the study of residential areas linked to the research of groups with monumental architecture. The Tikal Project, for example, mapped an area of approximately 16 square kilometers and excavated more than 50 structures (Puleston 1975).

It has been more than 60 years since these early studies of residential areas where various projects have given a closer look at the reality of the ancient Maya. Through these studies they have determined the types and function of architecture associated with residential groups, which vary in size and materials. The materials used and the size of the residential structures depended on the economic status of the residents within the population. It is generally established in the Maya region that the more distant the residential groups are from the epicenter, the more humble, as the structures were made of perishable materials that were erected on small platforms and placed around a small courtyard (Inomata and Houston 2009). In contrast, residential groups belonging to the nobles were located in the center of the settlement. These are more complex and their structures were erected with the best quality materials, using carved blocks of limestone. These buildings were often also covered by a layer of stucco.

The method of identifying residential areas is usually determined on the basis of archaeological materials recovered inside of structures. It is generally assumed that such artifacts have a clear domestic function, like the presence of simple pottery without much decoration, and also have areas of economic activity, like the production of lithic artifacts. In Mesoamerica, the site that perhaps has the best understood residential areas is Joya de Ceren in El Salvador due to the eruption of different volcanoes in the vicinity of the settlement. The site underwent a number of abandonments in which people left all their belongings in their houses, and these were covered by three meters of ash. The ash is like a sealed time capsule from the Classical period that archaeologists have just began to reveal in the last decades. Among the most remarkable data from this site is the

evidence that residential areas had individual structures for specific activities. For example, it was determined that each house had kitchens, structures for sleep, warehouses and work areas (Sheets 1979).

3.2 Ceremonial Groups

Ceremonial groups are the most studied architectonic assemblages in the Maya area and have captivated archaeologists who have visited the area from the first explorers until today. These groups are usually located in the center of the sites, and often more than one can be found in each settlement. These groups were erected in order to venerate the greatness of the institution of kinship and the ancestors. Usually these groups were where the nobles lived and conducted their ritual activities, despite the presence of several groups with monumental architecture, it does not imply that they had the same function. Many were built by the ancient rulers to commemorate their ancestors and legitimize their power, but also many of these groups had other specific functions, such as public ceremonies for celebration of solstices and equinoxes (Coggins 1980, Laporte y Fialko 1993: 9), or the end of a k'atun (Jones 1969) among others.

Ceremonial groups have of course always played an important role in the design and planning of a city. All the settlements have an alignment axis that they follow to construct the cities. For example, in the Preclassic period the majority of the cities followed an East-West axis (Solar axis) which marks the transition of the sun in the sky (Aveni *et al* 2003). This axis shows the importance that the sun played in Maya cosmovision; it is possible the Mayas built the cities along such axes so as to venerate the

sun. But in the Early Classic the ancient Maya radically changed the axis of the settlements. All sites gave more importance to the construction of structures along a North-South axis. In this new urban planning, the northern area was the more important, or secret, area and was the place where the palace complexes were built to commemorate the ancestors. At this time, veneration of the king apparently started to become more important. As mentioned earlier in this chapter, the groups inside of a city were composed of structures with specific functions, such as palaces, ceremonial structures, funerary structures, and administrative buildings. All of them were used by the royal family, the nobles, and also the court.

Palace Complexes

The most complex architecture found in the Maya area is the palace complex (Christie 2003). It is commonly located north of the main plazas, built on a top of a series of platforms and above a series of buildings containing multiple rooms. Most were made with fine masonry, stucco covering the walls, vaulted ceilings and had restricted access. The function of these architectural complexes is still debated. Some argue that these sets were residential (Webster 2001) and others believe they were only administrative (Rungalddier 2008). New studies suggest that these groups would be better termed palace complexes because it is the whole set of court facilities that maintained the royal family and its closest associates, as well as the larger institution of rulership in all its political, ritual and ideological dimensions, and provided the stage for royal drama (Webster 2001:144).

The largest palace complexes known to date are those found in cities such as Tikal, Copan, and Palenque, among others. They all have different architectural forms specific to their own region. But despite their obvious differences, archaeologists have been able to identify them in each city. Unfortunately it has been hard to understand how the individual spaces in the palaces were used, but we assume that this area was where the ruler and his royal court performed ceremonies and lived, and also was a place were important visitors stayed.

Administrative Buildings

Another group of structures found in or near palaces and the ceremonial plazas are administrative buildings. They are characterized by long structures built on stepped platforms. Such structures are difficult to identify through their archaeological materials. To date, many of the interpretations to determine whether buildings are administrative are based primarily on their architectural forms, and demonstrate that certain materials that are considered non-residential type are located. Usually the space of the rooms of these structures are narrow, and if the buildings have seats they are narrow, so we assume that these could not be used as a bedroom.

For all we know, within each city there were government buildings where they had to manage the assets of the rulers. The Maya themselves painted on ceramic vessels and carved monuments with scenes where the ruler is receiving goods inside of a building richly decorated with curtains and benches or thrones. It is therefore a good assumption that these structures existed in ancient times. Because in these scenes most characters are

members of the royal court, or nobles, it is assumed that they are within the palace complex, and possibly in another sector of site or outside the city.

Knowing exactly what kind of activities took place is currently impossible to determine, but research conducted by archaeologists at Copan led to the identification of a building there, Structure 10L-22A, as a council house or *popol nah* (Fash *et al* 1992). They determined this because the exterior of the building was decorated with fine masonry sculpture of a mat form (*petate*) and based on the shape of the structure they assumed that was used for administrative purpose. Another good source of information about the existence of administrative buildings is the ancient Maya inscriptions, which also refer to certain types of structures by specific names. For example, the term *nikte' naah*, which can be translated as a "flower structure," also has been identified at Tonina by Stephen Houston as another type of council house (Stuart 1998).

Ceremonial buildings

The ceremonial structure was of course another important component of ancient Maya cities. They were located in different areas within a site, and have different functions. In this range of ceremonial structures we can mention for example E-groups, which were used as astronomical observatories in the Preclassic period (Ricketson and Ricketson 1937, Coggins 1980, Laporte 1989, Aveni *et al* 2003). These were composed of a truncated pyramid with four stairways, one for each cardinal point. To the west, E-groups have an elongated platform on which three buildings were built, used to mark the exact dates of each of the solstices and equinoxes. The corpus of ceremonial structures in the Maya area is unknown, and so far only for some of these structures can we identify

exactly which kinds of activities took place. But because of the advancements in Maya decipherment in the 1980s, we know that the Maya had specific names for some kinds of structures. For example, the general term *naah* meant "structure" or "building," while *otot* meant "dwelling" or "domicile" (Stuart 1998: 376).

Another type of ceremonial architecture is the mortuary temple. Mortuary temples are found in residential areas as well as in the main squares. In both cases these are located in the eastern sector. In the residential areas, the inhabitants placed the structure in the east to create a shrine to venerate the ancestors of each family. In the palace complexes they built a pyramid in which they deposited the bodies of kings. The funeral pyramids in the Classical period are quite complex and they are usually the highest structures within the sites. Their shape is pyramidal and on top is a temple for private ceremonies. Inside the pyramid the remains of the deceased ruler were placed.

The funeral structure best known in the Maya area is probably Temple 1 at Tikal. It was erected in the Late Classic and was built to deposit the remains of the Ruler Jasaw Chan Kawill, who was one of the most important ruler at Tikal (Martin and Grube 2008: 47). The structure, which is 40 meters high, was built on the east side of the Central Acropolis, had nine platforms and above, a temple. This structure was one of the most beautiful buildings in the Classic period, and one which has not lost its importance. It has become one of the icons of nationalism in Guatemala.

Another famous funerary structure is the Temple of the Inscriptions, in which the Mexican archaeologist Alberto Ruz located one of the world's richest burials from the Late Classic period in 1952. The burial had a richly carved sarcophagus and the remains

inside the Ruler K'inich Jaanab' Pakal (Ruz 1973; Stuart and Stuart 2008: 96-97). All of these structures above captivated not only archaeologists, but also the attention of the media and the general public.

Another important funerary structure is 10L-16 in Copan, which contained the remains of the first ruler of that site, Kinich Yax Kuk' Mo (Stuart 2004: 215). The structure is located in the center of the Acropolis of Copan and started as a small residential structure called Hunal by archaeologists. According to them, this structure was the house inhabited by the first ruler. The structure was located by exploration in tunnels made by a group of archaeologists led by Robert Sharer at the University of Pennsylvania (Sharer *et al* 2004).

After the death of Ruler K'inich Yax Kuk' Mo (First Ruler of Copan in the Early Classic) his successor, Ruler 2, started a cult of veneration to the first ruler, who was his father. This veneration persisted for over 400 years. The following rulers were responsible for remodeling the building and placed decorative elements that formed his name. In the structure Margarita for example, which covered the structured Yenal and Hunal, a glyph was found in one of the platforms of the building that has been identified as the name of K'inich Yax K'uk Mo (Stuart 2004:232). Then this structure was covered by a new temple, named Rosalila (Agurcia and Traxler 2005, Taube 2004), built possibly by Ruler 8 (Stuart 2004: 32). Rosalila was decorated with masks that represented the first governor of Copan. The lower wall depicts the founder as an avian sun god with a quetzal bird headdress and open macaw beaks in his outstretched serpent wings. The cornices portray massive images of the founder as an avian sun god (Taube 2004: 280). The last

construction phase of the structure is known as L10-16. It was constructed in the Late Classic and also refers to the first ruler through its iconographic program. The structure has also Teotihucan style elements (Taube 2004: 265). The symbolism of the structure was essentially a shrine used not only to commemorate the first ancestor but also as a temple that was used to establish power by the rulers of Copan.

The architecture described above has also been located within El Zotz. So far we have identified three palaces. The first palace group is at the core of the site, which although the first stage of construction dates to the Early Classic period (Melendez 2008, Newman and Menendez 2011), its most intense construction occurred during the Terminal Classic period (Houston *et al* 2010). The second palace group is located north of the first Palace in the group Las Palmitas, which is located on a natural hill that was modified in the Late Classic period. The third group is located in El Diablo and dates to the Early Classic period. Administrative structures also were found in the different groups that make up the settlement of El Zotz. The ceremonial structures at El Zotz are the tallest structures are the site, and we at least succeeded in identifying a funerary structure, F8-1.

Chapter 4: Investigations at El Diablo

4.1 El Diablo Group

The ceremonial compound of El Diablo is located 1 kilometer west of the Main Plaza at El Zotz (Figure 3). El Diablo was built in the Early Classic Period on top of a hill about 1,109 meters above sea level (Nelson 2007: 6). El Diablo was visited for first time in 1970 by the explorer Ian Graham, who mapped 15 structures. The group was built on a series of natural platforms with an east-to-west orientation. The top of each platform was modified by the ancient inhabitants of El Diablo, who built residential areas and the Ceremonial Center.

El Diablo consists of four different patios (Figure 6). The first one is the Ceremonial Center, or Main Plaza, which was discovered by Ian Graham (Houston *et al* 2006: 2). The Ceremonial Center consists of a palace in the north section (Structures F8-6, F8-7, F8-8 y F8-9) and a possible administrative building (F8-2) in the south area (Figure 7). The west section contains two structures; the first one has the shape of a pyramid (F8-3) and the other a rectangular structure (F8-5). The east section of the Main Plaza has two structures; one of them s a long building (F8-5), and the other is a pyramidal building (F8-1). In the center of the plaza are two additional small structures (F8-18 and F8-11). Both of the structures have a different alignment compared with that of the monumental structures. Also, their architecture is simpler, suggesting they were built later than the rest of the Ceremonial Center.

The second group is the North Patio, located in a terrace below the Palace (Figure 6); this patio has three structures. The largest one is located in the western area (F8-14)

and forms a small patio with two other structures: a small L-shaped structure built in the north section (F8-16) and another one built to the east side of the group (F8-15).

The third patio of El Diablo is the East Patio (Figure 6), located in a platform down below and to the east of structure F8-1. The patio is made up of three small structures. One faces north (F8-14) that phase toward the south, another building facing is located to the east of the first (F8-12), and a third is a small structure is located to the south (F8-13).

The last patio of El Diablo, located on three modified terraces (Figure 6), is called the Far East Group. The first terrace is next to the East Group. This platform had an *aguada* and one structure in the southeast corner (G8-1). The second terrace has a small patio formed by three small structures: one in the north section (G8-4), another in the east (G8-3) and the last one in the south part of the patio (G8-2). The third terrace is below of the second terrace of the Far East Group, and consists of a single structure (G8-5).

In front of the hill of El Diablo another group known as El Tejon was found (Figure 8). This group was recently rediscovered by Alex Knodell and Héctor Ical Ac (Knodell and Garrison 2010: 390). The group is 400 meters north east of the El Diablo Main Plaza and was built on top of another hill. El Tejon has three natural terraces (Figure 9) that were modified by the ancient inhabitants of El Zotz. The platforms follow the natural landscape of the hill and are oriented north to south.

The first platform of El Tejon is to the south and does not have any visible architecture (Figure 9). However, there are several c*hultunes*, so it is possible that perishable structures were built in that area. The second platform has a series of small

structures located in each side of a crossway (Figure 9); this crossway is almost five meters wide and connects the second terrace with the third terrace to the north. The main plaza of El Tejon is located on the north platform (Figure 9). The plaza has four structures, two in the north part of the plaza (G-1 and G-2) and two located in the east section (H-1 and H-2). To the west the plaza does not have structures, with the intention of having a clear view of the El Diablo Main Plaza.

The program of excavation at El Diablo started in 2008 and continued through 2011. Excavations were also carried out at El Tejon in 2010 and 2011. The excavations were designed to understand the development and function of the groups. In the fourth field season (Gillot 2008b, Román and Carter 2009, Román and Newman 2010, Beltran and Román 2011) the project conducted excavations in fourteen structures, patios and plazas using different types of excavation techniques such as test pitting, cleaning of illegal excavations and tunneling. The data collected in the excavation revealed extraordinary information about the foundation of El Diablo, the function and meaning of the groups and provided a unique example of a process of abandonment at the end of the Early Classic. The following pages of this thesis will describe and discuss the development of El Diablo and El Tejon, but I will not include the descriptions of each excavation made by the project. I will instead describe the most important elements of the architecture and consider the function of each structure and group.

The data collected in the Valle de Buena Vista during the last six years reveals that the region has a fragmented history, with episodes of intensive activities of construction as well as abrupt abandonment of cities and groups; all of these episodes are

tied to the history of its giant neighbor, Tikal, and the geopolitics of the ancient Maya. The first inhabitants of the El Diablo group started to make massive modifications to the landscape in the Early Classic, around 250 AD. So far we do not have strong evidence to prove where these people originated, nor the reason why they choose that area to build the ceremonial center of El Diablo. But it is obvious the first inhabitants of El Diablo intended to built the ceremonial center in a defensive area, considering the difficulty of the topography and the inaccessibility of natural resources, like water and land for farming. It is clear that the decision to build the new settlements in a defensive area coincides with the abrupt ending of the Late Preclassic era (Figure 10).

Recent work at Preclassic sites in the central Maya area suggests that many of the sites were abandoned around 100 or 200 AD, perhaps caused by climate change and overuse of natural resources. The collapse of major sites in the northern Petén, such as Mirador and Nakbe, has been interpreted along these lines (Hansen *et al* 2008). Elsewhere in the central lowlands warfare has been interpreted as a major factor in the Preclassic abandonment of Cival (Estrada-Belli, 2010). However, the central area of the Petén, where the sites of Tikal and Uaxactun are located, and the Valle de Buena Vista, where the sites of El Bejucal, El Palmar and El Zotz are located, seems to exhibit a different pattern of development. The data collected principally at Tikal (Laporte 2003) and Uaxactun (Valdés 2005) revels that these main sites never were completely abandoned in the transition between the Preclassic and the Early Classic; they only shifted their ceremonial centers from one architectural group to another, normally choosing natural hills that provided protection to the royal families.

The only site in the central area of the Petén that suffered a complete process of abandonment is El Palmar, located 18 kilometers northeast of Tikal and 5 kilometers from El Zotz (Figure 2). El Palmar was built next to the largest source of water in the region. The first architecture at El Palmar dates to 400 BC, and was continually occupied through the Late Preclassic (Figure 11); however the site was evidently abandoned in the year 0 or 10 AD (Doyle and Piedrasanta 2011). The causes of its abandonment is still being studied, but it is possible that the end of El Palmar was caused by cultural changes similar to the ones described at Tikal, Uaxactun and Cival, because at year round, which is opposite of the sites of the Meseta of El Mirador. Research at those sites proves that the abandonment of Tikal and Uaxactun the end of the Preclassic period was caused more by cultural phenomenon than environmental, and affected the social organization and also the selection of the landscape for establishing cities during the Early Classic.

A possible parallel example comes from the case of Uaxactun. During the Late Preclassic Group H was one of the most important groups at the site where the inhabitants built monumental architecture decorated with masks. But by the end of the Preclassic, the residents of Uaxactun stopped using the group and moved to Group A, which was built in more defensive landscape (Valdés 2005). Similarly, in the region of El Zotz (the Valle de Buena Vista) the site of El Palmar was abandoned at roughly the same time, and many of the inhabitants moved to different areas to start new settlements; some of them maybe moved to Tikal or a more defensive landscape like El Diablo.

The earliest constructions at El Diablo date to the beginning of the Early Classic, but in an excavation conducted in the structure F8-4 evidence of Protoclassic ceramics,

mixed with Early Classic materials, were found between the first floor of the plaza and bedrock. This evidence suggests that that the Main Plaza of El Diablo was built in the transition between the Preclassic and the Early Classic periods (Román and Newman 2010). However in excavations in the last field season (2011), conducted by Rony Piedrasanta at the El Tejon Group, an elliptic substructure that has the same shape of the ones found in sites of Uaxactun in the east plaza of Group A was discovered inside the structure H-2 (Valdés, 2005). This find suggests to us that the group was first occupied in the Early Classic.

In Structure G6-1 evidence of another elliptic sub-structure was also found, but it was difficult to prove if was the same shape because the project did not have enough time to continue the excavation in that sector. Based on the form of the structure, it might date to the beginning of the Early Classic. This hypothesis was confirmed by the presence of ceramic material recovered under the floor of the substructure of H6-2 that dates to the Early Classic. For now we can argue that the two main areas of El Tejon and El Diablo were built at the same time, in the beginning of the Early Classic (250 AD).

The first major construction of El Diablo was the modification of the landscape. They cleared all the forest from the top of the hill and removed some of the paleosol. Leveling the top of the hill to make artificial platforms in the west section created more surface to build the Ceremonial Center and the residential areas that followed. The first structures of the Main Plaza are covered by layers of later buildings or renovations to the plaza, but excavations at the Palace and at structure F8-1 revealed some of this early construction. The first plaza at El Diablo has the same dimensions that the last phase

found in the Main Plaza of El Diablo, but with smaller buildings. In the north section under the last phase of the Palace in the structure between structure F8-7 and F8-8 remains of an earlier construction F8-8 sub-1 were uncovered (Figure 12). The form and function of the building is unknown, but it is possible that the structure was part of an earlier palace; the ceramic materials recovered date to the Early Classic (Román and Carter 2009: 93).

In the east section of the plaza under structure F8-1 other earlier structures were found. The first was uncovered in front of the stairs of F8-1, under two plaza floors (Figure 13). The structure may have at least two small stepped platforms, but it was impossible to determine the actual dimensions (Román and Carter 2009: 80-83). The second early structure was found under the structure of F8-1. The only remaining evidence of this structure is the floor and some of the blocks that were part of the building (Figure 14). The blocks were painted red and were found in the construction fill that was used to built the Solar Structure. Other blocks were reused in the funeral chamber. The function of the two structures is still unknown, but because of their location we can argue that at least the structure found under structure F8-1 was the funerary structure built for the first ruler of El Diablo, because his remains were found inside in a funerary chamber (Román and Newman 2010).

The next construction program in the Main Plaza of El Zotz is not clear, for two specific reasons: not all the structures within the Main Plaza of El Diablo were excavated, and only in one excavated structure were we able to completely reconstruct the architectural stratigraphy. At present it is impossible to have a more refined chronology

of the group from the first construction though the last phase of the Main Plaza of El Diablo. But for now we can confirm that the first buildings were smaller and simpler than the later phases.

The first monumental architecture at El Diablo started after the death of the first king. The structure F8-1 sub 1, also called the Solar Structure, is one of the most beautiful Early Classic building uncovered in the Valle de Buena Vista by the El Zotz archaeological project. The structure was a funerary pyramid that has on top a ceremonial structure covered completely by a complex program of sculpture, which has representations of different gods (Román and Carter 2009; Román and Newman 2010; Beltran y Román 2011). In the next section of this chapter I will provide extensive descriptions of the structure F8-1 (Figures 6 and 7). For now we can say that the Solar Structure is the only evidence of the second phase of the Main Plaza.

The last phase of the Main Plaza of El Diablo was built during the middle of the Early Classic phase and shows increasing complexity. The Main Plaza of El Diablo was the most important group during the Early Classic in the El Zotz area. The function of the group shifts between administrative and also as a place for public ceremonies. The most important buildings of the compound were the funerary structure Palace F8-1 and the Palace. The Palace located in the north section of the plaza (Figure 6 and 7), consists of four structures built above a series of platforms. The front of the structure faces the plaza, and had a building with two chambers on the top (Figure 15). The first chamber (south) had two front doorways and two small stairways used to access to the structure and the interior patio of the Palace. The second chamber has tall walls; the roof of the structure

was made out of perishable material, and the exterior was decorated with stucco masks. Unfortunately, the ancient inhabitants of El Diablo removed the stucco from the wall, though some pieces of the sculptures were found in front of the building.

The interior patio of the Palace contained another three structures, F8-6, F8-8 and F8-9; only one was excavated in 2009. Structure F8-8 is a temple in the northern section of the internal patio of the Palace (Figures 6 and 15). It faces south, and has a small building on top with two chambers. The first one is 1.60 m by 8 m long. For the second chamber it was impossible to establish the dimensions, but it was smaller than the first one. The evidence recovered in the excavation also demonstrates that the building was decorated with red painted masks, but like the decoration, they were removed before the group was abandoned. The shape of the structure is consistent with the palaces found in other Classic Maya sites (Runggaldier 2006, Webster 2004).

The rest of the structures at El Diablo were also built during the last phase; some of them may have early versions, but in our excavations we only liberated or investigated the final phase. The majority of structures at the Main Plaza at El Diablo, at least in the last version, were used for administrative or ceremonial proposes. The shape of the architecture was typically a series of long platforms, and on top they built a long a building with several rooms. Inside the rooms no archaeological material associated of residential nature was found and the function is unknown.

During the last phase of construction at El Diablo a necropolis was built behind structure F8-1 in what is known as the East Group (Figure 6). At least two of the structures in this patio showed evidence that they were built to serve a funerary purpose

(F8-14 and F8-13). In 2008 a funerary chamber was found in the north structure (F8-14), inside a looter trench. The chamber is 3 meters long by 1 meter wide, and has traces of red pigment (Gillot 2008b). Sadly the looters removed all the archaeological remains and artifacts. But, they left some artifacts like fragments of shells, fine ceramic fragments, two fragments of jade, fragments of a pyrite mirror, carved shells, rings made by shells, and wood (Gillot, 2008: 127) that show that the person buried in that chamber came from the highest status level of El Diablo.

The second structure that was use for funerary functions was F8-13 (Figure 6). In the last field season (2011), in the process of cleaning of a looters trench in the back of the structure, the traces of the roof of a funeral chamber were found on the top of the tunnel (Beltran and Román 2011). But this one collapsed and the walls and floor of the chamber were not found, only a couple of blocks that normally are used to build funerary chambers.

4.2 Structure F8-1

The pyramid F8-1 is located in the southeastern section of the Main Plaza of El Diablo (Figure 6 and 7). The structure was documented in 1978 when the architect George Andrews visited El Zotz; He took some pictures of El Diablo and structure F8-1, in particular focusing on the south tunnel that was made by looters (Figure 16a. Inside the tunnel he recognized a substructure decorated with a program of stucco masks. When the El Zotz project visited El Diablo in their second field season we noticed that the trench

was completely collapsed and the substructure that Andrews documented was destroyed, and with it 40 percent of the structure (Figure 16b).

The El Zotz archaeological project started to work at El Diablo in 2007, when the project directed by Stephen Houston and Héctor Escobedo first set out to document the looters trenches around El Zotz and El Diablo. Juan Carlos Melendez and Ana Lucia Arrollave drew the east tunnel of F8-1, during which they discovered a substructure with two chambers painted in red and strong evidence of ritual activities involving fire (Arrollave *et al* 2007).

Excavations at El Zotz started in 2009 and continued through 2011, directed by the author who collaborated with Nicholas Carter (2009), Sarah Newman (2010), Boris Beltran (2011), and Stephen Houston. The excavations in structure F8-1 focused on four important goals. The first one was to understand the architectural stratigraphy, using pits to uncover some of the architecture of the final phase of F8-1 and tunnels to uncover the remains of early versions of F8-1. The second objective was to establish which kind of process of abandonment the structure suffered in the final version of F8-1. The third objective was to establish if all the versions of structure F8-1 had stucco masks attached, and identify if the theme was the same through the development of the structure, and if so, why? The fourth goal was to determine the function of the structure.[1]

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[1] Here I will not describe all the lots, units and operations of the excavation itself; rather I will only describe the architectural sequence, or development, of F8-1. If the reader wants to know more details about the process of excavation, I recommend the report of 2009, 2010 and 2011. The nomenclature of F8-1 will appear in the reports as operation 5, sub-operation B (see http://proteus.brown.edu/landscapesuccession/Home and http://www.mesoweb.com/zotz/).

In the beginning structure F8-1 consisted of a small structure with walls painted in red (structure Colorada). The blocks of this first structure were found along the construction fill around a funerary chamber, in the deepest pit that we made in 2010 (Román and Newman 2010: 129). These blocks were also reused to create the funerary chamber that contained the ruler of El Zotz. The only remains of the first structure are two stucco floors; the earliest one was built above the bedrock and the second floor was found directly above the first one (Figure 17). In front of the first version of F8-1 (Sub 3) across the plaza to the east another small structure was found. This one had 2 small terraces, but we do not have more evidence of the shape and functions of these two structures because they were completed dismantled by the fires set by inhabitants of El Diablo (Figure 13). They were also covered by later versions that make it difficult to interpret their function. There are no diagnostic ceramics for these two structures, but we think that the structures of the first version of F8-1 dates to around 250 or 300 AD.

The construction of the second phase of F8-1 involved a lot of physical labor and material, showing the economic power that the second ruler of El Diablo had (Figure 17). This structure was named the Solar Structure (Sub-1) and in front had another sub structure (Sub -2), known as the Shrine. The Sub-1, or Solar Structure began with the construction of the funeral chamber. We assume that the construction of this funerary structure was planned, and maybe started, when the ruler was still alive; it is also possible that the tomb was built by the successor of El Diablo. The first step in the construction was to remove substructure 3 (Structure Colorada) and break the interior floor of the sub-structure. Next they cleaned the area and started to build the structure on top of the

bedrock. The funerary chamber is oriented north to south; that is the normal orientation for burials at El Zotz in the Classic Period. The chamber was built with limestone blocks, some of them belonging to the first structure of F8-1. The reuse of the first structure as a shrine, or for the veneration of ancestors, is common in the Maya area. The most famous example is the case of the tomb of the ruler Yax K'uk Mo', who built the temple of Hunal in the Early Classic Period at the site of Copan, that was later reused as an ancestor shrine after his death (Taube 2004).

The preparation of the tomb was a complex process (see the following section in this chapter). To the west of the tomb they built a cylindrical sculpture that can represent a Maya god or a Witz (Figure 18). The sculpture was likely part of the sequence of rituals that took place soon after the first ruler of El Diablo died (Figure 19). The tomb was open for an extended period of time and the sculpture in front was used as a place to make offerings, or start a fire, because on top of it has traces of a resin that could be *copal* or another type of material. When the funeral ceremony was over, the survivors of the king covered the tomb and the sculpture with a new plaza floor. On top of the plaza floor the Maya then designed a new structure, a place to venerate one of the first rulers of the dynasty. They created a small pyramid, maybe with two or three terraces, and on top built a temple (Solar Structure) and in front of that, they left a open area in which they built a shrine (Figure 20).

The temple on top had two chambers with a vaulted ceiling and a roof comb. The first chamber was facing west and was ten meters and seventy centimeters long by one meter and fifty-four centimeters wide. The second chamber has smaller dimensions. It is

nine meters long by one meter and eighty-six centimeters wide, and also has a ceremonial bench that is one meter ten centimeters wide painted in red. The interiors of the two chambers were also painted red.

As for decoration, the structure was covered with a massive program of stucco masks along the frieze and the external wall of the building. In the process of excavation it was noted that the structure had two different layers of stucco masks. The first program was made at the same time the building was constructed, and the second program of decoration was made after the structure suffered a structural problem that affected the sculptures attached to the walls and frieze. The only visible sections of the first program in the structures were above the masks in the northeast corner of the building and in the west wall of the temple. That makes it impossible to identify the iconographic motifs because they can not be accessed, but we assume that it could be the same iconography used in the second program.

When the structure was still in use during the Early Classic it suffered a structural problem caused by the heavy weight of the roof comb. The only way the ancient engineers could fix it was to build another interior wall inside the first room. That made the interior of the first chamber thinner. They also added a new wall attached to the door between the first and second chambers. After they stabilized the structure they added a new floor and created a new program of art. The new program of art covers the lower walls, the frieze and also the roof comb. Above the door the artist modeled a face of the Jaguar God of the Underworld (Figure 21), which is the largest mask on the facade and also the center of the iconographic program (Román and Carter 2009: 84). The mask was

painted red and above his face is a headdress with a glyph that can be read as *ak'bal*, or "darkness."

Next to the mask of the Jaguar God of the Underworld another mask was found; this one was inside of a niche and also painted red (Figure 22). The walls on the east face of the Solar Structure were decorated with another program of art that represents two deities. One of them was completely different than the one found at the frieze, but the biggest masks is another representation of the Jaguar God of the Underworld. Sadly the masks were very damaged, perhaps from when the building suffered constructional damage, or they were intentionally removed when the structure was covered by the new construction phase. The only part of the mask that survived was the earplug and two glyph-like elements (Beltran and Román 2011).

The second set of masks was located between the entrance of the building and the mask of the Jaguar God of the Underworld. The masks are representation of a face of an unknown god that are, inverted or looking up (Román and Carter 2009: 84). It is curious that the masks were facing up, and the faces did not have high relief (Figure 23); the nose and the mouth were only incised.

In the back of the building, the east façade, the structure once had five masks (Figure 24) in the frieze, but our excavations only uncovered three. The first was located at the center of the structure and represented the Sun God mixed with some representation of a mythical monkey (Figure 25). The mask has an open mouth, and the eyes were painted in colors such as orange, black and red; above of the face is a diadem that was intentionally destroyed in the same way as the nose. On top of the diadem the

mask has a headdress, which could be a three-dimensional glyph. Unfortunately, it was intentionally destroyed by the ancient Maya (Román and Carter 2009: 83).

Two meters north of the first mask a second mask was found. This mask also represents a Sun God, but the face was depicted in a different way (Figure 26). The eyes are similar to the first mask, but it also has a horizontal folder band, similar to the one found on the Jaguar God of the Underworld. This mask also shows evidence of intentional damage in the diadem, nose and the glyph above the mask (Román and Newman 2010: 123).

A third mask was found at the northeast corner of the frieze (figure 27). This mask also represents a Sun God (Román and Newman 2010: 124), but the eyes has the shape of an L. Stephen Houston suggests this shape is more common in the Late Preclassic but also its normal to find it in the beginning of the Early Classic (Houston personal communication 2011). Another important part of the art program is the utilization of a celestial band, which was placed between the masks (Román and Newman 2010: 123).

The north façade of the structure also has monumental art in the frieze and on the walls. The frieze was decorated with a sculpture that represents the deity Chahk, (Houston personal communication 2011). The mask of Chahk (Figure 28) is well preserved and does not have any evidence of intentional damage, with the exception of the diadem. On top of the diadem the headdress has a glyph that represents an early version of the glyph for *chan*, "sky." The north wall was partially excavated, and right under the face of Chahk a motif that represents a human foot was found. Normally this is

associated with the cardinal points, or represents the path of gods. Unfortunately, the stucco on the wall was too fragile to continue the excavation.

In front of the Sun Structure, at a distance of 1.10 ms., the Maya built a small shrine. This structure was only 4.5 meters long and 2.0 meters wide (Figure 29). It is orientated north to south and has two entrances: one in the west (facing to the plaza) and the second one to the east, facing the Sun Structure. When the ancient inhabitants of El Diablo built the shrine they also made a new floor between these two structures that made the entrance to the Sun Structure only one meter tall; that makes it almost impossible to go inside the building. The structure was painted red and the frieze only is decorated with niches within two small square holes in the north and south façades (Román and Newman 2010) for light or smoke. This shrine is very similar to a shrine found at Caracol (Chase and Chase 1987); the shrine at Caracol also marked the exact location of a tomb.

The Solar Structure and the Shrine were replaced by new construction (F8-1-second), but before they started to build the new structure, the ancient Maya held special ceremonies, involving fires. The program of masks was intentionally damaged, specifically the nose, diadems and the glyphs above their headdresses. After that they started to fill the interior of the structure carefully without causing any further damage.

There is not much evidence of F8-1-2nd. The only part that survives is the floor (Figure 17), It is possible that the sub-structure was completely destroyed when the south tunnel, made by looters, collapsed. The sub structure of F8-1-1st also was completely destroyed by the collapse of the looters tunnel and only was found in the profile of the illegal excavation (Figure 17).

The last phase of construction of F8-1 was a pyramid, on top of which was erected a temple with two chambers. Our excavations in 2009 and 2010 revealed that the last phase of F8-1 was originally decorated with masks (Figure 30), but in the process of abandonment the stucco was removed from the walls and friezes. So far the excavations of Structure F8-1 demonstrate that the first structure F8-1 sub 3 is one of the earliest structures at El Diablo. It is possible this structure was built by one of the first ruler of the dynasty of El Zotz, and when he died his survivors started a cult to him, which included the construction of a shrine to commemorate his life and his future as a divine ancestor. The veneration of the first ruler of El Diablo lasted at least 200 years, when the elite family or group that had occupied El Diablo finally decided to relocate to another area.

4.3 Burial 9

All societies have their traditions, beliefs and ceremonies. When a person dies, since death extends beyond the biological stage, it is necessary for society to create a transition between life and death. One way society responds to death is by creating special places, such as tombs, shrines or funerary structures (Ciudad Ruiz *et al* 2005: 1); this process is part of the ritual tied to religious beliefs. In the present chapter I will describe Burial 9, which I believe belongs to the first king of El Zotz named Chak "Fish-Dog" Ahk. The evidence is strong that he was the individual buried inside the funeral structure F8-1 in the Early Classic and was venerated by the ancient Maya of El Zotz for at least two hundred years following his death.

Ancient Maya religion and rituals have been described since the conquest by Catholic priests who documented some Maya tradition, including the veneration of

ancestors (McAnany 1995: 22) and ceremonies related to death. These ceremonies were connected with the way the Maya understood their world, which is composed of three layers. The first one is the upperworld, were the gods live. It has 13 layers. The second world is the earth, which for the Maya was a living thing represented by a number of different metaphors, such as turtles or crocodiles floating upon the sea (Fitzsimmons 2009:18). The third layer is the underworld, a place of the supernatural. Some archaeologists believe that the underworld was a place of darkness where the gods of darkness lived (Sharer 2006). It also was the place where the dead had to cross before they where reborn to become supernatural ancestors. The ancient Maya represented the three layers on polychrome ceramics, murals and books.

I would argue that another source of information for the concepts of death for ancient Maya is their natural landscape, which was occupied and used at times to be a reflection of their cosmological view of the world. For example, at El Zotz, the most important groups and natural landscape seem to form a cosmogram. To the east, were the sun rises, a crag is visible on the escarpment in which millions of bats live. At the west is the El Diablo Group, which has architecture and art associated with concepts of the underworld, the place were the sun starts his journey to the underworld every day. The third part of the cosmogram is the Las Palmitas Group that has a structure that may have functioned as solar observatory. And the last part of the cosmogram is the South Group (Román *et al* 2011). These elements normally are found on a large scale, like the composition of a site, but also on a small scale.

The study of death among ancient Maya started when the first archaeological projects dug inside structures, but the first work that attempted to understand death through the archaeological remains was the dissertation of Alberto Ruz. He compiled data from more then a thousand burials from different sites. His work demonstrates how complex and diverse the burials were, and he concluded that the Maya did not have a single kind or type of burial (Ruz 1989). However, in the Maya lowlands, thanks to the number of burials found over the last two decades, it is now possible to identify some similarities and local variants that give us more data to support our understanding of mortuary rituals. One of the similarities is that the Maya buried their ancestors beneath the floors of houses. This tradition started during the Preclassic period throughout Mesoamerica and continued until the Post-Classic (Joyce 2005). Rosemary Joyce argues that the first people who started to bury the dead in their houses were the commoners. This was later replicated by the elites who replicated this tradition on a larger scale, building monumental structures in which they buried kings and royal families. Another interest that developed out of this burial data was that we were able to recognize the rank of a person in society based on the goods associated with the burial and the preparation of the place were the body was deposited.

The difference between a commoner and an elite person is usually quite obvious in burials. The burials of elites are more complex than the commoner burials, especially the burials of kings. The kings' burials normally were located inside a funerary temple that was associated with the underworld or caves. The best study of royal tombs and their social implications in Maya society was produced by James Fitzsimmons (2009), who

focused on the burials of kings in the Maya lowland using archaeological and epigraphic data to understand their complexity. Royal tombs are important because of the amount of information they produce, and normally they have well preserved organic artifacts that are hard to find in other contexts. So far the best way to identify a royal tomb is by the place where it is located and the offerings inside, normally a royal tomb has artifacts such as jade, ceramics, textiles, shells or another marine artifacts, wooden platforms, pyrite and hematite.

In the case of Burial 9, which is located in the structure F8-1, the evidence shows the remains maybe belong to the first king of the dynasty of El Zotz, Chack "Fish-Dog" Ahk (Houston *et a,* 2010). So far, we do not know where this king came from, or if his family always lived in the area prior to the foundation of El Diablo. But the archaeological evidence shows that the El Diablo Group was only occupied during the beginning of the Early Classic (250 AD) and was abandoned in the middle of the Early Classic (450 AD) (Román and Carter 2009). With that evidence, it is easier to establish that the tomb below belongs to the first king of El Zotz, but the El Diablo Group is not alone in the area, rather it belongs to a larger complex political organization.

For the past three field seasons the purpose of the excavations in structure F8-1 was to determine its function and meaning. To carry out this task we used several excavation techniques to expose architectural features from various construction stages of the pyramid. Two sub-structures were located inside structure F8-1. The first one, nicknamed the Sun Structure, is located at the southeast side of the group, facing to the west. The structure has two chambers and was painted red. The structure got its nickname

though because the exterior walls are decorated with at least 12 masks that represent different stages of the sun god. The may also represent ancestors with some features of the sun god.

Located west of the Sun Structure is a shrine, which is quite similar to one found at the site of Caracol (Chase and Chase 1987: 26, Fitzsimmons 2009: 136). Inside the shrine at El Zotz we decided to excavate a pit along the central axis (Figure 31). The excavation under the floor of the shrine exposed two caches of lip-to-lip orange bowls, containing human phalanges similar to the caches found at Caracol in Structure B19-2nd (Chase and Chase 1998: 308). The caches at El Zotz were wrapped in some kind of organic material and placed on the axis of the shrine (Figure 32). Under the caches we found a small triangle canal that was made by three slabs of stone covered with a thin layer of white stucco (Figure 31). The canal is oriented north-south and is only one meter long. This canal could be a *psychoduct*, similar to features documented at other sites like the Temple of the Inscriptions at Palenque. There archaeologist Alberto Ruz found a duct connecting the burial chamber of K'inich Janab' Pakal and the temple on top of the pyramid in 1954 (Ruz 1973), and at the site of Calakmul (Fitzsimmons 2009: 130). The function of a *psychoduct* is not clear because not many of them have been found. Linda Schele and Peter Mathews propose that these conduits were built with the idea to give the soul a way to communicate with the living people in the temple above (Schele and Mathews 1998: 109, Fitzsimmons 2009: 130). This assumption is based on iconographic data and confirmed by the *psychoduct* found at Palenque, which attaches the chamber under the structure with the temple above.

The canal found in structure F8-1 does not connect with any funerary chamber or the temple above. That makes it difficult to assign it the same function as the one found at Palenque. However, the kind of *psychoduct* found at El Diablo has strong connection with funerary architecture, because similar small passages were found in other early tombs at El Zotz and Bejucal (Grarrison personal communication 2010.). That makes me consider that this *psychoduct* could be an early version of a long-lived architectural feature near tombs, and with the passing of time the Late Classic canals became more elaborate and complex.

Surrounding the burial chamber another group of offerings and caches were found (Figure 31), one of them was placed at the stairs of the Sun Structure and the shrine. The cache consists of two orange bowls, placed lip-to-lip, which contain the remains of an infant between 2 or 4 years old (Burial 6). The cranium exhibits tabular oblique modification and also shows evidence that the body was exposed to fire (Scherer and Garret 2010: 229). The other group of offerings was located west of the funeral chamber. This set is more complex than the rest of caches found, and looks similar to a Maya cosmogram, formed with a limestone altar at the center and red lip-to-lip ceramic bowls set at each of the cardinal points (Figure 32). The lip-to-lip caches contain phalanges and teeth, similar to the caches found at the site of Lubaantún in Belize (Saul and Hammond 1974) and also at the site Cahal Pech in Tomb 2 where more than 200 small unslipped bowls with 225 phalanges were found (Awe *et al,* 2009: 179).

Burial 9 is located in a vaulted chamber built on the bedrock that served as a burial floor, common in royal tombs (Figure 31). Karl Taube proposed that the carving of

the bedrock is an analogy to the mythical conception of planting maize in the shell of the mythical turtle above the sea, and has a tie relation with the idea of continual death an rebirth of the maize god, that reinforce the famed Maya concept of cyclical time, which was devoid of personal interest or linear historical development (Taube 1983: 1). The burial chamber is located on the axis of the structure, and stratigraphic evidence suggests that it was built in the floor of the first construction phase of what would later become pyramid F8-1. The funeral chamber is oriented north-south, and measures 3.12 meters long, 1.25 meters wide, and 1.50 meters high. The four walls were made of limestone blocks and covered with mud, which indicates that this compound did not have an entry and therefore was sealed from the top.

Inside the tomb, the burial chamber had the remains of one individual (Burial A), who was accompanied by six children inside the funerary chamber (Figure 34). The study of the skeletal remains shows evidence that Burial A belongs to a 39 years old male (Scherer and Garrett 2010: 428). The individual was buried in an extended position lying on his back and oriented north-south, with the head in the north and the feet facing the south (Figure 35). During the excavation in the field and the examination of the remains by Dr. Andrew Scherer (2010) it was observed that the individual has some modifications; the anterior maxillary teeth exhibit inlays of jade and pyrite, also documented at the site of Uaxactun (Ruz 1989). The body of Burial A was deposited on some type of litter made of wood and decorated with green and pink stucco. This kind of platform has been reported at others sites, such as Calakmul Burial 4 (Carrasco *et al* 1999), Tikal (Fitzsimmons, 2009: 85), Rio Azul in Burial 19 and 23 (Adams 1999: 216)

and Altun Ha (Pendergast 1969). The individual in Burial A was buried in the regalia of a dancer, since over a hundred olive shells (Figure 36) containing the teeth of a mammal were found around the pelvic area, and the shells would have made a sound like a rattlesnake. Two mosaic jade masks (Figure 37) with three celts and three jade plaques were also on the belt. Other elements of the regalia we uncovered are two jade earspools, a shell beads necklace and a textile headdress.

The body was covered in red pigment, probably cinnabar or hematite, or a combination of the two pigments. Covering this was a layer of a brown material, which can be some kind of bundle made by textiles. The last material that covered the body was a thin layer of stucco. This type of treatment is very common among the ancient Maya. Experts think that the Maya bundled the bodies of the dead for two specific purposes. The first one related to body decomposition, in which the body was wrapped with the intention to help to preserve the body between death and burial (Reese-Taylor *et al* 2006: 53). The other hypothesis is related to religious beliefs. The Maya wrapped the bodies of the dead with the intention of preserving their souls (Reese-Taylor *et al* 2006: 54). In any case, what is clear is that the process of wrapping bodies was an important part of the ceremonies that took place when a person died. Wrapping is found at Burial 4 at Calakmul (Carrasco *et al* 2009), in burials at the site of El Peru-Waka (Rich *et al* 2006), and in Burials 19 and 23 from Rio Azul (Adams 1999: 219).

Burial A was surrounded by a rich inventory of artifacts, like pottery and wooden figurines (Figure 38). We uncovered almost 39 ceramics, including lids and bowls. The incredible quality of the pottery shows the power of the king, and his access to fine and

exotic goods. The pottery in the chamber is located on top of the bedrock and the biggest vessels are oriented north to south and situated under the wooden platform. Four sets are lip-to-lip, and those were used as funerary urns. Inside they had the bodies of Burials B, C, E, F and G. Burial B is located at the north section of the tomb and inside of lip-to-lip sets of Aguila Orange Basing (Figure 38). The bones were partially burned and incomplete. Dr. Scherer noted that one of the teeth is modified, and he estimates that Burial B was a child between 1.5 and 2.5 years old (Scherer and Garret 2010: 432). Burial C and E were located at the axis of the tomb. Burial C was inside of a set of lip-to-lip Aguila Orange Basing (vessels 11A and 11B), and only contained the teeth of a five year old child, suggesting that only the cranium was inside. Burial E was located in the interior Basing, stacked one on top of the other (Burial 13A on top of Burial 13B). The ceramic urns are two different types, 13A is a Triunfo Striated and 13 B is a Quintal unslipped. The bones of Burial E belong to 1 to 2 year old children, and are covered with cinnabar; the bones show evidence that the body was exposed to high temperatures (Scherer and Garrett, 2010: 433-435). Burial F was found between Burial E and Burial G, and was located inside of a set of orange basing set lip-to-lip. The burial is very similar to Burial C because inside was only the cranium of a 5 year old child. The funerary urn was also filled with black silty-ash substance, and a shell necklace consisting of 400 micro-beads. Burial G, was located in the southern part of the funerary chamber inside a set of two lip-to-lip bowls. The skeletal remains belong to an 8 to 16 month old child; these bones also show evidence that they were exposed to high temperatures (Scherer and Garret 2010: 433-437).

Burial D is the only one that is not aligned north south like the others burials; the burial is located between the east wall of the funerary chamber and Burial E. The burial was found inside a set of lip-to-lip bowls, one of them (12A) was Triunfo Striated and the other (12B) Aguila Orange Basing. The body belongs to a 2 years old child and the cranium is almost complete. In one fragment of the parietal possible cut marks were found (Scherer and Garrett 2010: 434); that suggests that the children may have been sacrificed.

The five funerary urns show evidence of having been exposed to some type of fire. Similar funerary urns were found also in Burial 167 in Tikal, and in the southern lowland Maya area. It is not common to find evidence of sacrificed children. In general is more common to find adolescent burials, like Burial 10 from Tikal (Coe 1990). According to William Coe, the grave had 9 young adults between 7 and 12 years old. He proposed that they were sacrificed, but they did not find any archaeological evidence to prove it. In other parts of Mesoamerica it is more common to find sacrificed children, as in the case of the discovery of a series of children between 0 and 6 years old in a ceremonial deposit excavated at El Ujuxte in the southern part of Guatemala were the skeletal remains showed evidence of cutting and burning that proved that these children were sacrificed (Aredondo 2002).

So far we do not know why the Maya sacrificed children. Besides the skeletal remains found by archaeologists we also find evidence of this behavior in ancient Maya art. For example, a polychrome bowl found in Justin Kerr's data collection (K1645), which shows a scene involving four characters, and in between them the Maya painted a

child inside of a ceramic bowl (very similar to the ones found at Burial 9 at El Zotz). On top of a wooden scaffold and under the ceramic bowl one can clearly see the representation of fire.

On the wooden litter in Burial 9 some Spondylus shells and an obsidian macro blade (knife) made from El Chayal obsidian were also located. The knife was examined by Kazuo Aoyama, who subjected the knife to microwear analysis. The result of this study suggests that it may have been a handheld sacrificial tool used to cut, saw and whittle human bone (Aoyama 2010: 468).

The rest of the ceramic offerings were located in different areas in the funerary chamber. One of these areas has a cluster of small ceramic vessels (vessels 3a-3B, 4, 5, 6, 7, 8 and 9), and some of them also show evidence that they were exposed to fire (3A-3-B, 7, 8). It is possible that they were part of an *Och K´ahk´* ceremony that involved the introduction of fiery elements into tombs or houses (Stuart 1998). This kind of ceremony has been reported at other sites, but normally the evidence shows that the fired was made inside the tombs. At El Zotz, the ceremony took place outside the tomb, because inside the chamber there are no indications of fire. Another cluster of vessels was located at the south part of the tomb, and are some of the most beautiful vessels (15A-B,17A-B, 18A-B, 19A-B, 20A-B 21, 22A-B). The ceramics have different types of surface finishes. The inventory includes five polychrome vessels, types Caldero Polychrome (5 and 6), and three red indeterminate polychromes (18A-B, 19A-B and 22A-B) that maybe were only made at El Zotz. The second groups are four monochromes incised and modeled vessels, types Lucha modeled-incised (1A-B, 15A, 17A-B, 20A), Urita gouged-incised (15B) and

Urita (20B). Four red monochromes types Dos Hermanos Red (8, 21 and 14A-14B) and one Siera Red (9); two brown monochromes type Pucte Brown, one Balanza Black (3A-B) and one Crème with hematite (10), all of them are diagnostic of the beginning of the Early Classic (350-400 AD). All of these vessels are associated with the ceramic complex *Saquij* from El Zotz (Newman, 2010).

4.4 The iconography of Burial 9

The art and iconography of the decorated ceramics vessels is complex and worthy of many theses in their own right; here I am only going to mention some of their most significant and important aspects. In Burial 9 the theme includes the representation of zoomorphic motifs (Figure 39), like monkeys (15A), macaws (19B) and a peccary (22A). Representation of an anthropomorphic motif is found on the lid of vessel 20A; representations of ancestors were found on the lid of vessel 19A and in the base of vessel 18B. The supernatural motifs are the richest iconography on the vessels. Vessel 17A-B represents a turtle with an open mouth with a god inside that maybe is a reference to being reborn (Figure 40). An incised brown bowl shaped like a quatrefoil (1A-B) has on the lid the representation of a mythical monkey patron of scribes and artists (Coe 1977) who is coming out from a quatrefoil motif (Figure 41). On each side there are four vertical sashes with representations of four gods and numbers. On the back of bowl (1B) are a representation of a centipede as a tail, and the Maize God in acrobatic position inside an incised quatrefoil motif. The lid of vessel 18A (Figure 42) is very similar to vessel 1A, but the motifs are painted. In the center of the lid is the representation of a

mythical monkey who is coming out from a quatrefoil motif; it has two verticals sashes also, and the tail of the monkey is the representation of a aquatic snake. The importance of these two vessels is that they use mythical motifs, like the quatrefoil, that some experts think represent a portal to the underworld, and its associated to watery portals, caves, elite power, super natural communication throughout time and due to their position can indicate a concept of centrality (Guernsey and Love 2007; Guernsey 2010). All the ceramics from the tomb have traces of use, suggesting that none of them were made only for the burial. But why were these vessels selected? So far I have two possible hypotheses. The first one is that all the ceramic vessels were part of the wealth of the king and the second hypothesis is that the some people from the royal court of El Zotz or other areas gave the vessels as tribute. Other evidence that confirms the idea that the ceramic vessels were not made exclusively for Burial 9 is that vessels 9 and 20B both are covered with white calcification that normally is found on materials recovered from a context with high levels of humidity and water. Maybe these two ceramic vessels came from a context like a cave.

The tomb also has unique artifacts that came from distant regions, some which are important because of the material from which they were made. Burial 9 had 15 cubes of hematite paste that was found at the southeast corner of the funerary chamber. The cubes have the same shape and weight that apparently was a common format for the exchange of this popular Maya pigment. Specular hematite was commonly used in ceramic production, architectural decoration, and many other contexts, and was hence a valuable commodity in the ancient Maya world (Hruby, 2010). Under the wooden platform also

were found ten Spondylus shells that came from the Caribbean Ocean that metaphorically transformed tombs into watery realms. In other words, when the Maya placed these artifacts in tombs the materials created the sense that the body has been set in a cave or upon an underworld surface (Fitzsimmons 2009: 90). But some of the most interesting finds uncovered from the tomb are the organic materials that normally do not preserve well in the Maya area. At the east wall were found two wooden vessels whose surfaces were covered with pink and green stucco (Figure 43), similar to the figurines of K'awiil found in Burial 195 Tikal (Coe 1990). But on the vessels from El Zotz the lid has representations of fish and birds and the vessel was made from a gourd, or another organic material, that has three peccary supports.

Textiles were also found around almost the entire floor of the tomb. The textiles were well preserved, but it is unclear if they belong to the regalia of the king, of it maybe they were textiles (Figure 44) that were use to cover the walls of the funerary chamber, similar to Tomb 12 from Copan and the burial B4/7 that was draped in cloth (Pendergast 1969: 22). Another possibility is that the textiles were part of an offering of tribute to kings, similar to the bundles of folded cloth we see painted by the Maya on many ceramic vessels.

Inside all the vessels traces of food and drink residue were found. The best example for food is the polychrome vessel 18B, inside which was found the remains of a Quail that could be part of a special food made for the king. Vessel 21 is a red jar that the Maya filled with some kind of fermented liquid that made the jar explode. It is possible the liquid was pulque (*chih*) made from the agave plant or Posole. The traces of food and

drink are obviously important; once they are fully analyzed chemically, as they will eventually allow us to identify the kind of feasting that took place during the ceremony when the king was buried or the food was placed as offering for the king.

Although there is good circumstantial evidence to suggest that the occupant of the tomb is Chak "Fish-Dog" Ahk, it is difficult to place the tomb in more historical or dynastic context. Unfortunately the historical records at El Zotz are few and far between, and there are numerous gaps in our knowledge. One simple reason for this is the bad preservation of the stelae. Moreover, the tremendous number of illegal excavations carried out at El Zotz since the 1960s removed many artifacts from the site. For this reason, it has been difficult to understand with more exactitude the history of the site. However, even despite with all these limitations, Stephen Houston has been able to reconstruct some of the dynastic sequence.

The dynasty started in 400 AD and lasted until 600 AD with the earliest king Chak "Fish-Dog" Ahk, who was in power from about 350 to 400 AD. So far, the excavation at the main group at El Zotz shows little evidence of monumental architecture at this time, and looters found the only two tombs in the area. It is impossible to determine when they were built. As noted, the best evidence of Early Classic architecture is the El Diablo Group, which has a palace and ceremonial architecture that was used by the royal court. For this reason, I argue that El Diablo is also the first place where the royal family buried their dead. The structure F8-1 is the most important ceremonial structure in the group. It is located in the eastern part of the plaza. This kind of plaza arrangement was first described at Tikal were the archaeologists of the Tikal project

found the tomb of the king Sajaw Chan K´awill (Martin and Grube 2008: 47, and Trik 1963).

4.5 The Abandonment Process of El Diablo

The study of the process of the abandonment of El Diablo started in the field season of 2009 when excavation above structure F8-7 revealed that the building was completely filled with a layer of rocks and a grey material composed of limestone, mud and pulverized limestone. In the beginning of the excavation we first hypothesized that the structure was being remodeled or a new phase was being built for F8-7. We then argued that perhaps the inhabitants of El Diablo moved to another area before they finished the construction (Román and Carter, 2009). However, in another excavation at structure F8-1, on the other side of the plaza, the evidence proved that both structures showed evidence of a similar phenomenon, where the structure was completely covered by rocks and a layer of the same grey material. But in Structure F8-1, the grey material was mixed with a deposit of ceramics and other cultural materials that showed us that what we were seeing was a more complex phenomenon related to the final occupation of the group and the process of abandonment. For these reasons we had to devise a set of questions. The first was to confirm whether the deposition of the grey material covered the entire group. While the second was to determinate if all of the grey material was deposited at the same time, and just how fast that deposition was. The third question was to confirm if the deposition of this material was a cultural phenomenon.

To answer this question we followed a particular methodology, for our investigation at El Diablo we excavated two sectors of each structure; the first excavation was placed in front of the structure and the second one was placed on top. The excavations were test pits of different dimensions and were excavated 11 structures on two different patios.

The Spatial Scale of the Abandonment

The El Diablo compound was important during the Early Classic; it was a place for ancestor veneration, it was the most important group at El Zotz at the beginning of the Early Classic, and was the highest point of social complexity. This is represented by the extraordinary architecture and the economical power of its inhabitants, expressed by the construction of sanctuaries and the wealth of the tombs. But in the middle of the Early Classic the group was abandoned after more than 200 years of continuous occupation. The inhabitants of El Diablo left evidence that helps us to understand how and when this phenomenon took place.

The Temporal Scale of Abandonment at El Diablo

A specialist who studies the process of abandonment can determinate how fast the process was by following a certain set of assumptions. It is taken for granted that the material culture found is a reflection of the final phase of occupation of the cities or a particular group. It is also assumed that the archaeological material is still in the same place that the inhabitant left it (Inomata 2003). This particular point of view was used to investigate the abandonment of El Diablo.

Data from the excavation in the Main Plaza show that the abandonment of El Diablo was a planned and slow process; it involved a lot of human effort and materials, which were buried in the interred group and plaza in the middle of the Early Classic, and revealed that the structures in the plaza were buried in three different ways: the first one was burying intact structures, the second process was destruction of temples and burying the structures and the third was the destruction of the temple and the utilization and make all the stucco decoration as a part of a termination deposit.

The first process, which consisted of burying intact structures, was found in two sectors: the Palace (structures F8-6, F8-7, F8-8 and F8-9) and structure F8-5. The best example of this first type of burial is the Palace where we excavated 12 units in F8-7 and four units in structure F8-8; the stratigraphy in all the excavations showed the same process of deposition in the first two strata (Figure 45). The first layer, or stratum, was the humus, which was a natural deposition after the abandonment of the Palace. The second layer consisted of a mix of limestone rocks, clay and pulverized limestone (grey material). The material used for the last phase of the Palace was a cultural deposition, because the material was intentionally placed (Figure 46), reflected in the collocation of limestone rocks in the front doors of the Palace (F8-7) and structure F8-8 (figure 47).

The process of abandonment of the Palace was planned; the inhabitants of the Palace did not leave behind any cultural material such as ceramics, obsidian or personal belongings. They took everything to the new area, and after that they started the process of mutilating the structures, during which they took the decoration off the building. The next step was to dismantle parts of the structures. In the Palace they took some of the

blocks off the walls in the front chamber of the structure. The process also involved the removal of the roof, which was made of wooden beams. The last step was to bury the structure (Román and Carter 2009).

Evidence also shows that before the material was deposited, the ancient inhabitants of El Diablo conducted an elaborate ceremony in which they used fire to burn incense, or some other type of resin, that produced a blackened area on the interior floor. Afterwards they placed ceramic vessels on the floor (Román and Carter 2009: 89) and started to refill the room. On the exterior of the building we also found evidence of ceremonies. This consisted of the deposition of the stucco removed from the walls of the building, which was placed in front of the stairs of the structures (Figure 48).

The best example of this kind of ceremony was the one found in structure F8-8, where the stucco was placed on the first step of the stairs and the stucco fragments were placed in such way to create a circle, and they were placed next to a layer of ashes mixed with ceramic fragments (Figure 48). The layer of ashes starts on the first step and continues to the third step, where a ceremony presumably took place before the structures were covered and forgotten. These two ceremonial deposits were maybe part of an Initiation Ceremony and after that the material of this ceremony was deposited with the grey material used to bury the Palace. It was a slow process that took a lot of human effort and materials, because in some areas like the second chamber of the structure F8-7, the layer of material was more of three meters deep (Román and Carter, 2009).

The second type of abandonment at El Diablo consisted of the destruction of temples; this was found in structures F8-2 and F8-4. We carried out four excavations in

structure F8-2 and six in structure F8-4 (Román and Newman, 2010). Both buildings were used for administrative proposes. Inside the structures no movable materials were found, suggesting that the ancient inhabitants of El Diablo took all the furniture to the new place. The buildings did not have any kind of monumental art as decoration; but no doubt they were painted red, which was a standard color used in ancient Maya architecture.

The process of destruction of F8-2 and F8-4 consisted of three steps. The first one was to remove the stucco from the terraces on top of which the building was erected (Figure 49). The second step was the demolition of the super structure. The third and final step was to cover the structures with a layer of limestone, dirt and pulverized limestone, the same material found in the Palace and structure F8-5. The ceramics recovered from this layer also date to the middle of the Early Classic; ceramics like Aguila Naranja, Triunfo Estriado and Dos Arroyos polychrome were found.

The third type of process used to bury structures was only found in structure F8-1. This structure was funerary, a place to remember the first ruler of El Diablo, F8-1 consists of a series of terraces that created a shape of a pyramid, and on top a temple with two chambers was built. The structure was decorated with stucco masks that represent different gods of the underworld.

The investigation in the structure started in 2009 (Román and Carter, 2009). Excavation in the temple proved that the structure underwent a similar process of abandonment found in structures F8-2 and F8-4. The only difference is that the stucco masks of the temple were placed outside of the front door of the temple (Figure 50). The

fragments of the stucco had different shapes and sizes and were placed carefully so that in some areas it was possible to reconstruct and recognize part of the iconographic program. The structure was decorated with modeled stucco, which was painted in red. Some stucco fragments were part of an earplug that has the representation for a shark on top. We also recovered a piece of the eyes, which has a spiral form incised as a pupil. Between the eyes a folder band, similar to the one use by the deity of the Jaguar of the Underworld, was found (Román and Carter, 2009).

As a part of the ritual of dismantling the structure, a ceramic deposit was found in front of the structure in the center of the stairway (Figure 51); the matrix of the deposit was a combination of ashes, pulverized limestone, and ceramic sherds. Evidence for the ritual appears to be only on the axis of the structure. It is almost 20 centimeters thick and was found on the first three steps of the stairs. Within the sherds three cylindrical vessels with their respective lids were found (Figure 52). Sadly all of them were eroded, but based on the shape these vessels could be used to drink *cacao* (Carter and Román, 2010). Following the destruction of the temple, the deposition of the stucco in front of the building, and the terminal deposit the ancient habitants of El Diablo started to cover the interred building.

The deposition of the material used to cover the structures at El Diablo was also found in the plaza. The layer of material was 0.50 m thick and was placed at the same time as the structures. The date of the abandonment of El Diablo can be placed in the middle of the Early Classic, between the ceramic phase of Tzakol 2 and 3. This data was confirmed because in the excavation of structure F8-18, which was constructed on top of

the grey material layer that covered the Main Plaza in an excavation in 2010 and the material recover in special ceramics date to the end of the Early Classic. That suggested to us that the structure was built in the ceramic phase of Tzakol III. Also, in some of the first excavations at El Diablo in 2008, green obsidian from this grey layer that covered the plaza was found (Gillot, 2008b). It is associated with the arrival of the Teotihucan culture to Tikal and the rest of the Maya area this arrival date by Tzakol III. Even though 40% of the ceramic recovered from the group is eroded (Czapiewska 2010) the study of the forms confirms that the ceramics that came from the grey layer belong to the transition between the ceramic phases of Tzakol II and Tzakol III; but, the ceramics that came from the interior of the structure F8-18 were dated to Tzakol III. This data confirms that the abandonment of El Diablo and its surroundings took place between 400 and 450 AD.

A layer of grey material was also found in the North and East Groups of El Diablo (Beltran and Román 2011) and the North terrace of El Tejon (Piedrasanta, 2011). The three patios, or groups, were also abandoned in the Early Classic. They used the same material found in the Main Plaza, where the layer of grey material was used to bury the structures and the plaza itself. The ceramics collected were eroded, but the forms are diagnostic of Tzakol II (Beltran and Román 2011). In the north terrace of El Tejon the same layer of grey material was also used to bury the structures and the plaza. In one of the excavations, in front of structure G-2, the ceramics recovered from the layer were Early Classic (Tzakol II). In another excavation in front of structure G-2 grey obsidian was found, which proves that El Tejon was abandoned during the same period.

The temporal scale in the abandonment of El Diablo was a planned and slow process that involved the mobilization of hundreds of humans that help in the collection of materials to cover the Main Plaza and residential areas. The reasons for the causes of the abandonment will be described in the next section, but it is clear that the ancient inhabitants of El Diablo decided to leave the mountainous areas between 400 and 450 AD, and they took with them all their belongings. After that they started the process of dismantling the temples, followed by a series of ceremonies of termination. The last step was to cover the buildings with rocks and mud.

Causes of Abandonment

The evidence recovered from the excavations in the Main Plaza of El Diablo prove that the Main Plaza of El Diablo was a place used to commemorate the dynasty of El Zotz and the royal family. It was the core of the site where we can assume different kinds of ceremonies were performed and other administrative activities also took place. Since the beginning of the study of the ancient Maya, archaeologists proved the importance of ceremonial centers where the rulers built structures that helped them to commemorate their ancestors, places that had symbolic meaning. In the Maya area normally sites experience a fast abandonment caused by catastrophic events, which leave a lot of material records to prove it. But in the case of El Diablo because the abandonment processes was slow and planned it suggests that the causes of the abandonment were cultural. From the data collected it is possible to hypothesize multiple scenarios.

The first scenario could be that the royal family of El Diablo was part of an old dynasty that lost its power to a new dynasty formed at El Zotz. This theory sadly cannot be proven archaeologically because there are no historical records to support it. So far we know that the Early Classic in the Valle de Buena Vista was intense, as evidence of Early Classic settlement is found in El Bejucal (Garrison and Garrido, 2009; Garrison and Beltran; 2010) and El Diablo-El Tejon (Román and Carter, 2009; Román and Newman, 2010; Beltran and Román 2011; Piedrasanta 2011), El Palmar (Doyle and Piedrasanta, 2011) and the main area of El Zotz (Houston *et al* 2011); the most complex groups for this period are found at El Diablo and Bejucal, which had royal palaces and also funerary structures.

In the case of El Diablo the ancient inhabitants created a cult to the first ruler, who was remembered through the creation of a pyramid decorated with different solar motifs over a period of 100 years. These data confirm that a royal family inhabited El Zotz; but this family, at some point between 400 and 450 AD, lost political power in the area. After this period the structures were destroyed and completely buried with a layer of rocks. This final step in the process of abandonment suggests that the people involved in the refilling of the group wanted to erase completely the memory of what existed there before. For this reason it would be more reasonable to think that those responsible for that act were foreign or just a competing lineage, and they refilled the group to show their power and completely erase the history of the dynasty of El Diablo.

This hypothesis has some problems. The first problem is that it is hard to believe that a group or dynasty that wanted to forget a place or a rival dynasty, would perform

ceremonies of termination and protect some the iconography of the masks in the structure F8-1, believed to be one of the most important structures in the group because of all the symbolism that the structure has. The second problem is the lack of historical records from El Diablo and El Zotz. So far we know that the early ruler of the dynasty of El Zotz dates to 400 AD based on hieroglyphic inscriptions (Houston, 2006), but the record did not mention that this ruler is the founder of the linage, which opens the possibility of having earlier rulers.

The second scenario that might have caused the abandonment of the group is that the inhabitants of El Diablo, which were part of the royal family of El Zotz, were sent to found a new city at the site of Yaxchilan. Like the site of Tikal that sent a part of the royal family to establish a new city known as Dos Pilas (Sharer, 2008), it is possible that the site of El Zotz was the city of origin for the royal family of Yaxchilan. This idea was proposed by Stephen Houston (Houston, 2006), who recognized that the site of Yaxchilan has two different emblem glyphs. The first emblem glyph is *pa'chan* (Figure 4), which can be read as Broken Sky or Fortress Sky (Houston *et al*, 2011). The second emblem glyph cannot be read, but has the shape of an ear. Both of them were the same emblem glyphs used by the royal family of El Zotz; that led him to suggest that they were related. Unfortunate the only way to prove this theory is with historical records and neither site mentions what kind of relationship the royal families had.

The third scenario for cause of abandonment is the rebellion of the people against the nobles. At other sites in the Maya region some archaeologists argue that there are sites that suffer changes, or collapses, because of a rebellion of the commoners against

the nobles. In the case of El Diablo this scenario is quite unlikely, because in excavations in 2011 in the residential areas the same process of abandonment was discovered. The structures were also dismantled, and structures and patios were covered in the same way that the Main Plaza of El Diablo was. Another important reason why I think the group was not abandoned because of a rebellion is that normally when a rebellion take place in the Maya area there is often evidence of acts of vandalism, which include the destruction of stelaes, destruction of the names and faces of the rulers, destruction of the public buildings and the tombs were looted.

But in the case of El Diablo, no evidence of destruction of the iconic temples or other types of behavior associated with a rebellion of the commoners was found. The data collected from El Diablo indicated that the people who planned the abandonment had a lot of respect for the area. A good example of this is the structure in the Main Plaza, F8-1, which has the closest relationship ideologically with the royal family and the king. It is the structure that shows most evidence of being treated with reverence during the process of dismantling and covering. In front of the structure a termination deposit was found, which means that the inhabitants covering the structure knew the importance and the symbolism of the structure; and they performed a series of ceremonies to terminate the structure.

The fourth hypothesis for the abandonment of El Diablo is that it was caused by an act of war or invasion from another city. Wars among the ancient Maya have been documented at many sites (Estrada-Belli 2010; Sharer, 2008). In the case of Aguateca, the site showed evidence of being attacked by a city in the Petexbatun region, causing the

royal family to leave the city and move to another site, maybe Tamarandito (Inomata *et al* 2002). Another source of information about the conflicts in the Maya area are the texts found in stelae, altars and other artifacts on which the rulers of each site document their incursions to other cities. The occupation history of the *Valle de Buena Vista* was never continuous. The inhabitants were always moving from one group to another throughout 1600 years of occupation. Surely this lack of continuity in the area has to be related to its proximity to the giant Tikal, its neighbor only 24 km to the east.

During the Tikal Project, the archaeologist Dennis Puleston found a defensive wall that was built by the rulers of Tikal to protect themselves from attacks of enemies, including El Zotz (Puleston, 2000). The wall between the cities (Tikal and El Zotz) suggests political distress during the Classic period, which can be confirmed. At least two ceramics vessels made at El Zotz, found in private collections and at other archaeological cities (Houston, 2006), establish that the ruler of El Zotz was allied with the site of El Peru, and not with Tikal, during the Late Classic. Nevertheless, a stela found in the site of El Bejucal, which dates to the Early Classic, mentions that the ruler of El Zotz had a relationship with the royal family of Tikal. This data suggests that when El Diablo was in a process of abandonment, the relationship with the two cities was peaceful.

The last scenario that might help to understand abandonment at El Diablo is closer to the contexts found in the excavation at the site. It is related to this phenomenon that the decision was made to move the settlement from the mountainous areas towards the valley, where the main area of El Zotz is actually located, following the political-economic decision made by the elite of El Zotz. This hypothesis suggests a scenario in

which the landscape is an important factor in the decision made by the elite during the development of El Zotz. Earlier in this chapter, I explained that the data indicated that the selection of the area to start a new city after the abrupt end of the Preclassic period in the Valle de Buena Vista was selected because it was a mountainous areas; this gave protection to the elite and also was a good area to show their power through the creation of a sacred landscape visible over long distances. In this process the rulers of El Zotz were aware of the consequences in building a city on the top of hills where it is more difficult to access natural resources; it is also a challenging landscape that makes it more difficult to build a city.

The occupation of El Diablo was short, but intense. The explosion of monumental architecture started in the Early Classic when the rulers began to build splendid structures decorated with molded masks. The magnitude of labor in the area was extraordinary and implies that the population around the settlement of El Diablo and El Tejon grew. This last factor could have caused a lot of stress in the area for two reasons. The first one is because the defensive topography of the El Diablo made it difficult to find key natural resources to support the growing population, such as water. In the area between El Diablo and El Tejon only one water reservoir was found, and it was not enough to support the growth of the population. The second reason for how the increase of population could affect the decision of the ruler to move the civic center to another location was that the area around El Diablo did not have sufficient territory to expand the settlement. Over the last five years the team of archaeologists in charge of creating a new map of the area found that the hill on which El Diablo and El Tejon were built is surrounded by vertical

cliffs, which make it implausible to build new groups for the inhabitants. The only option they had was to rebuild on top of the actual structures, or move the city to another area.

This last possibility of moving the city to a more open area was a good strategy for the leaders of El Zotz because in the main core of the site they had at least three water reservoirs, which were in use since the Early Classic (Garrison *et al* 2011). Also they could build more groups and monumental architecture. This decision to move the city coincidentally happened when the Valle de Buena Vista was politically stable. The inhabitants of El Zotz were part of a bigger network of sites, like El Bejucal and Tikal, and it was not necessary to be in a defensive landscape anymore.

This last cause of abandonment seems to be the most plausible for El Diablo because it is more realistic to think that a group that feels a connection with the structures, and the history of that specific group, would perform rituals and expend all the resources necessary to cover the sacred area where many of their ancestors were buried. It is interesting that after the abandonment of El Diablo only one family went back to live in the Main Plaza in the end of the Early Classic (450 or 500 AD). The structures were smaller and it is evident that they did not have any connection with the glorious past of El Diablo. But in the main area of El Zotz an ambitious program of pyramids and the first version of the Acropolis was started; for this reason I argue that the inhabitants of El Diablo moved to the main area of El Zotz to continue a new and bigger settlement.

Chapter 5: Conclusions

This thesis analyzes the process of abandonment of El Diablo, for which I used the model Study of the Process of abandonment used by anthropologists and archaeologists, to understand how societies abandoned cities, towns and small villages. In this thesis, the first step was to understand the history of the group. Based on the data collected during three seasons of the El Zotz Archaeological Project, I first established that the El Diablo group was a Civic-Ceremonial compound, which was started during the beginning of the Early Classic (250 to 450 AD). The founders of this new group were apparently part of the elite of El Palmar, or from other Preclassic sites located within the Valle de Buena Vista. We proposed this because of the magnitude of the buildings. It is evident that the first inhabitants had an established dynasty with an old tradition and power. The structures that formed the groups El Diablo and El Tejon needed hundreds of people to modify the tops of the hills and create the Civic-Ceremonial area and its housing groups.

Why the ancient inhabitants of El Zotz chose to build El Diablo and El Tejon is still unknown. What we can say is that El Zotz, like other centers within the central region of El Petén, Guatemala, relocated the major ceremonial groups, such as palaces complexes and ceremonial structures, to a defensible location. This move ensured that elites were protected from both local and foreign enemies. In the case of El Zotz, the leaders chose the hills of El Diablo and El Tejon to build their ceremonial center and residential area, although they have located evidence of Early Classic occupation in the epicenter of El Zotz, mostly under the Acropolis, but because of that they are very deep

in the core of the construction. Some evidence has been found for the Early Classic occupation of El Zotz, but it is difficult to establish the function of the buildings and confirm whether these early structures were also a palace complex. However it is possible that this architecture functioned as a residence for the ruling family, since we know at other sites, and within El Zotz, that the ancient Maya usually maintained the function of the structures through time. With the data collected by the project it is difficult to establish how big this occupation was, and its relationship with El Diablo, but we can argue that the groups had to be in constant communication due to proximity.

El Diablo began with small structures at the beginning of the Early Classic period. These were built with limestone and covered with finely carved stucco and painted in red (Roman and Carter 2009; Roman and Newman 2010, Beltran y Román 2011). These first structures were built during the regime of the first ruler of El Zotz, who after his death was buried in the Colorada Structure (Sub-3) at the southeast corner of the Main Plaza of El Diablo. The tomb of this ruler shows the wealth and power that he had, having foreign artifacts such as Spondylus shells, hematite cubes, jade, beautiful ceramic vessels and sacrificed children.

The first ruler must have been very important to the dynasty of El Zotz, because after his death his survivors began a cult in which this first ruler became an ancestor. This cult began with the construction of the Solar Structure, which was richly decorated in high relief masks made with stucco. These masks were representations of the Sun God in different stages, and these were associated with the god of rain and the Jaguar God of the underworld, who was allegedly the chief deity of the nobility of El Diablo and El Zotz.

The greatest buildings on the main square of El Diablo were built after the death of the first ruler, and each renewal structure was more monumental. The Main Plaza is associated with the elite and royal courts, because to the north lies a Palace that has an administrative role. It was also established that other structures also served an administrative function based on architecture and archaeological materials recovered. Also, the Main Plaza had a ceremonial building like F8-1, which has a funerary structure. The last stage of construction of El Diablo is the largest monumental construction, and therefore shows that the group was the highest point of complexity and economic power, which had enough natural and human resources to build and maintain an independent city.

After two hundred years of success the civic and ceremonial compound of El Diablo was abandoned. In my research I proved that abandonment occurred approximately at the end of the Early Classic Period (400 to 450 AD). With the utilization of the study of the process of abandonment I proved that the abandonment was planned and slow (Temporal Scale), because all the belongings of the former inhabitants of El Diablo were taken with them. The process which followed the abandonment was that the people dismantled the structures in three different ways. The first was to remove the roofs of buildings and the stucco that covered the walls. The second type of process of destruction of buildings was the removal of all the temples leaving only left traces of their location. The third way of dismantling was to destroy the temples, but the art used for decoration of the structures was placed carefully in the sustaining platform.

After the dismantling of the structures the inhabitants proceeded to perform ceremonies in which they deposited ceramic materials and ashes in the structures. These deposits are known archaeologically as termination deposits and are encountered throughout the Maya area. It is the end of the life cycle of a structure. In the case of the El Diablo group, these were found on the steps of structure F8-1 and within the Palace. The last step in the process of abandoning El Diablo was to cover the Main Plaza and the structures with a layer of material made by pulverized limestone mixed with soil and limestone blocks of various sizes and shapes (the grey material). The abandonment also occurred in residential areas located north of the Palace and the Tejon Group at the same time, because the pottery and obsidian found in the material used to fill El Diablo and El Tejon were from the same period. We established that the inhabitants of El Diablo started to leave the area between 400 and 450 AD.

The causes of abandonment of these groups is not entirely clear, as I mentioned in Chapter IV, but the data recovered indicates that the abandonment of El Diablo was not caused by war, climate change or an uprising of commoners. Rather, abandonment was a decision made by the elite of El Zotz. This decision to abandon El Diablo leads us to two possibilities The first is that the inhabitants of El Diablo were the founders of a new center, Yaxchilan, in the Usumacinta river area. We propose this hypothesis because both centers use the same emblem glyph. The second, and more feasible, possibility is that the elites of El Zotz wanted to build a larger and more monumental center, but due to the difficult mountainous topography these plans were difficult to achieve. Therefore, they had to move the city toward the valley where the landscape is flatter and they were closer

to their subordinates. This two possibilities are not necessarily mutually exclusive, and the elite could extender the family to Yaxchilan and the other part could stay at El Zotz, but this kind of hypothesis could be only answer whit more excavations at El Zotz of Yaxchilan.

Figures

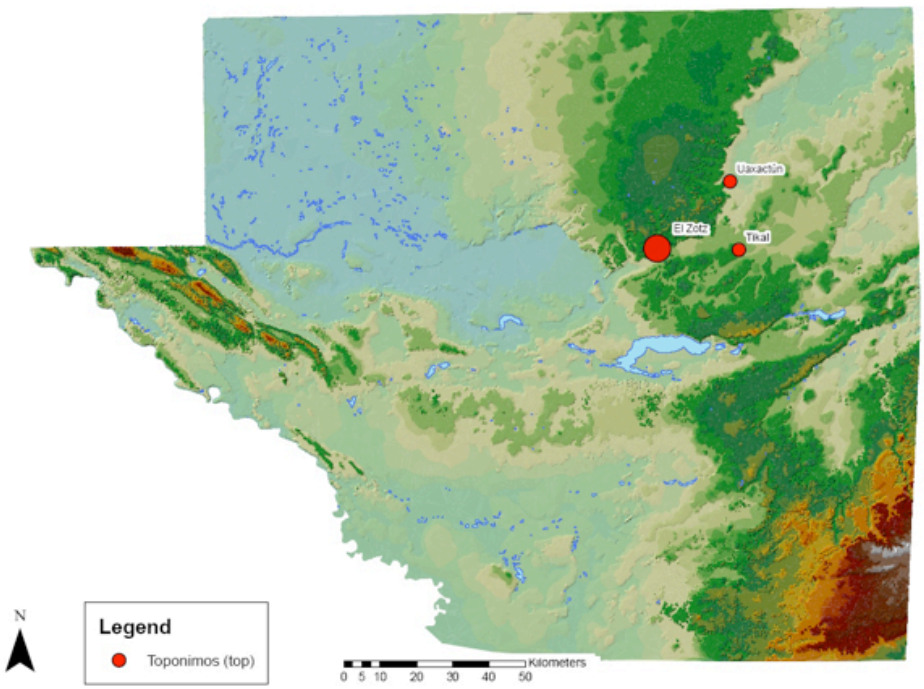

Figure 1: Map of El Petén Guatemala, showing location of El Zotz (Drawing by El Zotz Archaeological Project)

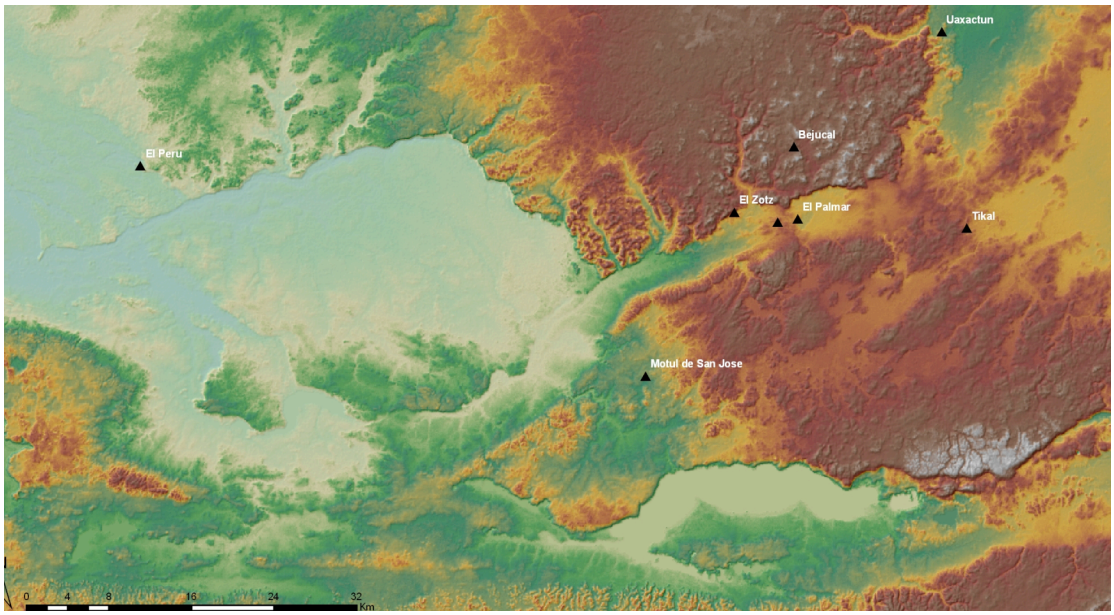

Figure 2: Map showing El Zotz and its neighbors (Drawing by El Zotz Archaeological Project)

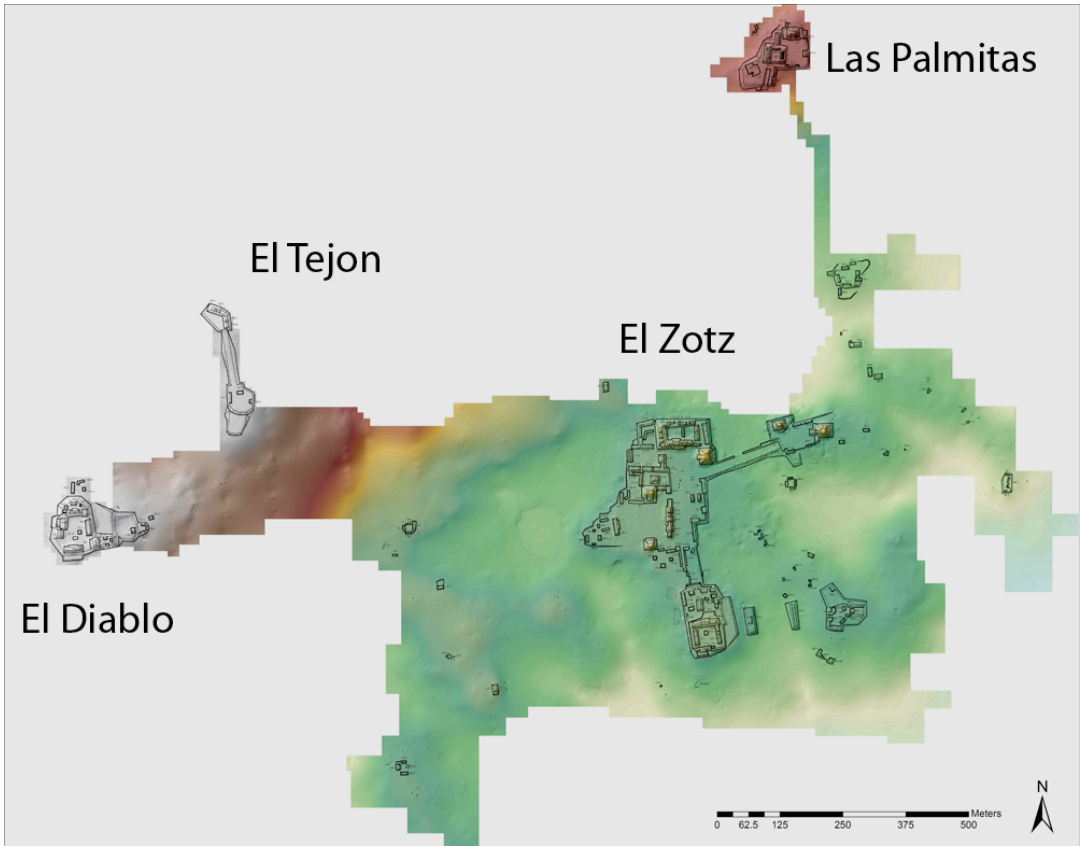

Figure 3: Map of El Zotz (Drawing by Thomas Garrison)

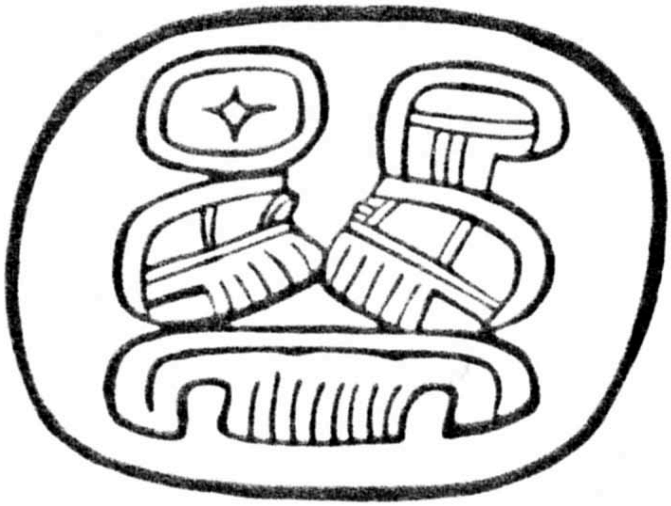

Figure 4: The Emblem glyph of El Zotz, Pah'an (Drawing by El Zotz Archaeological Project)

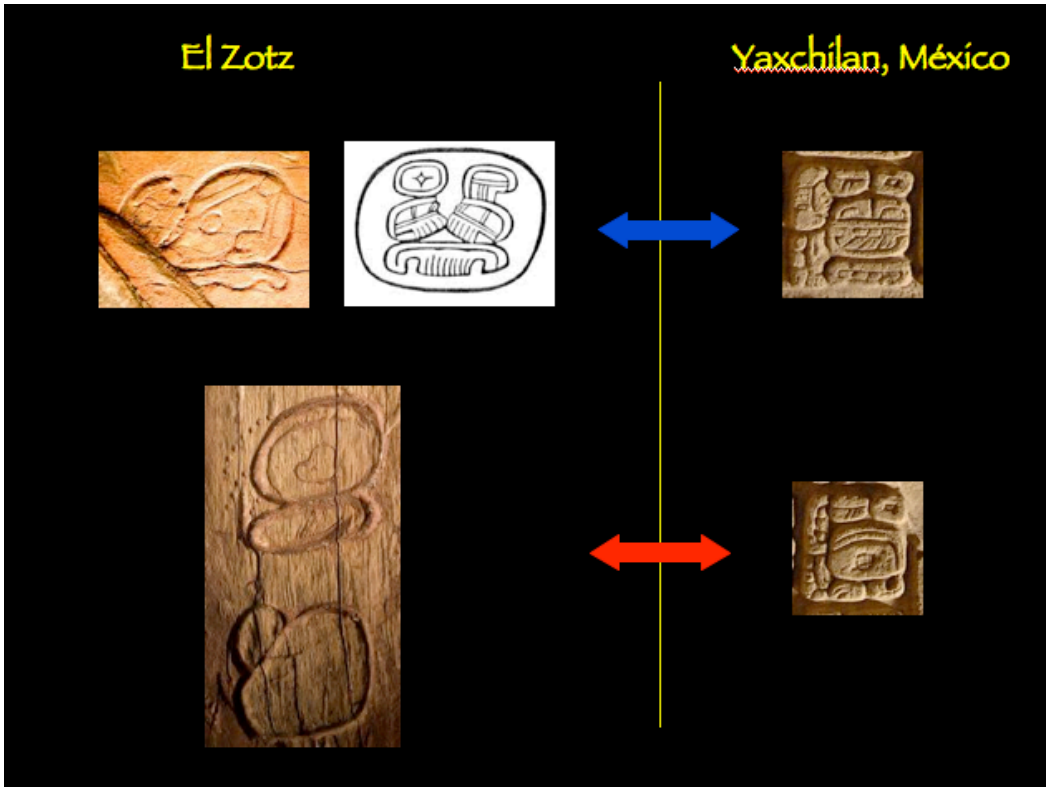

Figure 5: Emblem glyphs of El Zotz and Yaxchilan (Illustration by El Zotz Archaeological Project)

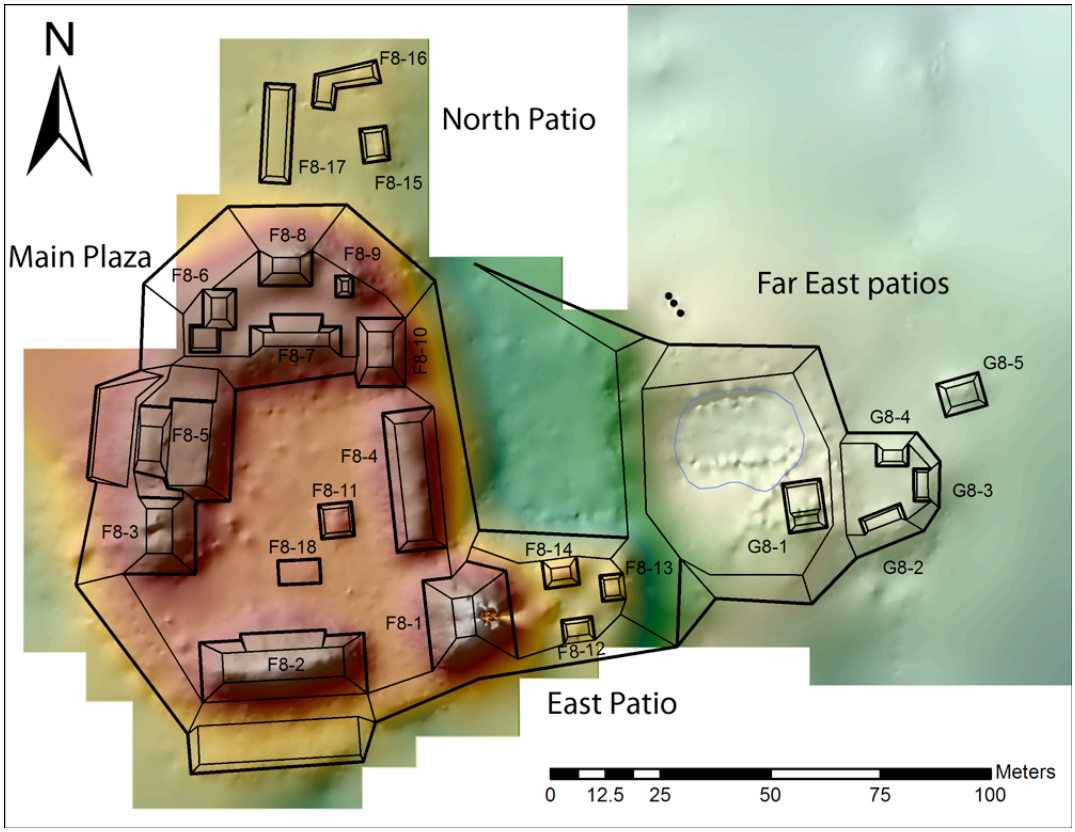

Figure 6: Map of El Diablo (Drawing by Thomas Garrison)

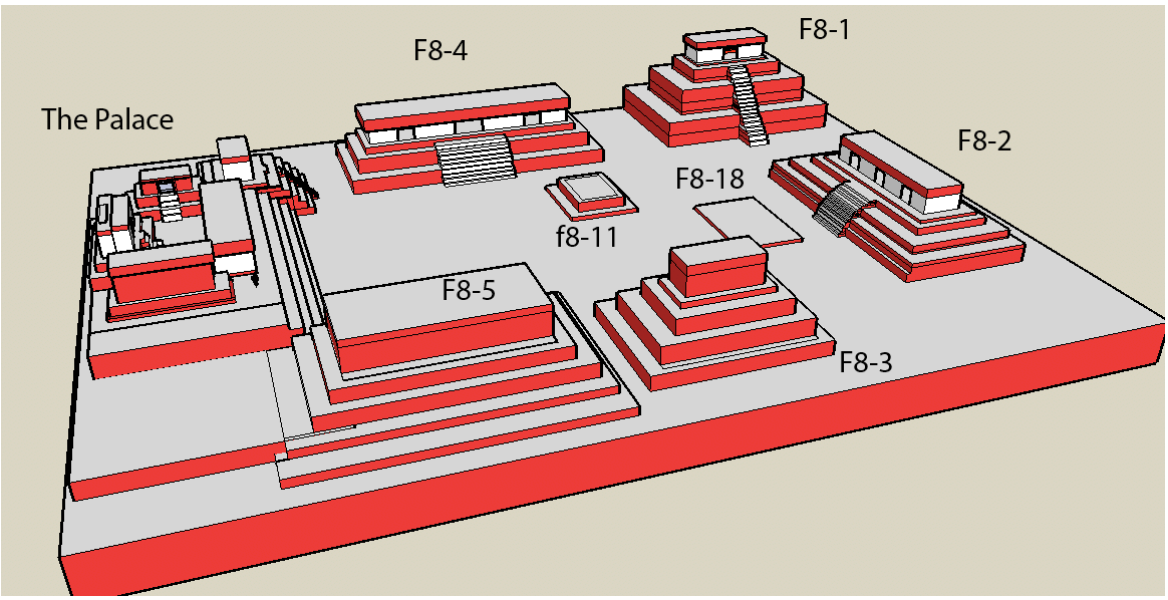

Figure 7: Reconstruction of the Main Plaza at El Diablo (Illustration by Edwin Román)

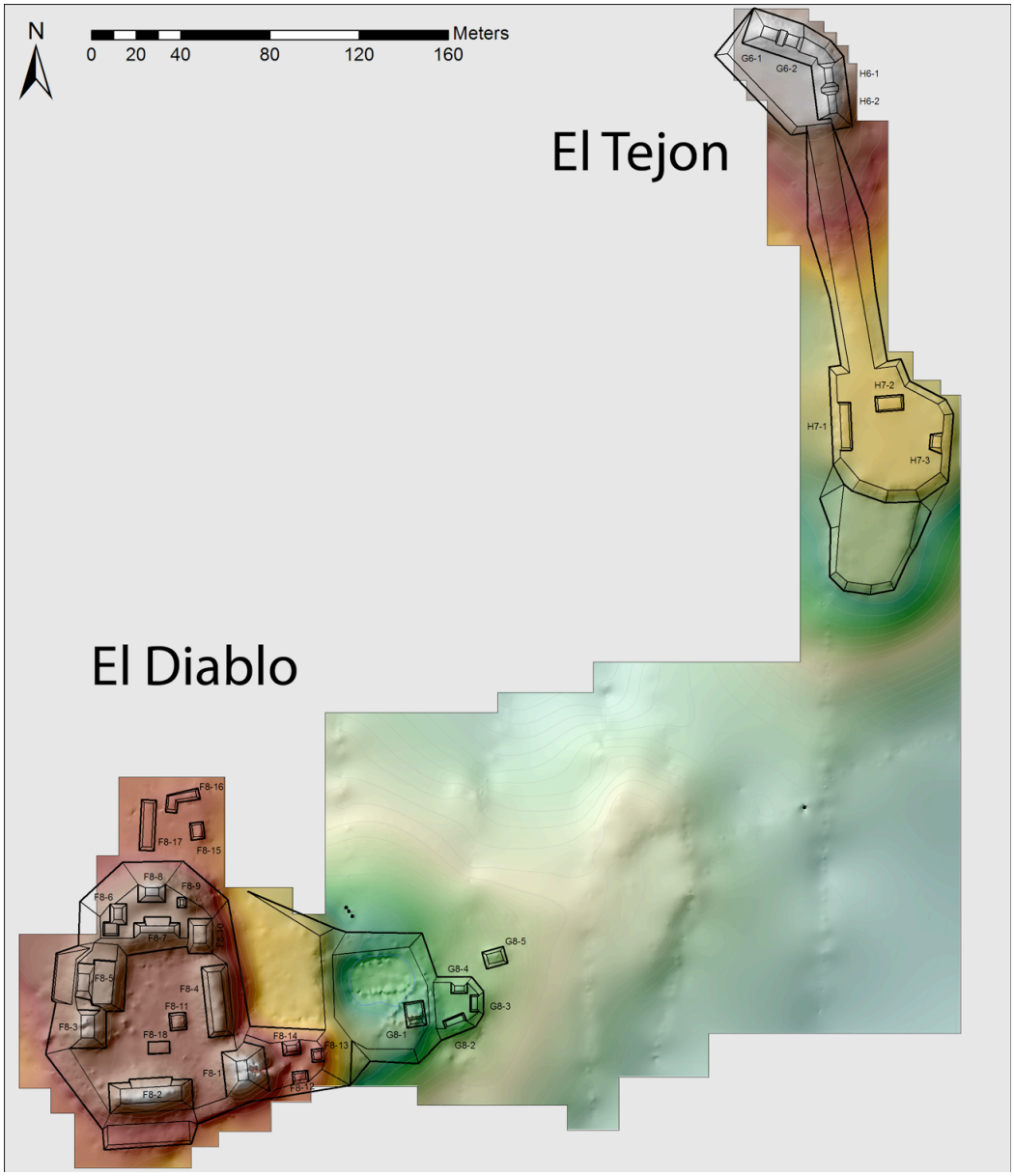

Figure 8: Map of El Diablo and El Tejon (Drawing by Thomas Garrison)

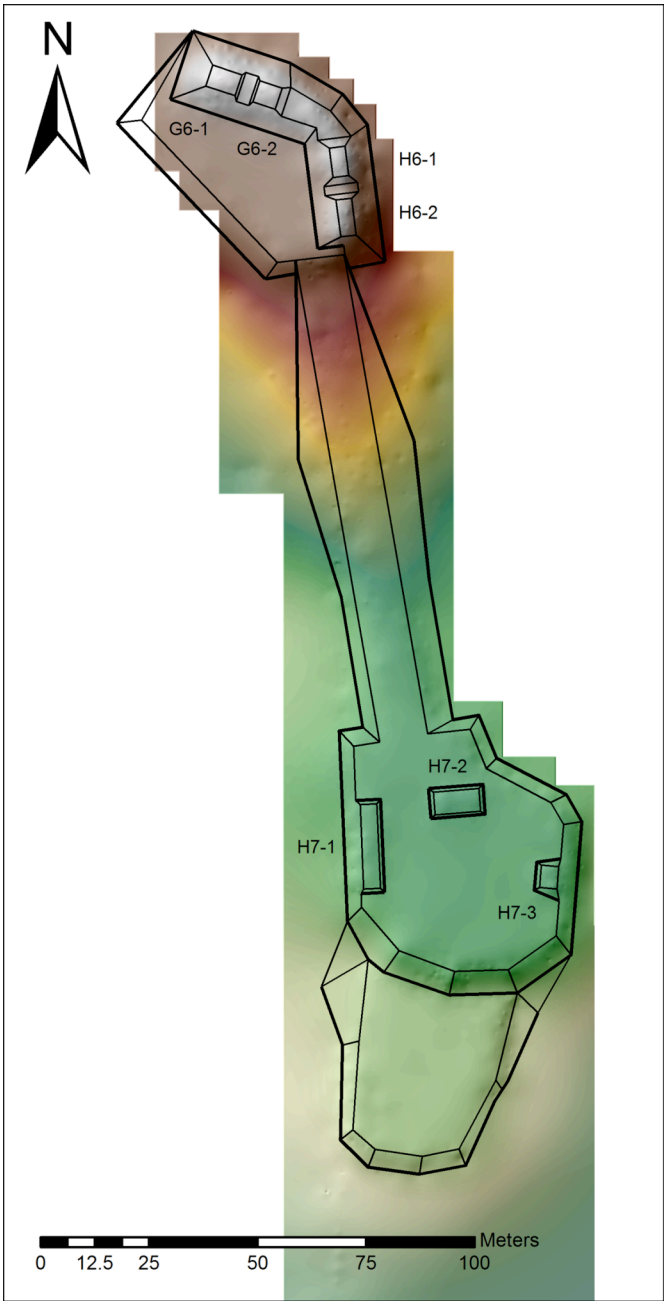

Figure 9: Map of El Tejon (Drawing by Thomas Garrison)

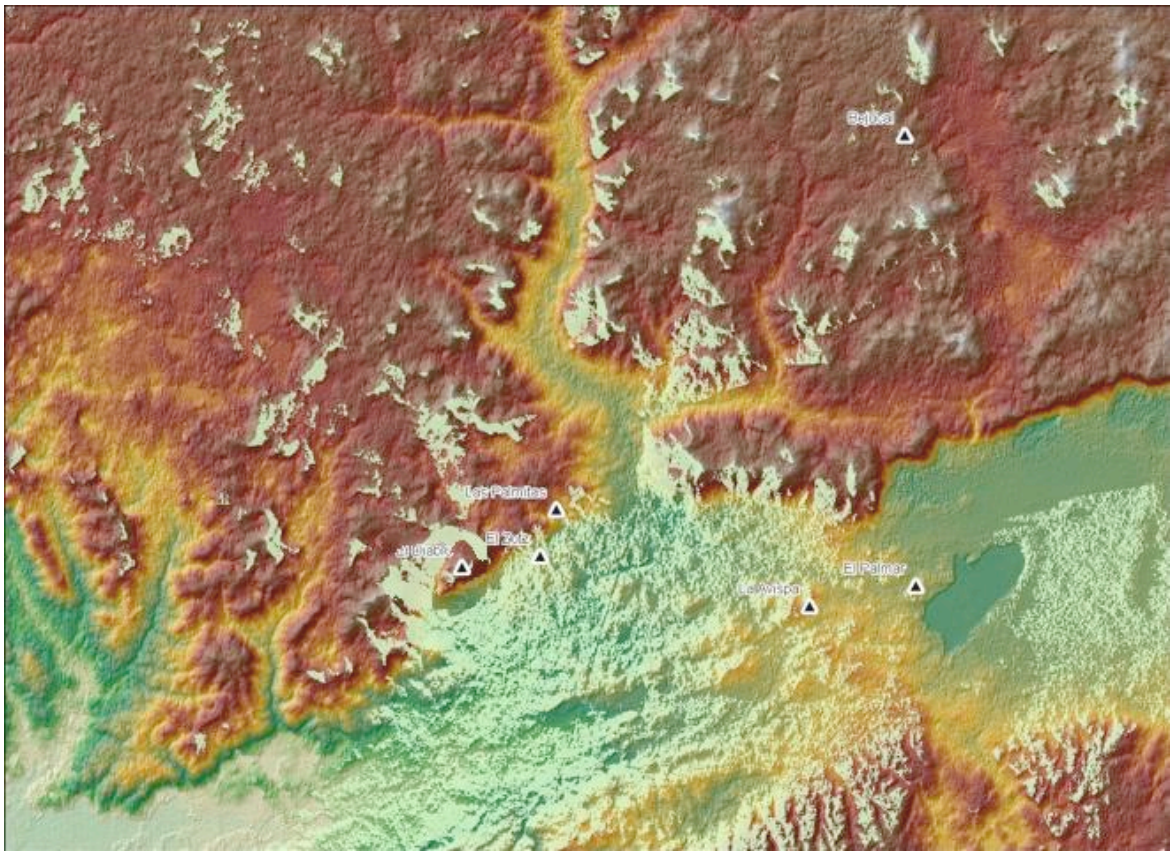

Figure 10: The color white shows the areas visible from El Diablo (Drawing by Thomas Garrison)

Figure 11: Map of El Palmar (Created and Drawn by James Doyle)

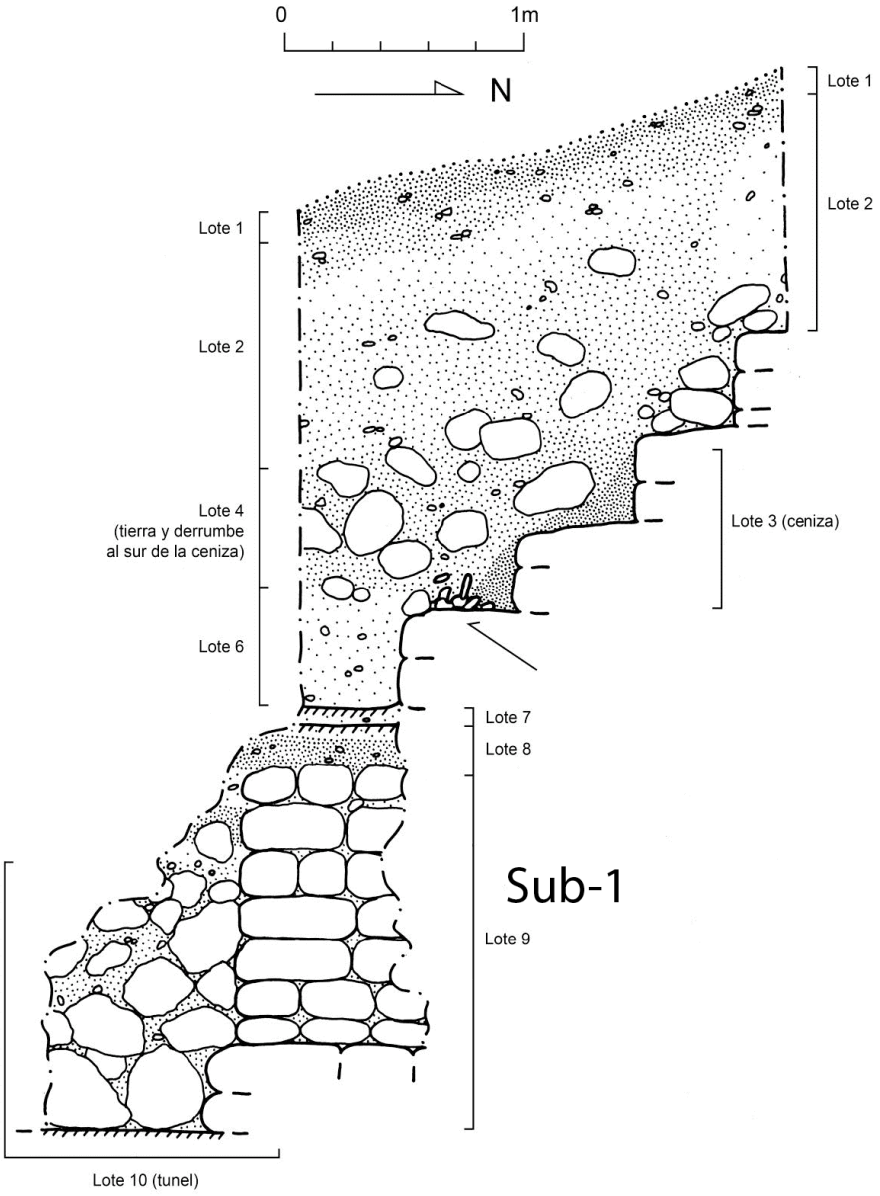

Figure 12: Profile of the excavation in structure F8-8 showing the first sub-structure at the Palace of El Diablo (Drawing by Nicholas Carter)

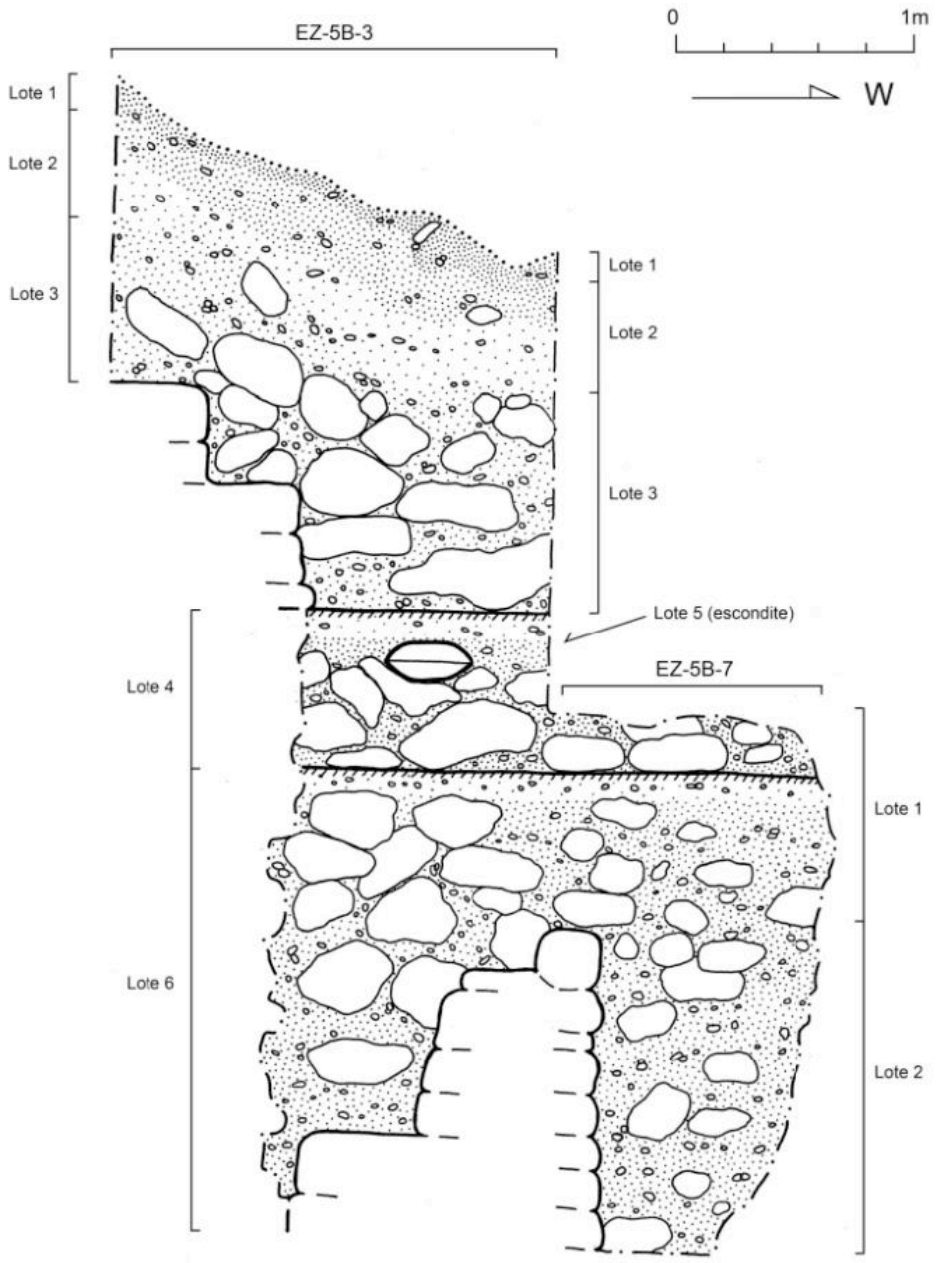

Figure 14: Drawing showing the sub-structure found in front of structure F8-1 (Drawing by Nicholas Carter)

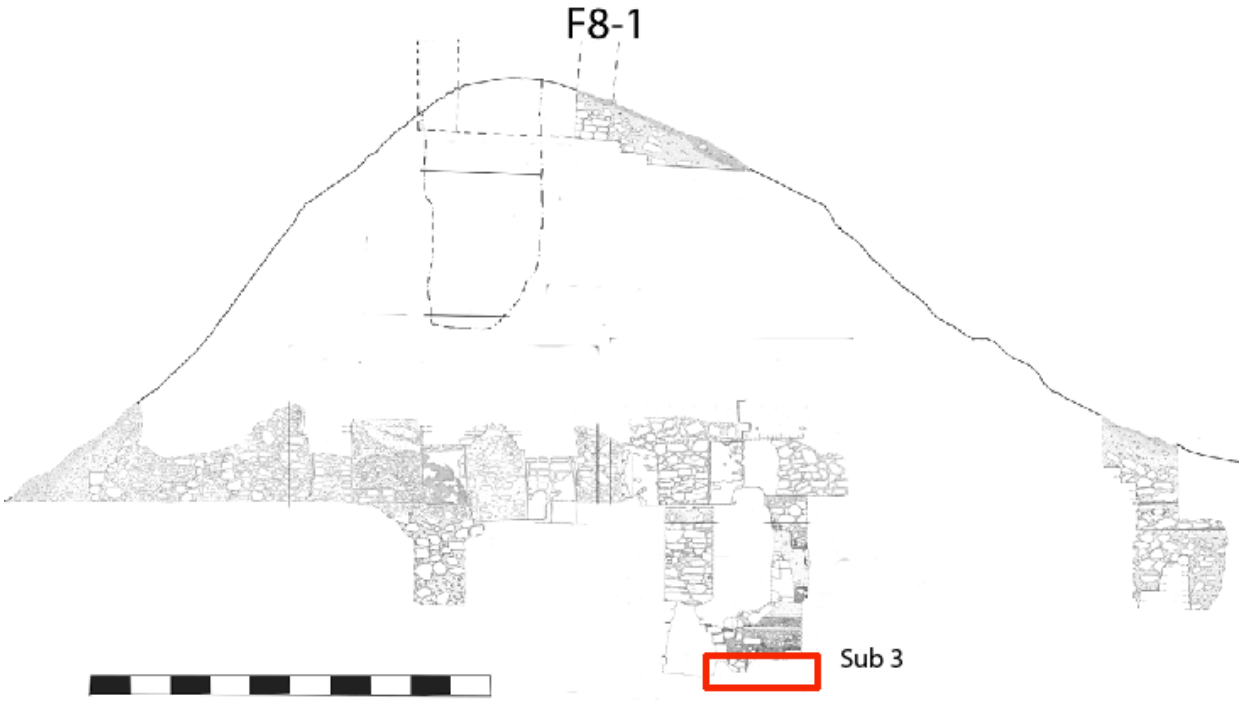

Figure 14: Profile of structure F8-1 showing the location of F8-sub 3 (Drawing by El Zotz Archaeological Project)

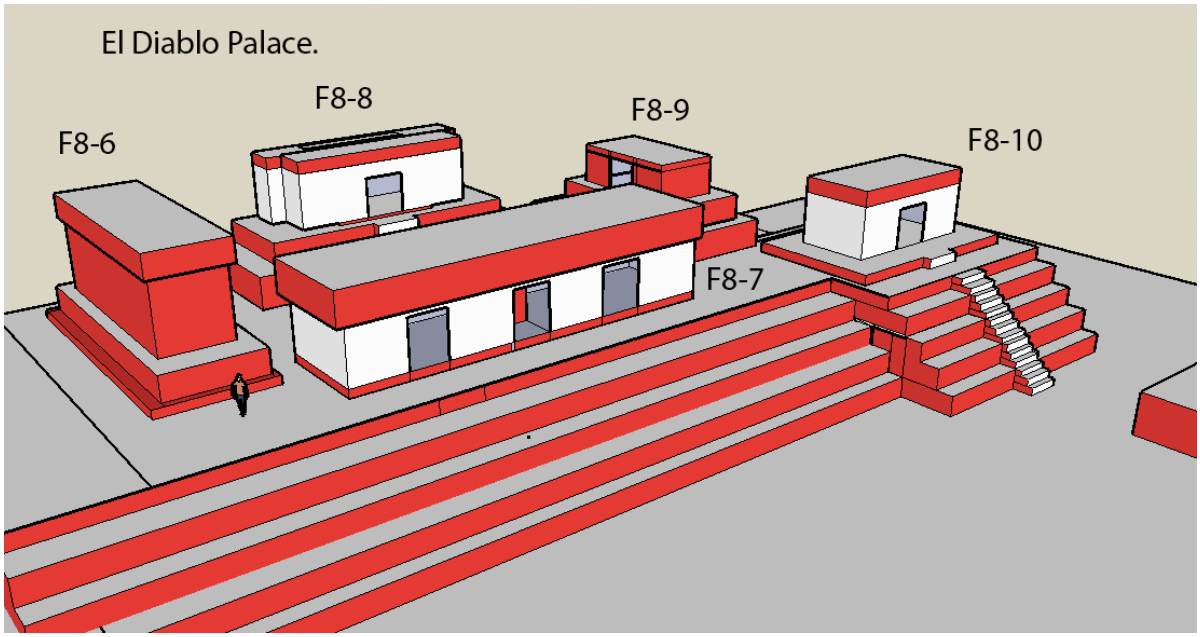

Figure 15: Reconstruction of the El Diablo Palace (Drawing by Edwin Román)

Figure 16a: Picture of the South looter trench in structure F8-1 in 1978. (Picture by George Andrews, Alexander Architectural Archive, University of Texas at Austin)

Picture 16b: Picture of the South looter trench in structure F8-1 in 2010
(Picture by Arturo Godoy, Copyright El Zotz Archaeological Project)

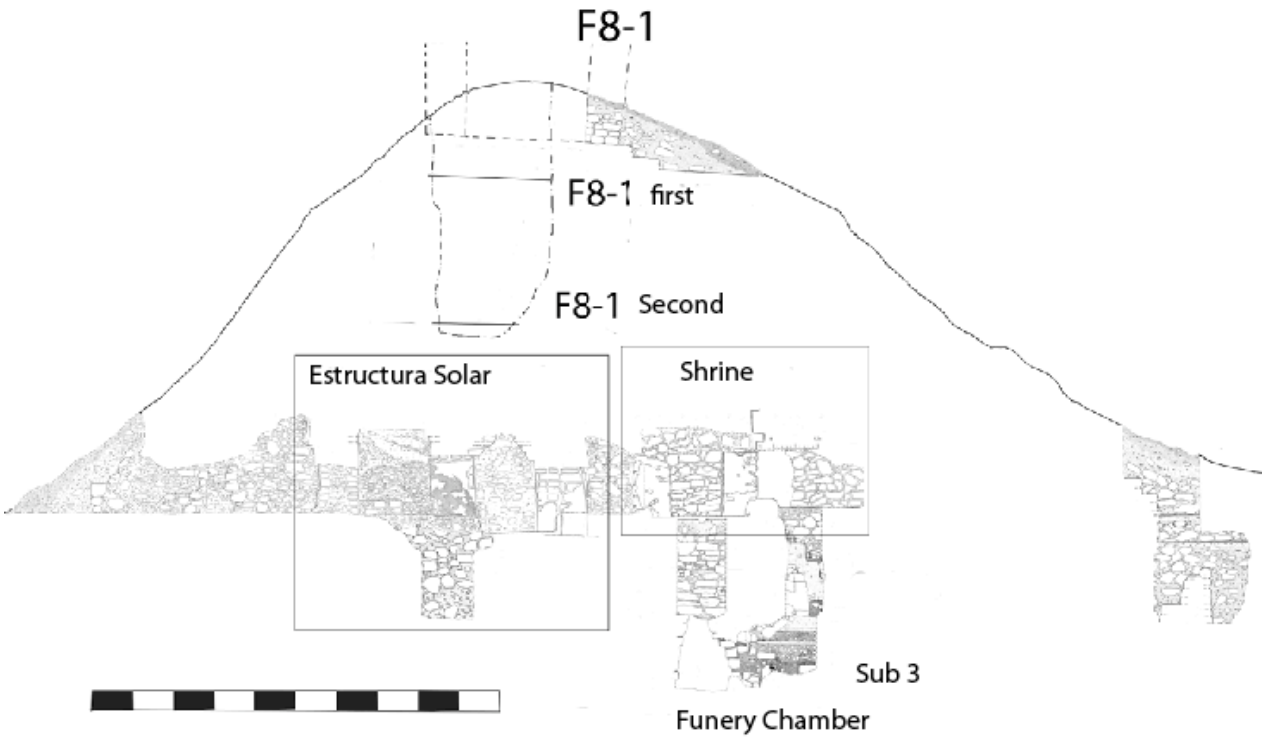

Figure 17: Profile of structure F8-1, showing the location of the Solar Structure and the Shrine. (Drawing by El Zotz Archaeological Project)

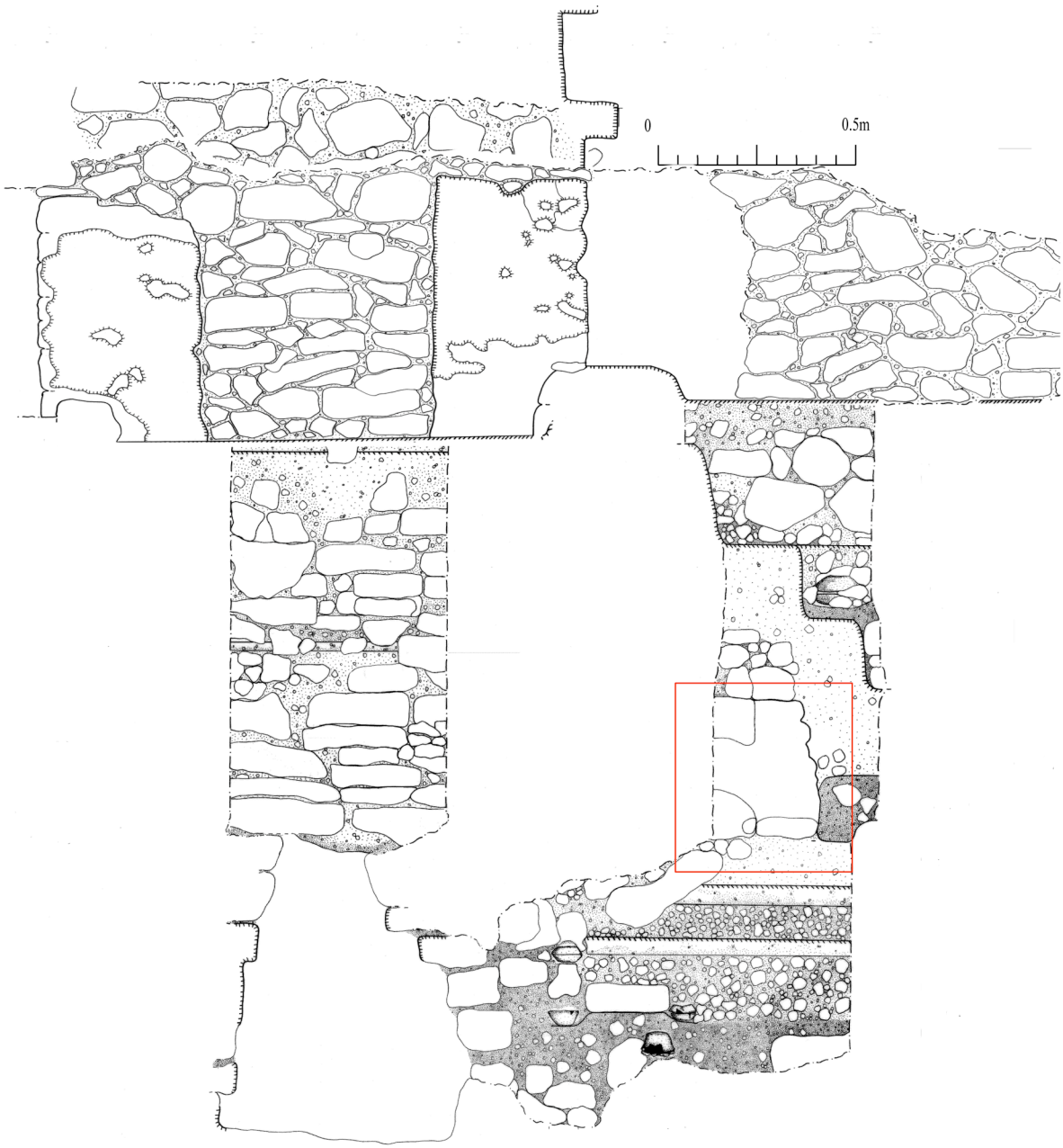

Figure 18: Profiles of the excavation where the cylindrical altar was found. (Drawing by S. Houston, S. Newman, T. Garrison and B. Beltran)

Figure 19: Picture of the cylindrical altar that represents a God or Witz . (Picture by Alexa Rubinstein, Copyright El Zotz Archaeological Project)

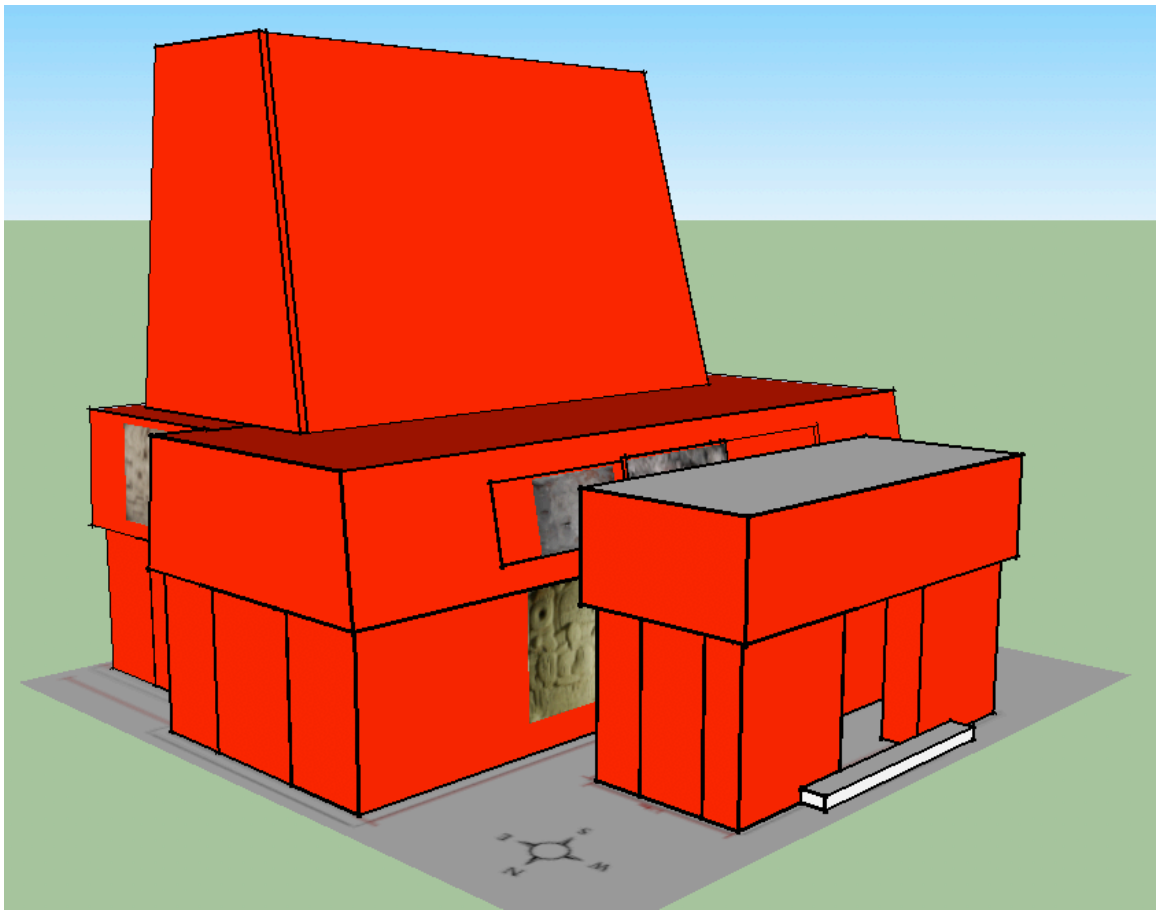

Figure 20: Reconstruction of the Solar Structure and the Shrine (Drawing by Edwin Román)

Figure 21: Picture of the Jaguar God of the Underworld in the east facade of the Solar Structure. (Picture by Edwin Román, Copyright El Zotz Archaeological Project)

Figure 22: Picture of the mask of unknown deity on the west side of the frieze. (Picture by: James Doyle, Copyright El Zotz Archaeological Project)

Figure 23: Mask found in the lower wall of the west facade of the Solar Structure. (Picture by: Arturo Godoy, Copyright El Zotz Archaeological Project)

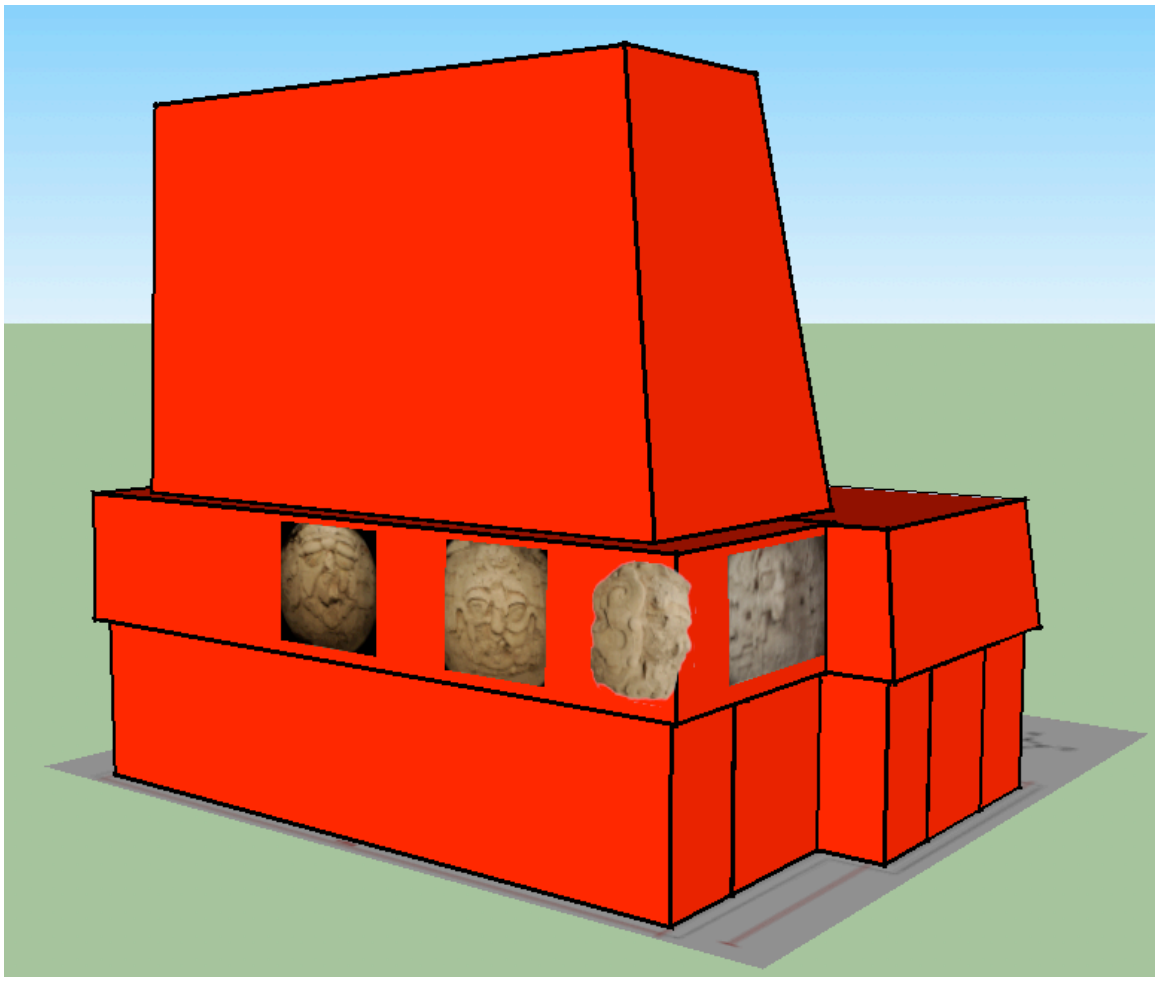

Figure 24: Reconstruction of the Solar Structure, west façade (Drawing by Edwin Román)

Figure 25: Picture of a mask of a Sun God found in the west frieze of the Solar Structure. (Picture by Arturo Godoy, Copyright El Zotz Archaeological Project)

Figure 26: Picture of a mask of the Solar God with a folder band found in the east frieze of the Solar Structure. (Picture by: Stephen Houston, Copyright El Zotz Archaeological Project)

Figure 27: Picture of a mask of a Solar God, found on the northeast corner of the frieze of the Solar Structure (Picture by Arturo Godoy, Copyright El Zotz Archaeological Project).

Figure 28: Picture of a mask of the Rain God found in the north frieze of the Solar Structure (Picture by Alexa Rubinstein, Copyright El Zotz Archaeological Project)

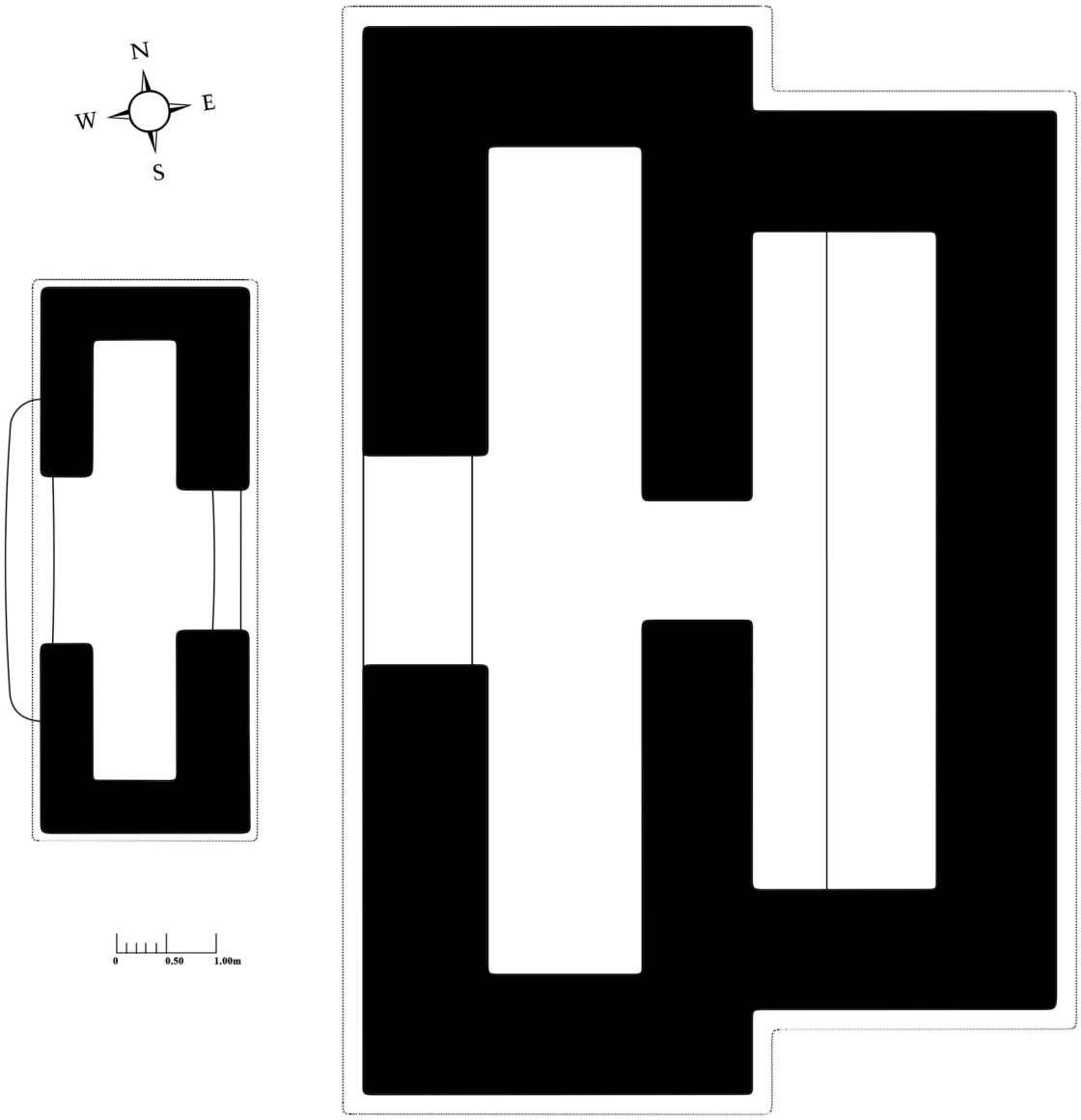

Figure 29: Plan of the Solar Structure and the Shrine (Drawing by Boris Beltran)

Figure 30: Picture of the temple in structure F8-1 (Picture by Arturo Godoy, Copyright El Zotz Archaeological Project)

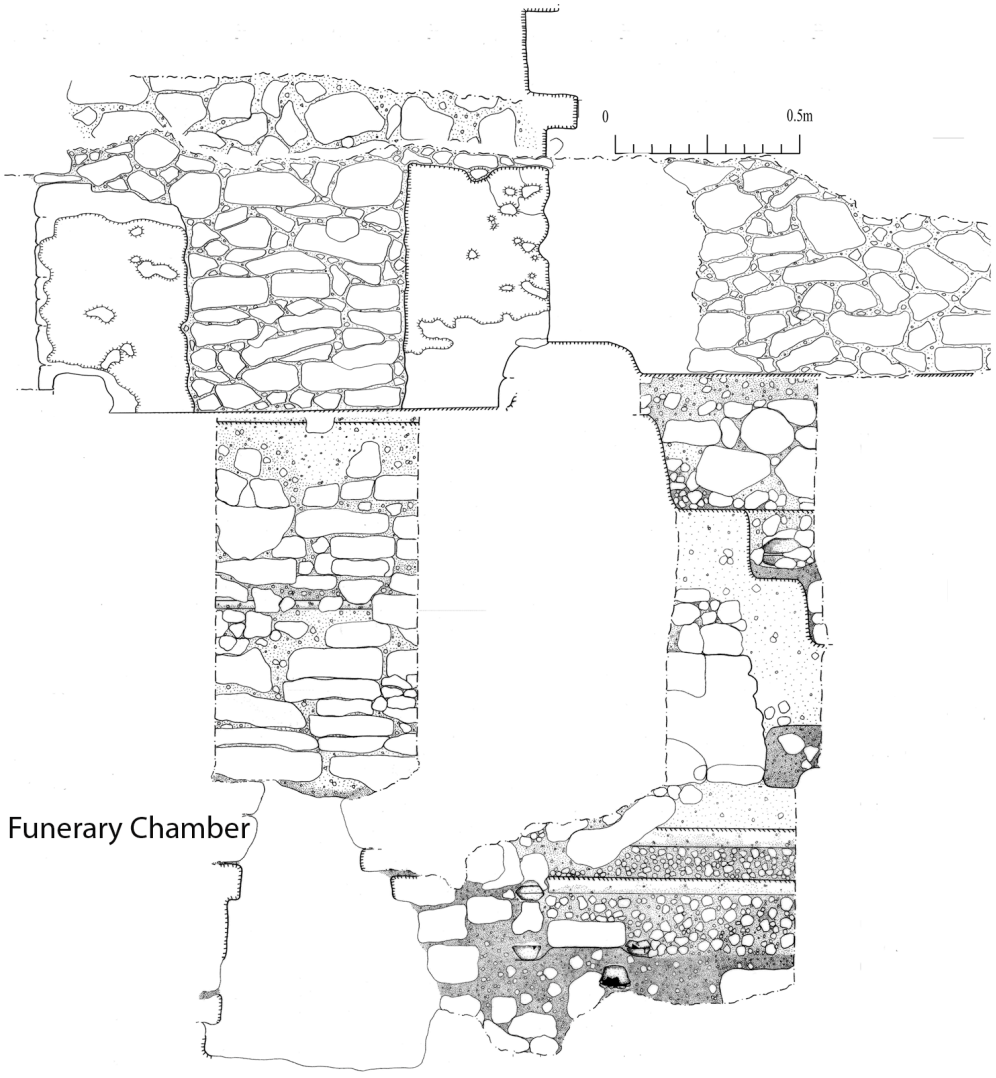

Figure 31: Profile of the excavations in the interior of F8-1, showing the funerary chamber (Drawing by S. Newman, S. Houston, T. Garrison, B. Beltran and A. Coronado)

Figure 32: Picture showing the finger bowls found in the floor of the Shrine. (Pictures by Arturo Godoy, Copyright El Zotz Archaeological Project)

Figure 33: Picture of the altar and cashes found in front of the funeral chamber. (Picture by Arturo Godoy, Copyright El Zotz Archaeological Project)

Figure 34: Picture of Burial 9 (Picture by Arturo Godoy, Copyright El Zotz Archaeological Project)

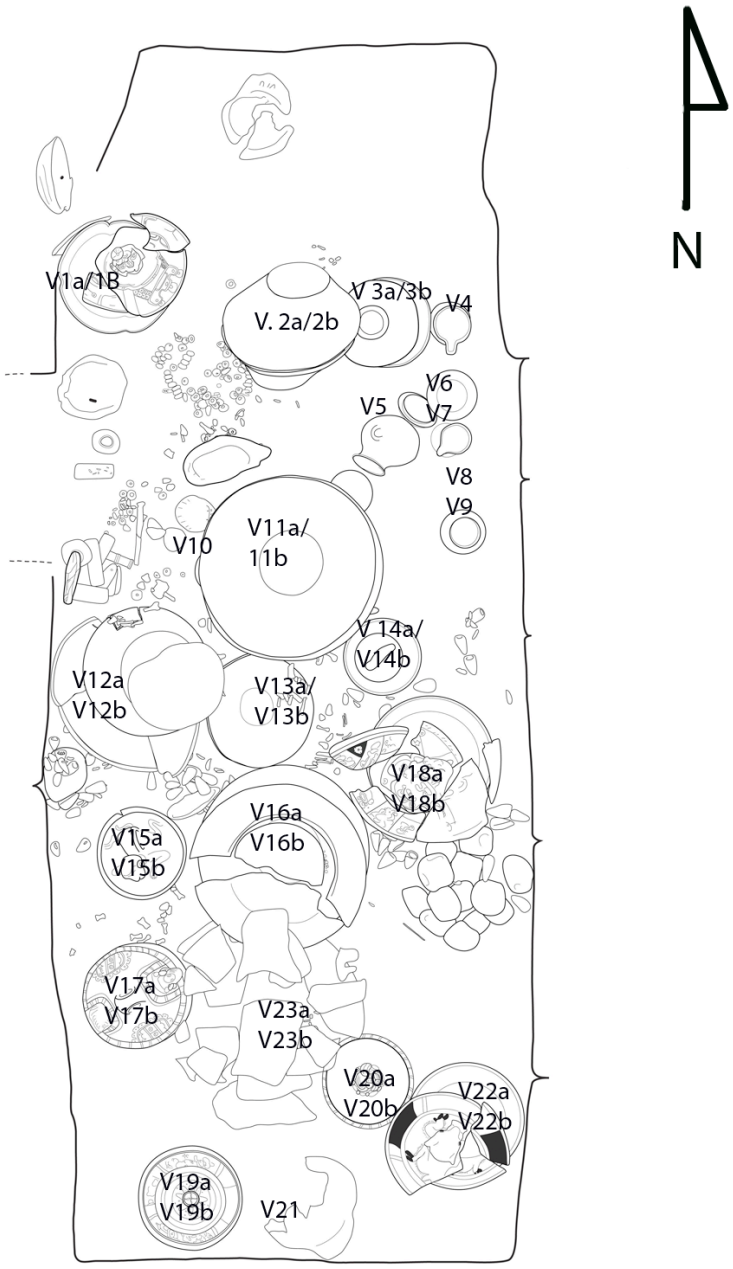

Figure 35: Drawing of Burial 9 (Drawing by Stephen Houston)

Figure 36: Pictures of the shells from the belt found in Burial 9. (Picture by Aarturo Godoy Copyright El Zotz Archaeological Project)

Figure 37: Picture of the jade Mask from Burial 9 (Picture El Zotz Archaeological Project)

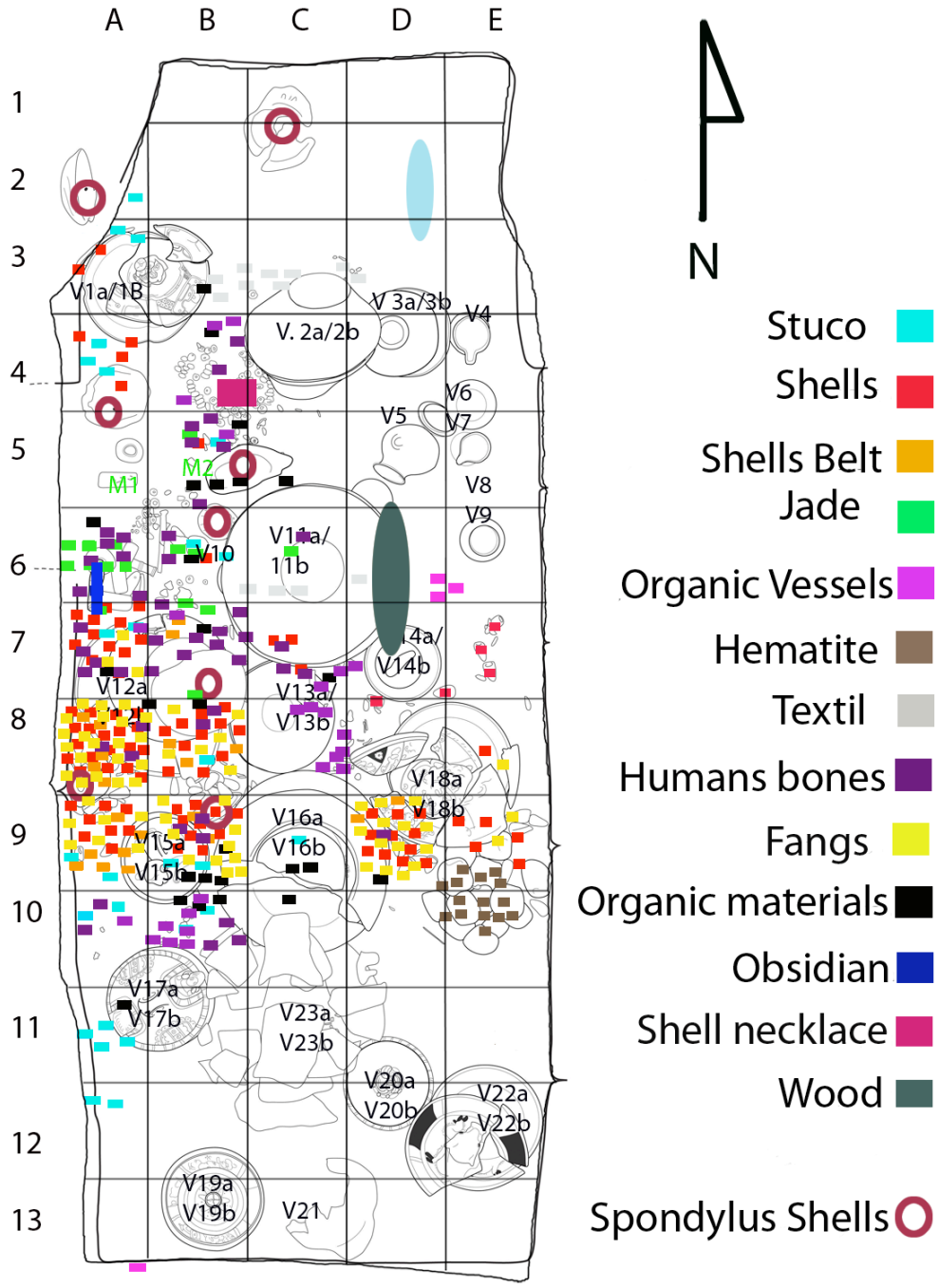

Figure 38: Drawing of Burial 9 showing the different materials found in the tomb (Drawing by Edwin Román and Stephen Houston)

Figure 39: Picture of a lid of vessel 15 which represents a monkey (Picture by Arturo Godoy, Copyright El Zotz Archaeological Project)

Figure 40: Drawing of a lid of vessel 17, which represents a mystical turtle (Drawing by Kalista Angeloff)

Figure 41: Picture of vessel 1. Which represents a mythical monkey (Picture by James Doyle, Copyright El Zotz Archaeological Project)

Figure 42: Picture of a lid of vessel 18 from Burial 9 (Picture by Arturo Godoy, Copyright El Zotz Archaeological Project)

Figure 43: Picture of a lid of a wooden vessel (Picture by Arturo Godoy, Copyright El Zotz Archaeological Project)

Figure 44: Picture of textiles from in Burial 9 (Picture of Arturo Godoy, Copyright El Zotz Archaeological Project)

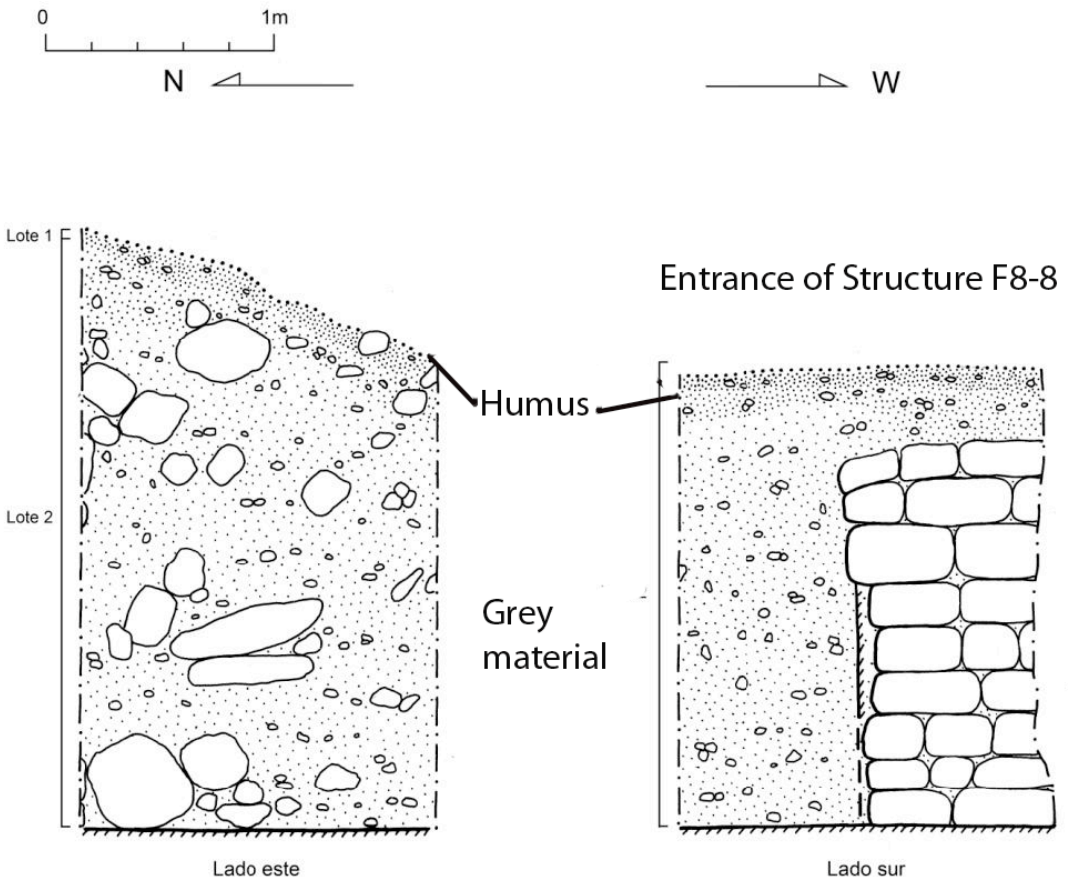

Figure 45: Profile of the excavation in Structure F8-8 showing the process of refilling of the temple (Drawing by Nicholas Carter)

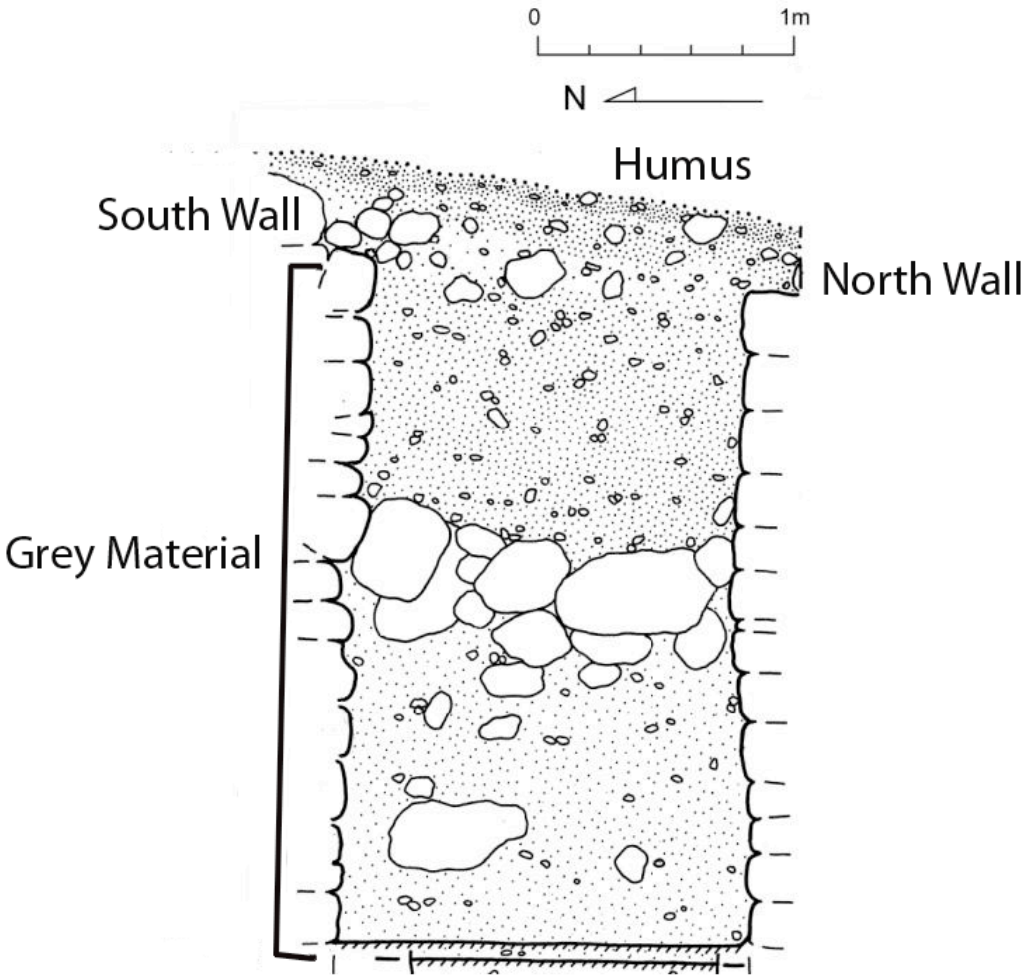

Figure 46: Excavation in the second chamber in structure F8-8 that shows how the walls of the structures were preserved and how grey material was used to cover the structure (Drawing by Nicholas Carter)

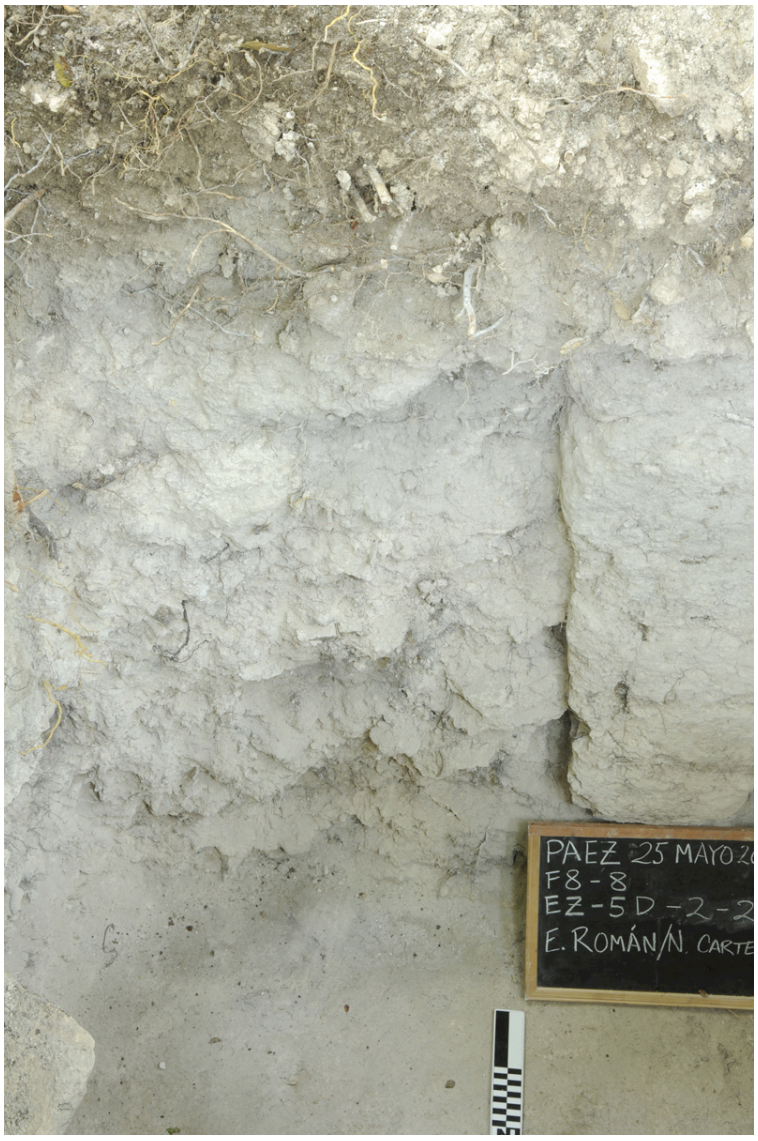

Figure 47: Picture of the entrance of structure F8-8 (Picture by Arturo Godoy, Copyright El Zotz Archaeological Project)

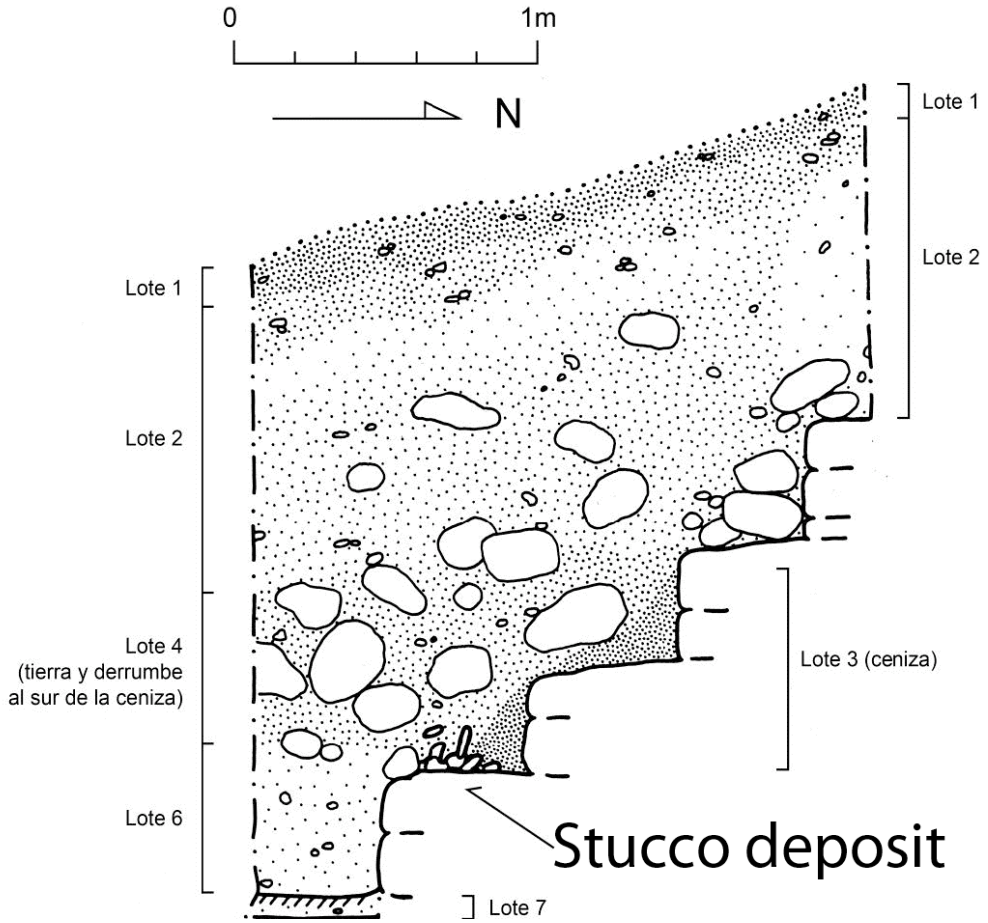

Figure 48: Drawing of the stucco deposits found in Structure F8-8 (Drawing by Nicholas Carter)

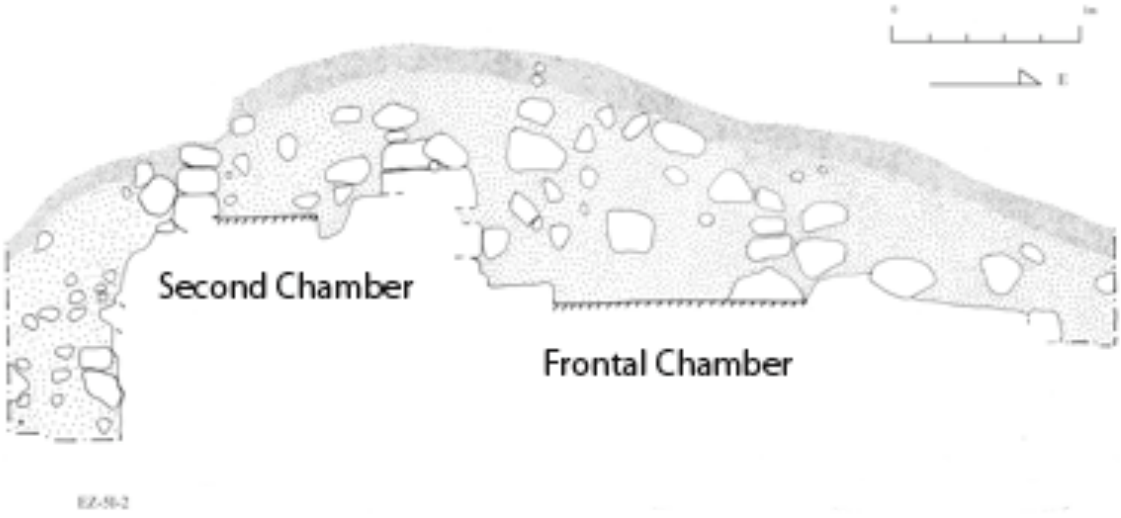

Figure 49: Drawing of excavations in Structure F8-2 that show the destruction of the temple (Drawing by Sarah Newman)

Figure 50: Picture of the stucco from the last construction phase found in F8-1 (Picture by Arturo Godoy. Copyright El Zotz Archaeological Project)

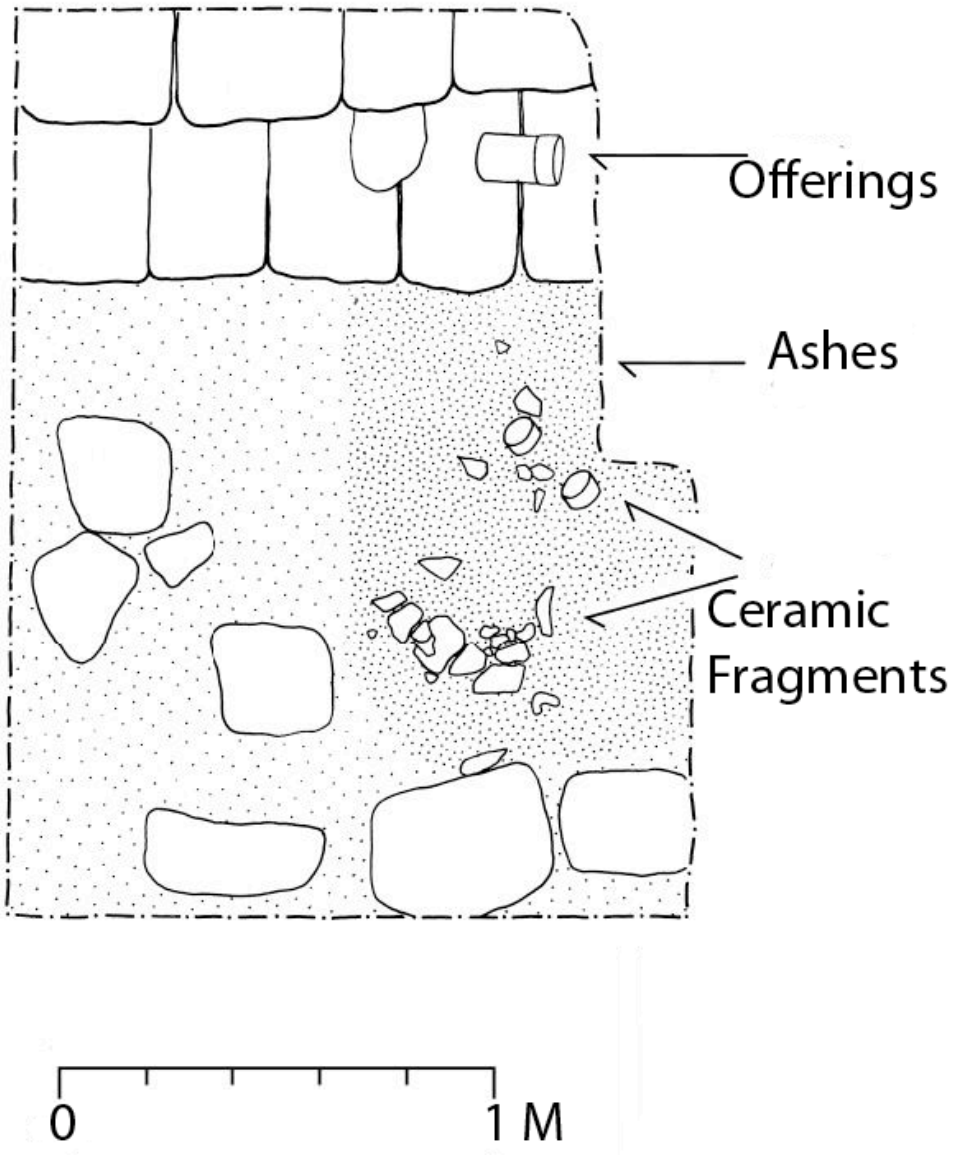

Figure 51: Drawing of the ceramic deposit found in structure F8-1 (Drawing by Nicholas Carter)

Figure 52: Cylindrical vessels found in the terminal deposit in Structure F8-1 (Picture by Arturo Godoy. Copyright El Zotz Archaeological Project)

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