

**REVERING THE PAST: THE ANALYSIS OF TERMINUS GROUPS IN THE MAYA
LOWLANDS**

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ABSTRACT:

The functions of terminus groups and their relations with site cores are a topic of continuous debate among Mesoamerican archaeologists. Terminus groups contain monumental structures that are constructed atop platforms that are connected to the site core of large polities via sacbes, “white road” in Maya, or causeways. Hypotheses concerning terminus groups suggested they served as ritual centers, elite residences, and marketplaces. The focus of my research is to analyze the function of a large terminus group, called the Zopilote Group, that is connected to the site core of Cahal Pech in the Cayo District of Western Belize. Excavations at Zopilote have been conducted periodically over the past twenty years, yielding crucial information regarding the function of this group during the Middle Preclassic (900-300 BC) to the Terminal Classic period (AD 600-900). We hypothesized that the Zopilote Group functioned as a ritual pilgrimage center where rituals of ancestor worship were taking place even after the collapse of the Cahal Pech site core in the Terminal Classic period.

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Chapter 1: Introduction

The ancient Maya of Mesoamerica constructed their built environment based on cosmological, political, and economic functionality (Ashmore 1991; Chase et al 2015; Cheetham 2004). Elites organized labor programs to construct monumental architecture in order to convey ideological messages, perform public ceremonies, and execute secular functions, such as mercantile activities. Terminus groups are one type of architectural arrangement that numerous researchers have concluded as serving religious, political, or economic functions, though these categories may not be mutually exclusive (Audet 2006; Chase et al. 2015; Cheetham 2004; Shaw 2008). Terminus groups are defined as architectural groups, usually non-domestic, that are connected to site cores via manufactured causeways, or *sacbeob* in Yucatec Maya (Cheetham 2004; Shaw 2008). The purpose of this thesis is to analyze the function of terminus groups in the Maya Lowlands using the Zopilote Group as a baseline for comparison. Zopilote is a terminus group located approximately .75 kilometers south from the Cahal Pech civic-ceremonial center in the Belize River Valley (Cheetham et al. 1993; Cheetham et al. 1994; Cheetham 2004; Ebert and Fox 2016; Fox and Awe 2017). Our goal is to analyze what function the Zopilote Group served in relation to the Cahal Pech site core and how these findings correlate with other terminus groups on a regional scale.

Description of the Site of Cahal Pech

Cahal Pech is located in the Belize River Valley near the modern town of San Ignacio in Western Belize (Figure 1.1-1.2). Cahal Pech is situated on a hilltop between the Macal and Mopan river, two tributaries that converge to form the Belize River, which is the major waterway linking the Caribbean coast with the interior of the central Maya lowlands (Awe 1992). Awe (1992) further states that Cahal Pech is situated between two environmental zones: alluvial

bottomlands in the northeast and hilly limestone country to the southwest. Alluvial areas contain nutrient rich soil that would have been used for intensive agricultural systems whereas the hilly limestone country would provide sufficient building materials for residential and monumental building projects. Therefore, the environmental resources in the areas surrounding Cahal Pech made the area an ideal location for sedentary life.



Figure 1.1. Map of the Maya Area. Lower left-hand area represents sites in the Belize River Valley. (Courtesy of BVAR).

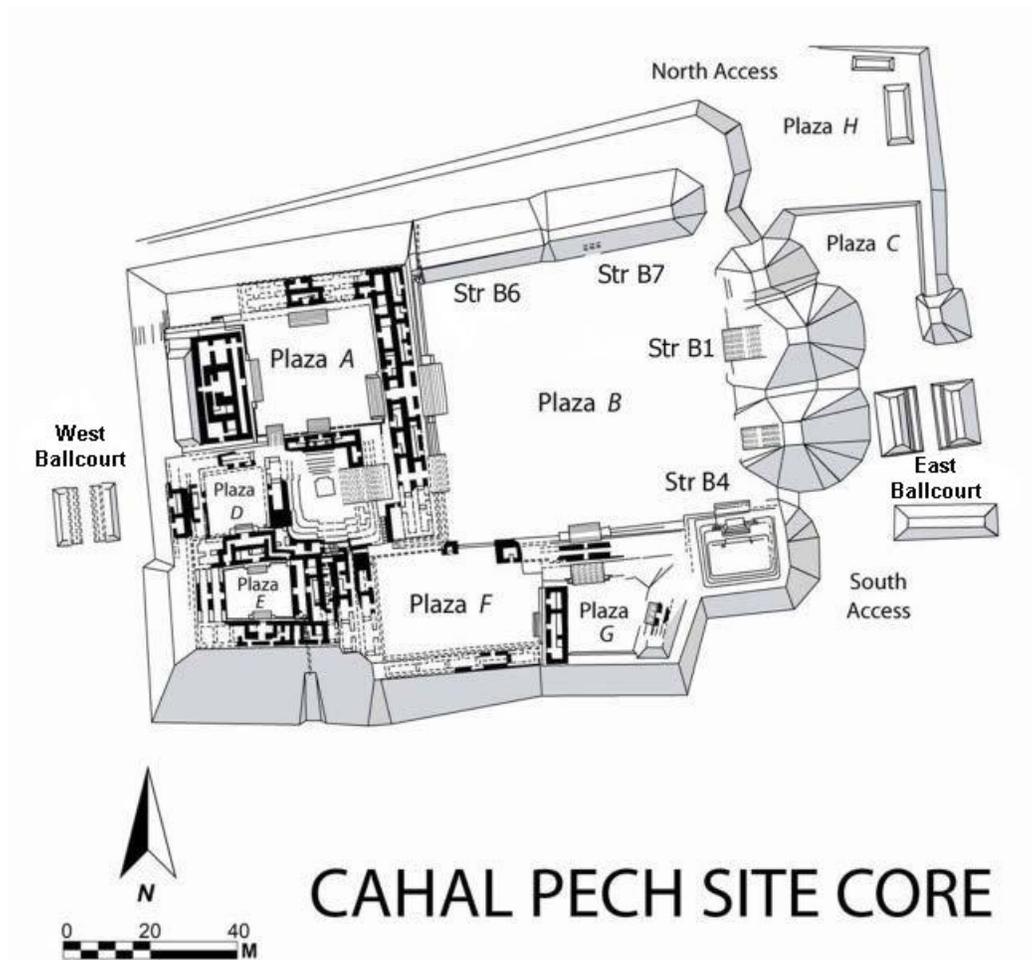


Figure 1.2. Site Plan of Cahal Pech Site Core. (Courtesy of BVAR).

Evidence for the occupational history of Cahal Pech stems back to the Early Preclassic period (1200-900 BC). Excavations in Plaza B and Str. B-4 within the epicenter of Cahal Pech recovered Cunil phase ceramics placing the foundation of the site between 1200-900 B.C. (Awe 1992; Ebert 2017). These early dates are based on AMS dating of charcoal recovered below the earliest platforms at Str. B-4 yielding an approximate date of 1205-990 Cal BC (Awe 1992; Ebert 2017). During the Early Preclassic period, Plaza B and Str. B-4 underwent a series of modifications associated with agrarian residences consisting of a series of superimposed living surfaces composed of earthen floors that likely supported wattle and daub structures (Awe 1992;

Ebert 2017). It is not until 895-820 cal. BC, that Str. B-4 witnessed the construction of a specialized round structure that may have been used for public ceremonies rather than domestic activities (Ebert 2017). This construction phase is likely associated with an increase in social differentiation where elites began to conduct public ceremonies to legitimize their right to rule.

Throughout the Preclassic period, Cahal Pech witnessed a series of construction episodes where building platforms seemed to be the predominant architectural feature except for a round structure associated with the 7th building phase of Str. B-4 (Awe 1992). However, it is during the Late Preclassic period (300 BC – 250 AD) that Cahal Pech witness one of two intensive building periods. Awe (1992) reports that this phase of construction is associated with four architectural types including the building platform, the raised plaza, the round structure, and terraced platforms. As in the earlier phases of construction at Cahal Pech, building platforms likely supported perishable wattle and daub structures. Raised plazas have been found in Plaza A and Plaza B and are likely associated with communal gathering spaces. Round structures have been found at Str. 2 at the Zotz group and Str. B-4\7th and likely served non-domestic functions, such as family shrines. Finally, the last type architectural group associated with construction episodes during the Late Preclassic period are terraced structures. Terraced structures have been found at Str. A-1\Sub 1, B-4\10th, and Str. B-4\11th and likely served ritual or political functions. The structures located in the civic-ceremonial center of Cahal Pech were used for both secular and religious purposes.

Throughout the centuries, the buildings and plaza groups within the Cahal Pech site core center underwent numerous modifications well into the Late Classic period (AD 600-900). Presently, the terminal site core is composed of 34 structures oriented around seven plaza groups (Awe 2008; Peniche 2013). The building types found within the site core of Cahal Pech include

two ball courts, temple pyramids, and several range structures (Awe 2008). Furthermore, archaeological features at the site include eight plain stelae, one altar, and a possible sweat bath. Awe (2008) asserts that the site core is oriented east to west where the western plaza groups (Plaza A, D, and E) are more elevated compared to plaza groups in the eastern section (Plazas B, C, F, and G). The western plaza groups were also semi-restricted as these groups are encased by architectural features suggesting that these spaces were more privatized compared to plaza groups in the eastern sector of the site (Awe 2008). The western sector of the site was likely for elite use as Str. A-2 consists of 13 doorways that, in Maya cosmology, reflect the 13 layers of heaven indicating the people who lived in this area were attempting to elevate their status within the community through embedding cosmological symbology within the built environment. The eastern sector of the site is likely where more public events took place as this location is less restrictive.

Description of Zopilote Group

The Zopilote Group is a terminus group located .75 kilometers south of the Cahal Pech site core and is connected to the site via a linear causeway system (Figure 1.3; Awe 1992; Cheetham et al. 1992; Cheetham et al. 1993; Cheetham 2004; Ebert and Fox 2016; Fox and Awe 2017). The group contains five mound-structures, two chultuns, and evidence of probable reservoirs located near Str. 1 (Ferguson et al. 1994). Str. 1 is an 11.5 meter tall temple composed of ten superimposed construction episodes that span from the Middle Preclassic (900-300 BC) into the Late Classic period (AD 600-(900-1000) (Cheetham et al. 1992; Cheetham et al. 1993; Cheetham 2004; Ebert and Fox 2016; Fox and Awe 2017). Str. 1 is located at the southern end of an artificial limestone platform where the causeway terminates. This causeway, known as the Martinez Causeway, was constructed in the Late Preclassic period and extends 280 meters north of the platform group and likely was connected to the Cahal Pech site core in antiquity

(Cheetham et al. 1993; Cheetham 2004; Ebert and Fox 2016). The foundations of Str. 1 predates the construction of the Martinez Sacbe indicating that the Zopilote Group was eventually connected to the Cahal Pech site core during the Late Preclassic period.

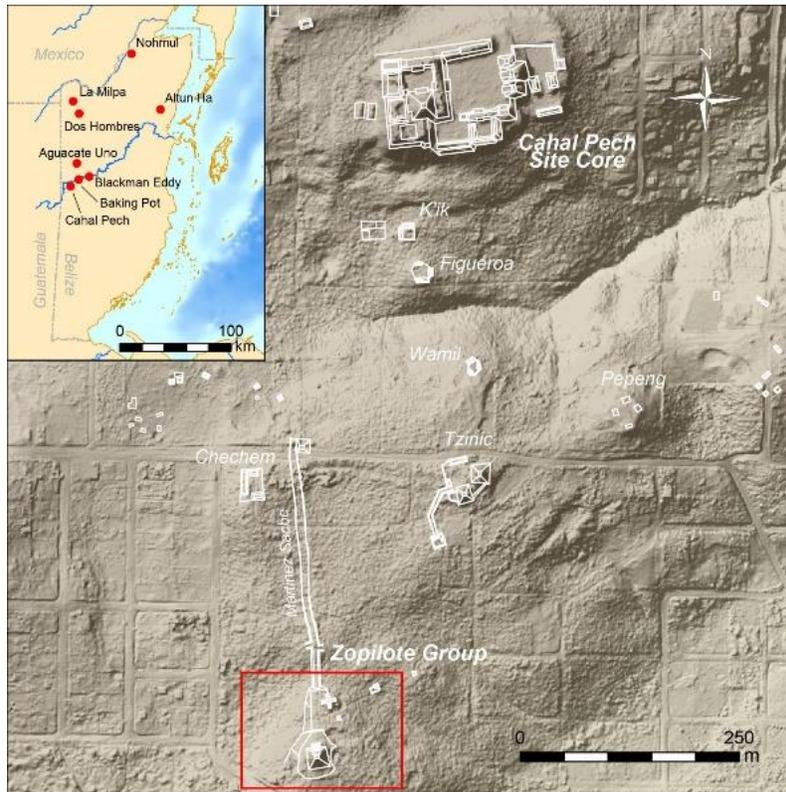


Figure 1.3. Map of the Cahal Pech hinterlands. The Zopilote Group is delineated by the red box (Image by Claire Ebert; Courtesy of BVAR).

Str. 2 is a 4.5 m building that is located in the northeast corner of the platform where the Martinez sacbe terminates (Cheetham 2004; Ebert and Fox 2016). This structure was built in one construction phase during the Late Classic period. Str. 2 faces west where the Martinez causeway and the northern side of Str.1 are visible. Though initially hypothesized to contain an elite tomb, no cultural evidence of this assumption has yet to be recovered (Cheetham 2004; Ebert and Fox 2016).

Str. 3 is a 2.6 m temple that is located on a small platform appended to the east side of the Martinez causeway on the northern end (Cheetham 2004; Ferguson et al. 1994). This temple

faces west towards the causeway and was reported to contain a tomb with finely cut stones (Cheetham 2004). However, due to intensive looting, no cultural materials were recovered that validate this claim.

Str. 4 is located 40 meters east of the main platform group and measures 1.75 meters tall (Ferguson et al. 1994). Ferguson and colleagues (1994) report that Str. 4 likely served a household function due to the structure's small size and its displacement from the main plaza. However, due to extensive looting, the interior of the structure has been disturbed and looters back dirt has distorted the structure's true shape and size. Examination of the baulk of the looter's trench revealed a series of superimposed, plaster floors (Ferguson et al. 1994). Yet, due to the amount of damage caused by the looters, the function of Str. 4 could not be assessed.

Finally, Str. 5 at the Zopilote Group is located 100 meters east of the main platform. This structure measures 25 centimeters in height and likely served a residential function (Cheetham et al. 1992; Ferguson et al. 1994). Cheetham and colleagues (1992) recovered ceramic evidence that correlates to the Late Classic period that perhaps indicates when the structure was first erected, yet more excavations are needed to confirm this assumption.

The White Roads of the Maya

Sacbeob, or "white roads" in Yucatec Maya, are causeways constructed of limestone and fill that interlink site cores with peripheral locations and other major centers. Researchers have defined two types of causeway systems: intrasite and intersite causeway systems (Cheetham 2004; Schwake 2000). Intrasite causeway systems link site cores with residential, administrative, and ritual architectural complexes within a small geographical area. Schwake (2000) claims that the link made between site cores and terminus groups in intrasite causeway systems exemplify the statuses of people occupying those centers. Elites residing in the epicenter could associate themselves with an ancestral shrine or have access to local markets. Intersite causeway systems

are generally long, often extending several kilometers. They also link major centers together and often reflect subordinate relations or may facilitate economic, religious, or political interactions between the two sites (Schwabe 2000). Intersite causeway systems could also be used for tributary and interregional trade networks. Good examples of intersite causeways include the 100-kilometer-long sacbe that links Coba with Yaxuna or the sacbe connecting Uxmal with Kabah, both in the Yucatan. The sacbe linking the Zopilote Group with the Cahal Pech site core provides an example of intrasite causeway system for Zopilote is only .75 kilometers south of Cahal Pech and does not contain features consistent with major centers.

Shaw (2008) identifies three types of sacbe systems commonly found throughout the Maya Lowlands. The first type of sacbe configuration reported by Shaw (2008) is linear systems that link together groups of similar scale and are viewed as non-hierarchical. The second type of sacbe system is cruciform in nature. Cruciform sacbe systems radiate in four directions from a central location. Cruciform sacbe systems seem to mirror the concept of quincunx, where four extensions emanate from a central node (Shaw 2008). This type of system could also represent the quadripartite division of the cosmos reflecting the symbolic completion of the cycle of the sun (Shaw 2008). Regardless, cruciform sacbe systems correlate to Ashmore's (1991) concept of cosmological principles based on directionality that dictates site configurations. The final sacbe system is dendritic causeway systems. Dendritic causeway systems are also hierarchical where causeways emanate from a central epicenter to various architectural complexes found throughout the landscape. For example, the site of Caracol represents an example of a dendritic causeway system. From Caracol's epicenter, causeways descend out to other groups forming two concentric rings. The first ring is associated with marketplaces and administrative centers whereas the second ring engulfed preexisting sites consumed by the growth of Caracol (Chase

and Chase 2001; Chase et al. 2015; Shaw 2008). Dendritic systems are thought to have more of a utilitarian function focusing on connecting the site core with surrounding periphery locations that may have been already established before the construction of the causeway system.

Ritual Usage of Sacbes. Sacbes are also endowed with ritual symbolism associated with cosmological principles based on creation myths. In the Popul Vuh, we are told that the hero twins descended into Xibalba (the underworld) by way of a sacbe (Tedlock 1996). Palka (2014: 96) claims that the “convergence of causeways at major temples in site cores may also be related to the Mayas’ conception of their sites as being the center to the ‘umbilicus/naval of the world.’” Sacbes have also been described as serving a “life sustaining connection which fed the ancient rulers who live in now ruined structures” (Schwabe 2000: 9). Numerous terminus groups contain large temples that are seen as ritual mountains, or *witz*, that housed the spirits of ancestors (Stone and Zender 2001; Taube 2004). These temples show evidence of ritual behaviors that may be aimed at ritually feeding ancestors who act as intermediaries between the living and the divine. The idea of sacbes functioning to feed ancestors who inhabit ruins that are at the center of the *axis mundi* correlates with the idea of the Maya engaging in pilgrimages and processions down causeways to perform rituals associated with ancestor worship. The presence of large platforms and funerary temples at numerous terminus groups fortifies the argument that large crowds of spectators could gather at these locations for events, such as public rituals. “The pilgrimage sanctuaries in ritual landscapes are communicating places where deities can be spoken to and appeased and function much like the communicating objects of Maya stelae, statuary, figurines, and skeletal remains” (Palka 2014: 58). Therefore, since sacbes connect to terminus groups they could function as localities for contacting and revering the divine.

Economic Usage of Sacbes.

Some scholars suggest that causeways served more of an economic rather than religious function. Roads facilitate the movement of large amounts of people who could engage in mercantile activities, such as marketplaces. Shaw (2008: 107) states that “administrative and market locations are indicated for termini with the system as a whole geared toward managing the flow of goods through the epicenter as termini are part of a centrally administered economy in which economic production took place primarily in outlying residential groups with differing specializations.” Causeways could connect various localities together who specialize in producing different commodities reinforcing trade relations and forging alliances.

The Function of Terminus Groups in the Maya Lowlands

Current hypotheses regarding the role of terminus groups in the Maya Lowlands have attributed these architectural groups as serving religious, political, and economic functions (Audet 2006; Awe et al. 2009; Chase and Chase 2001; Chase et al. 2015; Cheetham 2004; Ebert and Fox 2016; Fox and Awe 2017; Schwake 2000). Ashmore (1991) states that symbolic manipulation of space is common in the Maya area and is often associated with directionality that symbolically charged the positions of architectural arrangements (Figure 1.4). The cosmological layout of the built environment is based on notions of a multilayered universe, the unification of these layers in time via the cycles of celestial bodies, vertical connection in space between the natural world and supernatural domains, and a division of the world according to the cardinal directions (Ashmore 1991). For a site to emulate a cosmological configuration, the Maya consciously must have adhered to these principles during site planning prior to the erection of a site. However, many terminus groups existed before the construction of the causeways that link them to their corresponding site cores (Cheetham 2004; Chase et al. 2015). Therefore, many terminus groups do not conform to the cosmological layout of Maya sites proposed by Ashmore.

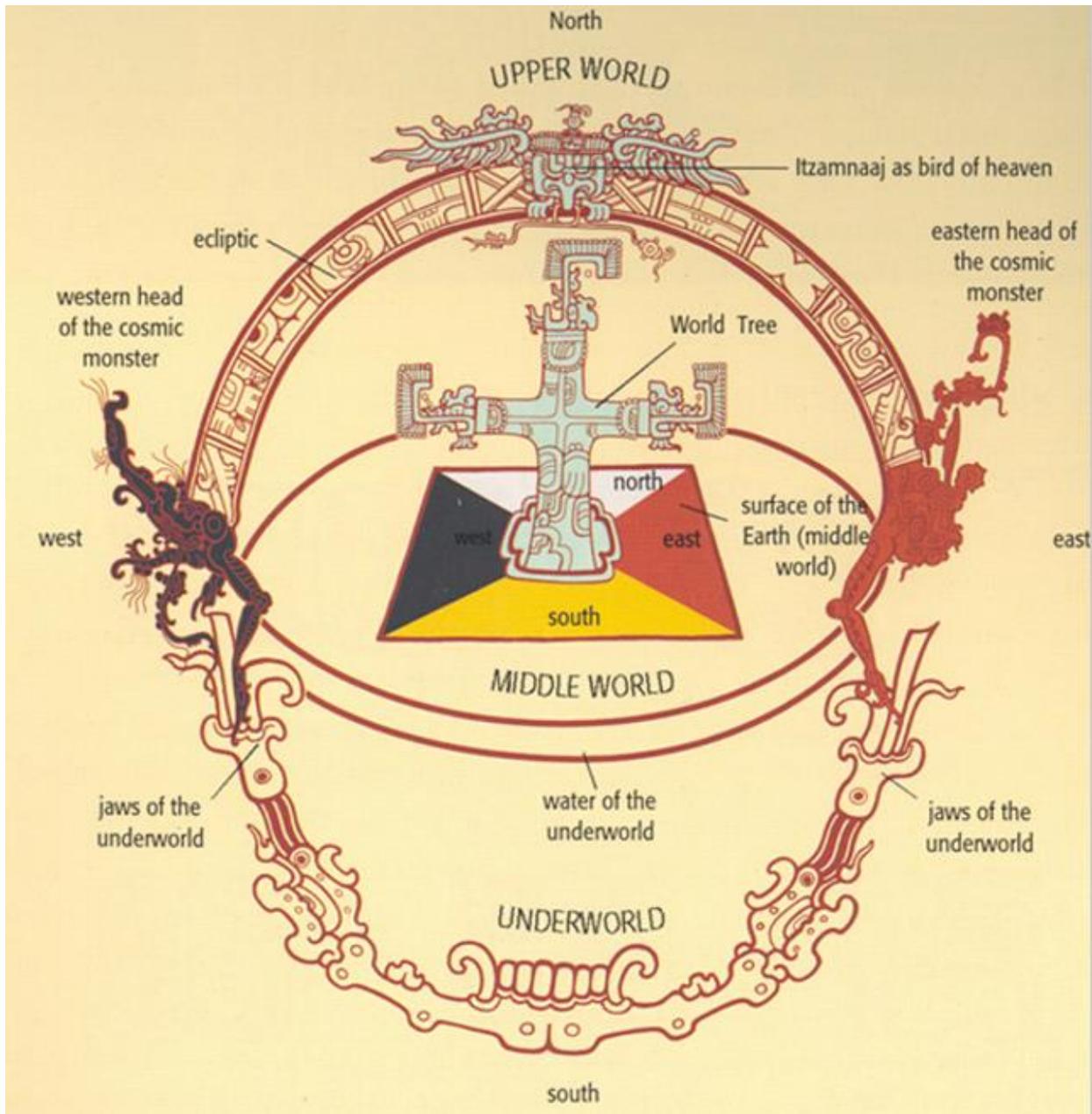


Figure 1.4. Image of Maya Cosmology. This image represents the concept of *axis mundi* and the quadripartite division of the earth (Shele and Miller 1992).

Ritual Functions of Terminus Groups.

Terminus groups have been hypothesized as serving a ritual purpose as the causeway systems allow the procession of large amounts of people to engage in ritual activities at the causeway-termini (Cheetham 2004; Shaw 2008; Schwake

2000). At many terminus groups in the Belize River Valley, one set of features that are commonly found are stela-altar complexes. Stelae are symbolic of trees that cover the earth whereas altars function as portals between the terrestrial and supernatural world (Schwartz 2000). Furthermore, many terminus groups have funerary temples that house the remains of ancestors who may have become objects of veneration. The procession of people down a causeway to perform rituals at architectural complexes that house the remains of ancestors and contain ritual features, such as stela-altar complexes, may be considered sacred landscapes and become targets of ritual pilgrimages.

Political Functions of Terminus Groups. Some terminus groups may predate the construction of the causeways that connect the group to their corresponding site cores. These groups may have later been incorporated into the site layout to produce ideological and political messages (Cheatham 2004). Shaw (2008) asserts that roadways may serve as a political mechanism to exert power, control, or ownership of territories by allowing the movement of armies and delineating property boundaries. In the case of terminus groups, the incorporation of preexisting sites with the epicenter may be a mechanism for political control. On the other hand, elites may also be connecting themselves with places that are endowed with historical significance, such as funerary locations of elite ancestors, in an attempt to legitimize their right to rule. This is especially true as numerous terminus groups contain stela they may contain historical information and symbols related to the dynastic lineage of a site.

Economic Functions of Terminus Groups. Terminus groups are also associated with serving an economic function in the form of marketplaces. As stated earlier, causeways facilitate the movement of people, goods, and ideas from one place to another (Shaw 2008). Many causeways terminate at expansive, limestone platforms that are surrounded by range structures

(Chase et al. 2015). These range structures are thought to function as market stalls where merchants would sell goods to the incoming population. These marketplaces also have smaller causeways that lead to large, elite compounds. These compounds are thought to serve an administrative purpose, such as overseeing transactions in the marketplace (Chase et al. 2015). Dahlin (2007) states exchanges may have been highly centralized and elites likely oversaw the dominant mode of exchange in the marketplace. At Caracol, Chase and colleagues (2015) associate four of the terminus groups in the periphery as locations for possible marketplaces. Some of these terminus groups were thought to sell foodstuffs whereas others may have sold exotic goods imported from other areas.

Methodological Approach

To analyze the function of terminus groups in the Maya Lowlands, I evaluate the previous research conducted at Zopilote Group over the past two decades by the Belize Valley Archaeological Reconnaissance project [BVAR]. I draw upon excavations conducted by Cheetham and colleagues (1993; 1994) and Ebert and Fox (2016) to establish an approximate chronology of the site based on AMS dates collected through vertical excavations conducted at Str.1. Using an interpretive approach combined with depositional process analysis, I evaluate the archaeological materials found during previous excavations to assess how these artifacts and features give insight into what function the Zopilote Group may have served. These findings will then be correlated with the data recovered from excavations conducted at Str. 2 to give insight into what cultural activities were being performed at the site. The results of laboratory analysis performed on ceramic and lithic materials found at Str. 2 will be discussed to gauge if there are any overarching patterns observable from the cultural materials that reflect established cultural behaviors. Finally, the archaeological evidence from the Zopilote Group will be compared to

other terminus groups on a regional scale, focusing specifically on the Belize River Valley and then branching off to other sites in the Maya Lowlands.

Research Questions

The research conducted at the Zopilote Group seeks to answer a number of questions relevant to archaeological inquiry. The first level of analysis seeks to establish what was the function of the Zopilote Group? Was the role of the site related to political, economic, and or religious functionality and, if so, what material evidence fortifies this assumption? Who are the agents performing activities at the site and are they identifiable? Finally, how does the evidence from the Zopilote Group correlate with other terminus groups in Maya Lowlands? Is the functionality similar or different and what evidence supports these findings? These research questions will aid in future archaeological investigations focusing on the function and meaning of architecture in regards to serving a political, economic, or religious role that can be applied to other sites throughout Mesoamerica.

Chapter 2: Symbolic Landscapes and Interpretive Archaeology:

A Theoretical Approach

The site configurations of ancient Maya centers were constructed based on cosmological, ideological, and functional principles. Understanding how the Maya viewed the landscape around them is important in assessing the function of terminus groups in the Maya Lowlands. The Maya perceive the landscape as being endowed with sacred energy, or *ch'ul*, in Yucatec Maya (Taube 2004). This sacred energy is associated with deities and ancestors who reside in caves, ancient ruins, mountains, and other naturalistic elements that permeate across the landscape (Palka 2014). The various types of site configurations illustrate that architectural constructs were predicated on conveying messages regarding religious worldviews, used as markers of elite prestige, or built according to more practical notions, such as topographic restraint. In order to analyze the function and meaning of the Zopilote Group, I analyze the architectural layout and archaeological materials recovered from the site through the theoretical lens of interpretive archaeology. I draw specifically from two schools of interpretive archaeology: symbolic and landscape archaeology (Hodder 1995; Tilley 1997). Both approaches view the landscape and the archaeological record as a symbolic text that can be interpreted through a specific cultural context, providing knowledge of that culture's worldview in regard to the built environment. I further utilize aspects of depositional analysis based on behavioral archaeology to determine how various artifacts and features found at the Zopilote Group came to be found in their initial positions and whether post-depositional processes may have displaced these features from their original provenience (Schiffer 1987). This chapter first gives a brief description of ancient Maya cosmological principles and summarizes the theoretical frameworks

of symbolic, landscape, and behavioral archaeology that will be applied for the analysis of the Zopilote Group.

Maya Cosmology

As stated previously, the Maya viewed the world around them as endowed with sacred energy that sees life both in animate and inanimate objects. The Maya worldview coincides with the concept of animism found in numerous cultures around the world. Tylor (1958) claims that animism is concerned with the souls of individual creatures capable of existing after death and destruction of the body in addition to the spirits of powerful deities. Animals, people, material goods, in addition to features in the natural and built environment, are thought to be animated with spirits and sacred energy. Especially important in the Maya religious scheme are ancestral cults. McAnany (1995: 8) asserts that “ancestor veneration, through lineage organization charted and legitimized resource rights through the mechanisms of oral memory, written records, and, most importantly the continued physical presence of buried ancestors in domestic complexes which were, in effect, a type of domestic mausoleum.” The Maya lived in close proximity to the dead and some important ancestors became venerated in order to act as intermediaries between the human world and the gods. The gods embody naturalistic forces, such as death, rain, and the sun, in addition to symbolizing social aspects of the Maya world, such as mercantile activities (Taube 1992). Features in the landscapes, such as caves and ancient ruins, are thought to be communication locations where ritual specialists and participants travel to perform rituals involving offerings on behalf of the community. Ritual is defined as processes that make and remake social facts and collective identities (Comoroff and Comoroff 1992). Social facts are described as values, cultural norms, and social structures that are adhered to by the community to exercise social control (Durkheim 1885). By performing rituals at certain areas that are considered sacred, the Maya venerate their ancestors to petition the gods for beneficial favors,

such as abundant rains, while simultaneously reinforcing cultural values and expectations held dear to the community.

Additionally, important is how the Maya conceived the structure of the cosmos as these attributes are sometimes reflected in the built environment. Maya cosmology sees the world partitioned both on a vertical axis and horizontal plane. The terrestrial world is connected vertically to the heavens and the underworld through the concept of *axis mundi*, in this case, personified as a great ceiba tree (Friedel et al. 1993; Tedlock 1996). The roots of the ceiba tree are thought to penetrate the nine levels of the underworld, or *Xibalba* (Place of Fright), whereas the canopy of the ceiba reaches to the 13 levels of heavens where the ancestors are thought to reside. The medium that connects the different spheres of the *axis mundi* has also been viewed as a causeway. Taube (2004) states that among the Yucatec Maya, the souls of the dead follow the road of the sun to the heavens. In the *Popol Vuh*, the hero twins are thought to descend into the underworld by traveling on a causeway (Schwabe 2000; Tedlock 1996). Schwabe (2000: 9) asserts that the perception of the *axis mundi* as a causeway is symbolic of the sky-umbilicus that functions as a “life sustaining connection which fed the ancient rulers who lived in the now ruined structures”. The numbers and symbols associated with these cosmological configurations are important as the Maya incorporated them into the built environment to reflect their worldview.

Directionality is also an important concept of site plans the ancient Maya used to construct the built environment that reflects their cosmology. The terrestrial world is divided according to the cardinal directions symbolizing the pathways of the sun (Ashmore 1991; Schwabe 2000). The east is associated with where the sun emerges in the morning, the north symbolizes the sun at its zenith, the west is viewed as where the sun enters the underworld, and

the south represents the sun as halfway through its journey through *Xibalba* (Schwake 2000).

The cycles of the sun are important as numerous rulers in the Maya world associated themselves with this celestial body to portray themselves as the center of the universe, highlight their regenerative nature, and their ability to contact the spirit world as the sun can permeate through the heavens and the underworld. The built environment at numerous centers adheres to the directional principles of Maya cosmology and acts as a microcosm reflecting this worldview.

Symbolic Archaeology

Symbolic archaeology serves as a theoretical lens that aids in deciphering the built environment and artifactual material found at a site in accordance with Maya cosmological principles. Symbolic archaeology states that the material culture found at an archaeological site is meaningfully constituted and acts as a text where ideas and concepts manifest themselves within the archaeological record (Hodder 1995). Symbolic archaeology claims the material record reflects human behaviors that are symbolically charged through ideological, religious, and social meaning that are guided through rules and codes established by a specific society (Hodder 1995). Therefore, context is crucial in the application of symbolic archaeology as these rules and codes can shift according to where research is taking place. Hodder (1995) claims that archaeological research must utilize a double hermeneutic approach that uses western science and meaning within a specific cultural context. Context is defined as the totality of the relevant environment and the associations that are relevant to its meaning (Hodder 1995). In the Maya area, knowledge about the cosmological framework of Maya culture coupled with rigorous, archaeological investigations of the built environment is important in assessing the function of terminus groups in the Maya Lowlands.

Archaeological investigations of the built environment using symbolic archaeology must also consider the occupational history of the site. The occupational history of a site can be

analyzed by applying radiometric dating techniques to test if features in the built environment were constructed during the same temporal period. This applies to architectural components such as site cores, sacbes, and the terminus groups themselves. If the evidence suggests that these architectural features were built during the same period and these features are oriented towards the cardinal directions, then archaeologists can posit that the site's configuration is cosmologically oriented. However, if the site core and the terminus groups were already built and later a sacbe system was constructed to link the groups together, then different motives for site configuration may have been at play. If elites wanted to incorporate preestablished periphery locations with the site core, then economic or administrative motives may have influenced the site's layout. On the other hand, if elites wanted to reinforce their right to rule, then they may incorporate locations embedded with symbolic significance, such as places associated with important ancestors or powerful deities, to convey ideological messages to the surrounding population through embedding these messages into the landscape itself. However, only through rigorous scientific testing in correlation with the context under study can these assertions accurately be founded.

Symbolic archaeology is also applicable to artifactual contexts, especially caches and other artifactual deposits. Hodder (1995: 14) claims that "for the archaeologist wishing to understand the past meanings of objects it is thus essential to define the context within which an object has associations which contribute to its meaning." The result is attempting to analyze the dialectical relationship between object and context by drawing upon the concepts of thick description and semiotics that are embedded in the theoretical framework of symbolic archaeology (Geertz 1973; Hodder 1995; Levi-Strauss 1995). Thick description is a term associated with interpretive anthropology and concerns itself with the stratified hierarchy of

meaningful structures that are produced, perceived, and interpreted (Geertz 1973). Thick description views cultures as a web of symbolic meaning that function as a text that must be analyzed within a specific context (Geertz 1973). Semiotics attempts to understand how the objects and the symbolism they represent are organized and communicate embedded meaning (Hawkes 2003; Levi-Strauss 1955). Symbolic archaeology utilizes aspects of both thick description and semiotics in relation to signs and symbolism without the structuralist framework embedded in semiotic analysis. Symbolic archaeologists maintain that ideas and beliefs are expressed and reproduced in all forms of human agency.

Landscape Archaeology

Landscape archaeology investigates the function and meaning of the natural and constructed landscapes experienced by social agents living in various contexts. The insight from applying landscape archaeology in analyzing the function of terminus groups is beneficial as these architectural spaces can have numerous meanings and serve various purposes. A social space is constituted by the various human experiences that interact with landscapes to attach meaning and value to various localities. Tilley (1997) describes five types of spaces in landscape archaeology: somatic space, perceptual space, existential space, architectural space, and cognitive space. Somatic space is associated with habitual and unselfconscious action through sensory experience and bodily movement. Perceptual space is encountered through an individual's daily activities and is grounded upon distances, directions, natural objects and cultural creations. Existential space is constructed by individuals socialized within a group where meaning is produced through the production and reproduction of movements and activities performed by the group. Architectural space attempts to create and bound space through artificial construction. Finally, cognitive space is a basis for reflection and theorization of the other types of spaces.

Somatic, perceptual, existential, architectural, and cognitive spaces are all applicable to many aspects of Mesoamerican archaeology. I will use the example of pilgrimage as a baseline example of how landscape archaeology informs researchers about how social spaces are perceived and negotiated by the agents involved. Palka (2014: 52) states that pilgrimages occur in times of drought, imbalances, and conflict and can be characterized as “meta-structures in human society, like household and interregional trade networks, that survive the ebbs and flows of political, religious, and economic changes to unite people within and between societies over centuries.” Motives for conducting a pilgrimage to ritual landscapes could first be based on disturbances in somatic and perceptual conceptions of space caused by external factors, such as drought or crop failure, that lead groups of individuals to engage in these processions. The destination of the pilgrimage could be viewed as an existential space endowed with religious importance perceived by the collective group where these religious rites will be executed. If the pilgrimage site happens to be an ancient ruin, an ancestral shrine for example, then architectural space will demarcate where these religious activities will occur. The space will be endowed with religious importance highlighting the cognitive aspect of why this space is being used. Landscape archaeology provides a lens to examine the personal biographies, social identities, and biographies of place embedded within natural and culturally constructed environments; factors that are necessary for examining what the function of the Zopilote Group was in the time of the ancient Maya.

Behavioral Archaeology

In her study of a causeway terminus group at Baking Pot, Carolyn Audet (2006) noted that causeway termini groups are often associated with deposits or artifacts found around them. Palka (2014) also noted that Maya archaeological sites are continuously revisited by individuals inhabiting hinterland locations where traditional cultural behaviors persist. According to Schiffer

(1987: 7), “Cultural formation processes are responsible for retaining items in systemic context to form the historical record, for depositing artifacts, thus creating the archaeological record, and for any subsequent cultural modification of material in either record.” Behavioral archaeology is, therefore, a useful approach for analyzing artifacts associated with abandoned sites, and for understanding the depositional processes that led to the formation of these deposits, especially if these deposits are thought to have occurred over a vast time. Behavioral archaeology asserts that specific formation processes are determined by causative variables that are predictable and regularly occurring. Deviation from predictable depositional patterning may indicate that ritual or other symbolic behaviors are being conducted, what Schiffer describes as symbolic causality (Schiffer 1987). However, cultural and environmental forces can lead to the disturbance of artifactual materials from their primary provenience, what Schiffer describes as c-transforms and n-transforms (Schiffer 1987). C-transforms are associated with cultural disturbances whereas n-transforms are associated with environmental processes, such as bioturbation. By determining whether archaeological features are found in situ or are the result of secondary processes can allude to the type of cultural behaviors that led to their deposition. Ritual sweeping, reuse, or bioturbation can result in artifacts being displaced from their original contexts. Therefore, behavioral archaeology becomes an integral tool for analyzing cultural behaviors that may give insight into how terminus groups functioned in antiquity.

Summary

The application of symbolic, landscape, and behavioral archaeology theoretical frameworks allows archaeologists to utilize a combination of processual and post-processual approaches to archaeological analysis. Ancient Maya places were imbued with sacred energies and spiritual forces that must be analyzed contextually to adequately interpret associated

archaeological materials. The built environment, utilitarian crafts, and the natural landscape are animated with these energies and act as a dialectic that can be analyzed for their symbolic importance. By having knowledge of how the ancient Maya perceived the world, archaeologists can begin to decipher the symbolic narrative that is present within the archaeological record and the built environment. However, archaeological materials can be manipulated from their primary contexts due to cultural and environmental factors and, thus, it is up to the archaeologist to find deviations from the predictable pattern of deposition associated with known cultural behaviors.

This is especially important when attempting to categorize what cultural behaviors account for the formation of archaeological features and deposits. Context, archaeological correlates, and knowledge of Maya culture and traditions are key to deciphering the meanings of these features. By utilizing these theoretical approaches to analyze architectural form, sacbe function, and archaeological deposits found at a site, the role and symbology of the Zopilote Group and other terminus groups throughout the Maya world can be accurately assessed.

Chapter 3: Excavation and Laboratory Methodologies

This chapter describes the excavation and laboratory methods used to investigate the Zopilote Group during the 2015-2017 field seasons. Horizontal excavations were used to expose *in situ* terminal architecture and surficial cultural materials. Vertical excavations sought to investigate subsurface construction episodes at Str. 1 and Str. 2. All cultural materials were processed, inventoried, and systematically analyzed by various typological techniques in 2017. The goal of these excavation and laboratory methods is to explore how the Zopilote Group functioned as a terminus group by analyzing the cultural materials discovered in association with other features found at the site to gauge whether these materials correlate with political, religious, or economic purposes.

2015 Field Excavations

Excavations conducted by BVAR at the Zopilote Group focused on analyzing two primary objectives. The first objective was to refine the chronological sequence of Str. 1 through vertical excavations on the upper part of the northern axial staircase, a unit previously excavated by Cheetham (1993). The goal was to collect charcoal samples from the excavation unit for AMS dating conducted at Penn State University, where Dr. Claire Ebert, the investigator of this excavation, could analyze these samples. In doing so, Dr. Ebert was able to refine the dates for the construction episodes at the Zopilote Group, the earliest dating back to the Middle Preclassic period (Ebert 2017).

Excavations at Str. 2 at the Zopilote Group

Our second objective was to analyze the architectural form and function of Str. 2, a structure located on the northeastern side of a raised, limestone platform where the Martinez sacbe terminates. The excavations focused on the southwestern face of Str. 2 and aimed at horizontally exposing the level below the humus/collapse stratum to recover evidence of any *in*

situ architectural features and recover any cultural materials. Horizontal excavations investigate synchronic cultural behavior that can be used to analyze relationships between artifacts and features found in a specific layer. Excavations on both structures were aided by the assistance of local Belizean workers and BVAR field students. At Str.2, once the humus layer was extracted and any intact architectural features were recovered, a vertical excavation unit were placed to penetrate the terminal architecture to analyze the number of building episodes that are present beneath the structure through stratigraphic analysis. When exposed features were discovered, elevations were taken using a datum as a point of reference. One feature that was discovered was a large concentration of ceramics and other artifactual materials lying over the terminal floor. These artifactual materials are associated with terminal deposits. Terminal deposits are “large surficial ceramic deposits located in the corners of plazas, in front of stairs, and in the doorways of public architecture and date to the final use of the structure” (Ebert and Fox 2016). Vertical photographs of the deposit were taken for later photogrammetry using AgiSoft software. Once the deposit was removed, a 94cm x2m vertical excavation unit abutting an intact wall reach bedrock, and when a profile drawing of the northern baulk of the excavation unit was completed, excavations halted due to time restraints. The southern baulk of the excavation unit indicated that the terminal deposit continued into the wall. This observation directed the focus of excavations during the 2016 field season.

Looters Trench.

A large looter’s trench is located on the summit of Str. 2.

Excavations in the area were placed to salvage any artifactual material and discover any architectural features, such as occupational layers, that may indicate how many construction episodes Str. 2 underwent before its terminal phase construction. Large river cobbles were

present on the surface, indicating that the only thing we were likely to encounter was core fill. This hypothesis proved to be correct as no cultural material was recovered from this feature.

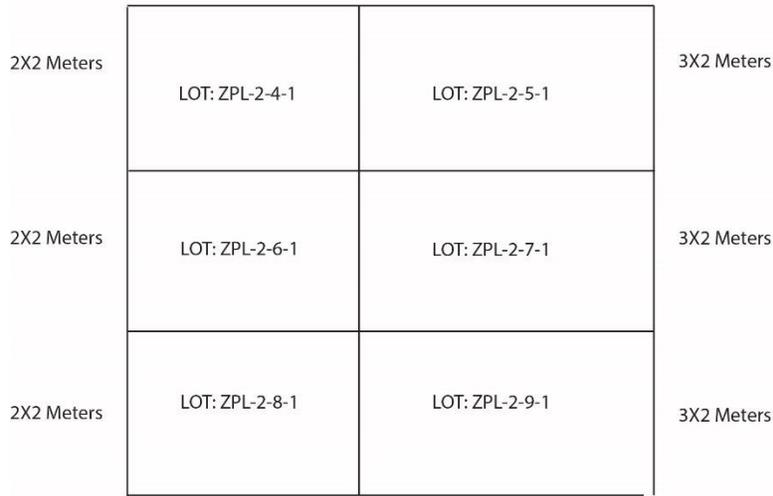
2016 Field Season at Str. 2 Zopilote

Our goals during the 2016 field season were to recover the rest of the artifactual material from the terminal deposit found the previous year and expose any intact architectural features on the western and eastern sides of Str. 2. Unlike the previous season, the humus layer seems to have been covered by a light grey marl stratum. I made the conclusion this stratum was material that accumulated due to looters activities on the summit of the structure. Therefore, I designated the looter's stratum a separate level as any artifactual material found in this layer would have no provenience associate with it. Before commencing excavations, a diagonal trench oriented northwest to the southeast was used to discover the baulk of the previous year's excavation unit. Once the baulk was discovered, a 2x3 m excavation unit was placed above the humic layer to ensure that all artifacts would be recovered from the unit. As in the previous year, once the terminal deposit was exposed vertical photographs were taken of the unit for photogrammetry. Excavations then continued until bedrock was discovered, marking on the southern baulk the elevations of all carbon samples that were found in the unit for use in a profile drawing. The baulk also revealed that the terminal deposit continued into the southern wall. The excavation unit was extended one meter south to recover the rest of the deposit. The unit was extended only one meter as the aforementioned looting activities had disturbed the integrity of the deposit beyond this distance. The extension unit was excavated in arbitrary layers of 15 cm. The decision to use arbitrary levels was made to record the depositional processes of the terminal deposit as this is the most concentrated area of artifacts found thus far. Vertical photographs of the layers were performed with associated elevation measurements to capture the deposit in time and space.

Excavations on the Eastern Face of Str. 2.

The goal of the excavations on the eastern side of Str. 2 was to horizontally expose any intact architectural features. However, there was evidence that bioturbation may have occurred due to the heavy presence of trees in the area. Renfrew and Bahn (2012: 71) assert that tropical environments are detrimental to the archaeological record due to “heavy rains, acid soils, warm temperatures, and insect life...[and] roots [that] dislodge masonry and tear buildings to pieces.” However, if *in situ* architecture was discovered, then the form of Str. 2 could be clearly ascertained. A 5x6 m area was chosen and was further subdivided into six sections (Figure 3.1). The left-hand section was composed of 2x2 m excavation units and the right-hand section was subdivided into 2x3 m units. Lot numbers were designated from the upper left to the right and continued until all units had lot designations. This methodology enabled us to record the precise location of all artifactual materials extracted from a specific unit. Excavations continued until all architectural features were revealed.

South-East Face Structure 2 Lot Designation



West Face Structure 2 Lot Designation

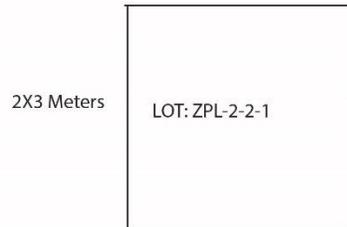


Figure 3.1. Unit designation on east side of Str. 2. The lower image gives lot designation for unit place on the west side of Str. 2 (Image by author).

2015-2016 Artifact Processing and Cataloging

The terminal deposit found at the Zopilote Group yielded so many artifacts that specific days of the week and the month of July in 2016 were dedicated to the processing and cataloging these artifacts. Ceramics were washed gently with a toothbrush and dipped periodically in water to remove any matrix or calcium carbonate from the exterior surface. Special care was taken when intact slip, paint, or poorly fired ceramics were encountered. Rims, bases, appliques, paint, incised designs, or any other characteristics that may indicate the type of ware a sherd represents

were separated from body sherds and labeled diagnostic. The amount of diagnostic ceramics out of the total amount found within a bag of artifacts was recorded on an artifact card along with its provenience. Chert cores and debitage were soaked in water to reveal the surface features to later inspect for evidence of human modification. Obsidian blades were counted and not cleaned as they can be used for future residue analysis. No faunal or human remains were recovered and, therefore, did not have to be processed. The date, the area or structure excavated, the excavation unit, the level, the lot designation, and the count of artifacts were recorded in an inventory for accounting purposes and later laboratory analysis.

2017 Laboratory Analysis

Laboratory analysis during the 2017 field season sought to analyze all lithic material and a 100% sample of the diagnostic ceramics that were excavated. Due to the lack of freshwater shell, marine shell, faunal remains, and human remains, most of the analyses performed were on lithic and ceramic materials. The lithic and ceramic materials analyzed were strictly from the terminal deposit, as little artifactual evidence was recovered below the terminal architecture. Before laboratory analysis began, all artifact bags from the previous excavation seasons were accounted for by day and any deviation from the original inventory was accounted for.

Lithic Analysis. Most of the lithic materials excavated from the deposit were chert except for a granite *metate* and *mano* fragment, a fragment of a slate wrench, and five obsidian blades. The following methodologies were performed on chert artifacts. These lithics were first separated by cores, tools, flake types, or classified as unmodified fragments of chert. Cores were categorized according to whether they exhibit unidirectional flaking, multidirectional flaking, or were fragments of cores. Unidirectional cores show that flakes taken from the core were in a uniform direction whereas multidirectional cores exhibit flakes taken from multiple angles.

The functional approach was used to classify lithic materials according to the formal tools found within the deposit. Functional categories were based on the most commonly found lithic tools in the Maya area which include bifaces, scrapers, projectile points, *manos* and *metates* (i.e., ground stone tools), and adzes. Bifaces were identified by evidence of pressure flaking on both edges on each side of an artifact. Scrapers were categorized by identifying evidence of retouching by pressure flaking on a specific side. Projectile points were identified according to lithic artifacts that show evidence of pressure flaking on the edges that comes to a point with a flange located on the distal end of the artifact. *Manos* and *metates* are granite artifacts used for processing organic material through grinding. The *metate* is used as a base where the material is placed and the *mano* is the instrument used for grinding. Finally, adzes are formal tools either used for digging or cutting of various materials. However, these categories were used as a baseline for analysis since all categories were not represented within the deposit.

Flakes were classified using the triple-cortex typology using the categories of primary, secondary, and tertiary flakes based on the level of cortex present on the exterior surface of a flake (After Andrefsky 2005). Primary flakes exhibit over 50% of the exterior surface covered in cortex, secondary flakes exhibit less than 50% cortex, and tertiary flakes exhibit no traces of cortex on the outside surface. The triple-cortex typology gives insight into the level of production a flake exhibits due to the amount of cortex that adorns a flake's surface (Andrefsky 2005).

Ceramic Analysis. Ceramic classification was based on the type-variety system constructed for the Belize River Valley (Gifford 1976). The type-variety system is a method of classification where the first step is to examine the most basic unit of analysis, which is the variety (Rice 2013). Varieties of ceramic vessels are categorized according to diagnostic

attributes such as decoration, vessel shape, and temper. Attributes are defined as elements of construction, form, technique of decoration, or design that form an artifact (Gifford 1976). Numerous varieties that are found in the same geographic location and temporal period are classified as a type that can be further categorized into ceramic systems and sequences. Gifford (1976: 9) defines a type as “representing an aggregate of distinct ceramic attributes that is indicative of a particular category of pottery produced during a specific time interval within a specific region.” Types can be used for relative dating purposes and just as interpretive archaeology posits, context is key. All ceramic varieties and forms are summed up in a ceramic complex that is aligned with a specific time period and geographic location.

Most of the ceramics recovered from the deposit correlate to the Spanish Lookout complex that dates to the Terminal Classic period (Gifford 1976). The Spanish Lookout ceramic phase is associated with use of volcanic ash as temper that was imported into the area (Gifford 1976). Ceramic analysis consisted of processing 100% sample of the diagnostic sherds that were extracted from the terminal deposit. Attributes that were used to specify ceramic types were based on rim form, external surface treatment, and paste characteristics.

Modal analysis was used to analyze the variability of ceramic forms that are present within the terminal deposit. A ceramic mode is defined as a “ceramic attribute that possesses singular extra-type importance and meaning beyond that of any purely descriptive feature” (Gifford 1976: 11). Vessel forms can be categorized as plates, dishes, bowls, jars, and vases depending on the angle of the rim in accordance with the side and base of the vessel. Table 3.2 illustrates the modal categorical system based off Sabloff’s (1975) research that uses the height of the vessel in relation to the diameter of the rim. However, it should be noted that the lack of

reconstructable vessels and a high proportion of rim sherds lacking bases found in the deposit means that Sabloff's classification system was used sparingly.

Table 3.1. Table illustrating the dimensions of various forms of ceramic vessels (after Sabloff 1975)

Vessel Forms	Definition
Plates	Height is less than 1/5 its maximum diameter
Dishes	Height more than 1/5 but less than 1/3 its maximum diameter.
Bowls	Height is more than 1/3 but no more than its maximum diameter
Jars	Height is greater than the maximum diameter and has a neck
Vase	Height is greater than its maximum diameter with a neck narrower in comparison with its height and width.

Analyzing the forms present in the deposit may indicate what cultural behaviors led to the deposit's formation. The ware type and their corresponding forms were tabulated and entered into an Excel sheet for later analysis. By analyzing ceramic and lithic materials through the aforementioned methodologies, we can then determine how Str. 2 functioned in relation to other features found at the Zopilote Group to conclude what types of activities were being conducted at the site, how these activities reflect what the function of Zopilote as a terminus group was, and how these activities correlate with other terminus groups in the Maya Lowlands.

Summary

Through Excavations conducted during the 2015 field season by BVAR, we sought to refine the dating of construction episodes of Str. 1 and investigate the architectural form and function of Str. 2. A large, terminal deposit discovered on the western face of Str. 2 led to 2016 excavations focusing on exposing the rest of the terminal deposit by extending the unit by 3x3 m. In addition, excavation units were placed on the eastern side of the structure in hopes of revealing *in situ* architectural features. Six excavation units covering a 5x6 m area were used yet

little information could be recovered due to bioturbation. All artifacts were processed and catalogued according to BVAR standards. The 2017 field season focused on analyzing a 100% sample of lithic and diagnostic ceramic materials recovered from the terminal deposit. The methodologies used in lithic analysis were separating cores from flakes and formal tools, the application of the functional approach for formal tool classification, and the triple-cortex typology for flake classification. Ceramic analysis was performed by using the type-variety method and modal analysis using the typology established for the Belize River Valley. This data will aid in investigating how Zopilote functioned as a terminus groups by analyzing the material remains discovered by Cheetham and colleagues (1993, 1994), Ebert (Ebert and Fox 2016; Ebert 2017), and myself (Fox and Awe 2017). The data can then be regionally compared to other causeway-termini groups located in the Maya area in an attempt to explore the political, religious, or economic function of these architectural complexes on a regional scale.

Chapter 4: Archaeological Research of the Zopilote Group

This chapter highlights the results of excavations conducted at the Zopilote Group by the BVAR project for over the past two decades. Excavations were first conducted by David Cheetham and colleagues in the early 1990's. The goal of these excavations was to examine the occupational history of the site through examining the construction episodes and associated ceramic types found within Str. 1. Str. 1 is a large temple located on the southern end of a raised platform where the Martinez sacbe terminates. Two burials were discovered beneath the northern staircase of the structure in association with numerous grave goods. Both burials are from Late Classic contexts.

Excavations were reinstated at the Zopilote Group during the 2015-2016 field seasons (Ebert 2017; Ebert and Fox 2016). Ebert sought to refine the occupational history of Str. 1 at the Zopilote Group using Accelerator Mass Spectrometry (AMS) on carbon samples found in association with construction phases at Str. 1. Excavations were also conducted at Str. 2 located on the eastern edge of where the Martinez sacbe terminates. Figure 4.1 illustrates the position of all excavations that have been conducted at Zopilote.

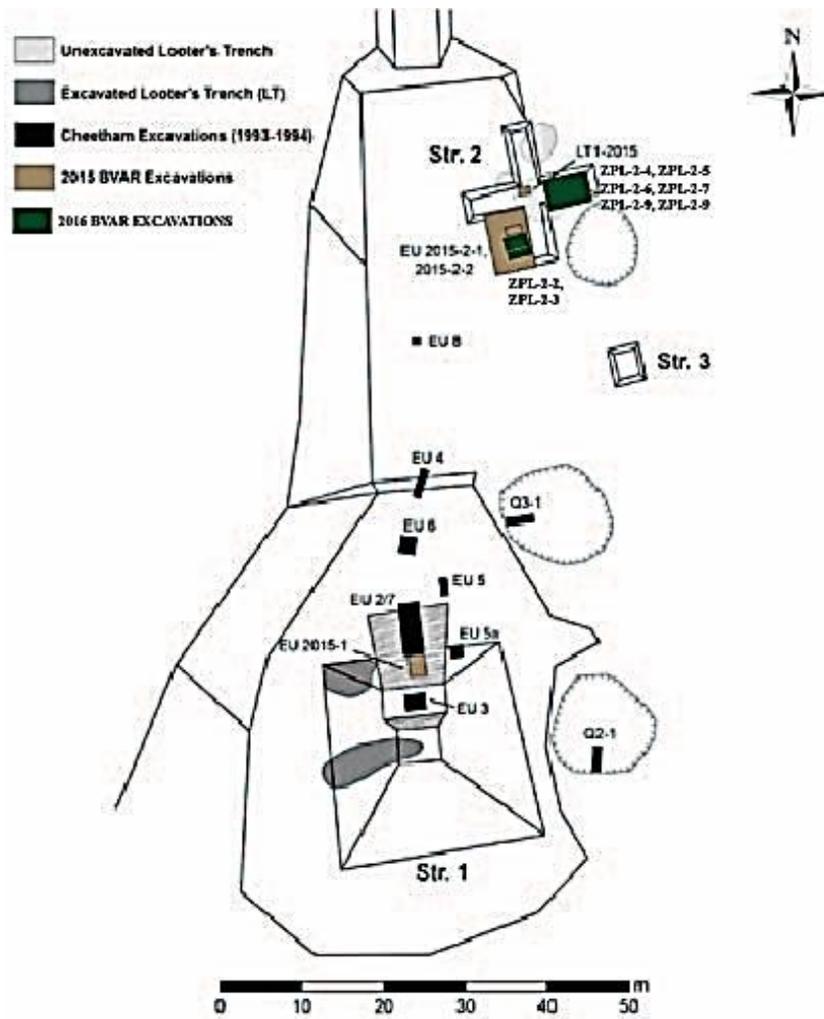


Figure 4.1 Map of the Zopilote Group and placement of excavation units. (after Ebert and Fox 2016).

Excavations Conducted by Cheetham, 1992-1994

The first series of excavations conducted at the Zopilote Group were performed by Cheetham under the auspices of BVAR in the early 1990's (Cheetham et al. 1993; Cheetham et al. 1994; Cheetham 2004). Excavations first sought to refine the chronological sequence of Str. 1. Cheetham and colleagues (1993) first conclude the occupational history of Str. 1 spans from the Middle Preclassic to the Late Classic period. (750 BC- AD 900). The Zopilote Group was eventually incorporated into a large ceremonial platform that became connected to the Cahal Pech site core via the construction of the Martinez sacbe during the Late Preclassic period (400

BC-AD 250). Excavations at Str. 1 revealed ten construction phases with the earliest ceramics yielding a relative date associated with the Middle Preclassic period (Figure 4.2).

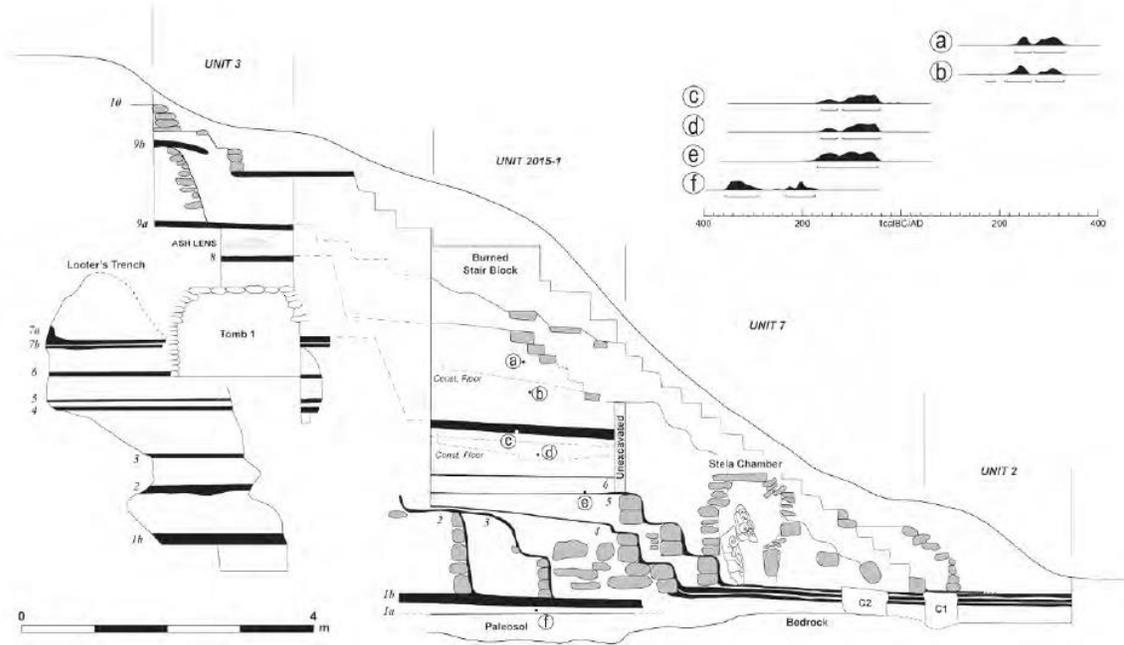


Figure 4.2. Profile of Str. 1, showing ten superimposed construction phases and the locations of samples selected for AMS dating (After Ebert 2017; Courtesy of BVAR).

1992 Excavations at the Zopilote Group.

Excavations on the northern staircase of Str.

1 revealed an elaborate burial dating to the Late Classic period (AD 600-900) (Cheetham et al. 1993). The primary individual interred in Tomb 1 is reported to be in the extended position with the head oriented to the south. The remains of a second individual were discovered in the form of a sacrificial head placed on a dish with an inverted bowl covering it. Both individuals were thought to be young males, the primary burial being of elite status.

Tomb 1 contained numerous grave goods alluding to the elite status of the primary burial found at the Zopilote Group. Table 4.1 illustrates the types of grave good recovered from Tomb 1. The presence of jade and marine shell indicates that the primary individual interred within

Tomb 1 had access to foreign goods imported into the Belize River Valley. Furthermore, two polychrome vessels were discovered by Cheetham and colleagues (1993) who claim these vessels may indicate the position the individual may have held at Cahal Pech. Vessel 2 portrays five individuals adorned with shields, holding spears, wearing animal skins, and adorning elaborate headdresses (Figure 4.3). Cheetham and colleagues (1993) claim that this imagery represents a military procession, perhaps down the Martinez sacbe, indicating perhaps the individual interred may have been a military leader. However, there is no other data that confirms this hypothesis, and therefore, no conclusion of what position this individual held can clearly be established.

Table 4.1. Table illustrating the artifacts found in association with Tomb 1 at the Zopilote Group (Table by author).

Artifact Types	Frequency
Jade Inserts	Several
Jade Effigy Pendent	1
Jade Beads	2
Stingray Spine	1
Spondylus Earflares	2
Disc Shaped Shell	1
Freshwater Shell	1
Small Stone Balls	2
Stucco Veneer Fragments	Several
Pottery Vessels	9



Figure 4.3. Image of the iconographic depictions of Vessel #2 found in Tomb 1 at the Zopilote Group. Has been suggested as depicting a military procession (Cheetham et al. 1993; Courtesy of BVAR).

1993 Excavations at Zopilote. Excavations conducted during the 1993 field season aimed to determine the chronological sequence of Str. 1 in addition to placing a vertical excavation unit at the base of the central staircase below where Tomb 1 was discovered the previous year. Cheetham and colleagues (1994) report discovering a vaulted tomb below the base of the northern staircase of the terminal architecture. Tomb 2, nicknamed the “Stela Chamber,” contained fragments of a stela in association with evidence of human sacrifice (Figure 4.4). The stela (Stela 9) was found in two fragments with the lower section missing. The remains of at least two infants were placed on top of the stela in the vicinity of a circular depression that may have acted as a receptacle for offerings (Awe et al. 2009; Cheetham et al. 1994). Additionally, approximately 200 small, hemispherical bowls containing 250 proximal, medial, and distal human phalanges were stacked in front of the stela and packed with matrix to keep their positions. There also were 39 adult mandible incisors and other human remains found at the base of the stela. Numerous artifacts were found in correlation with these human remains and can be found in Table 4.2.

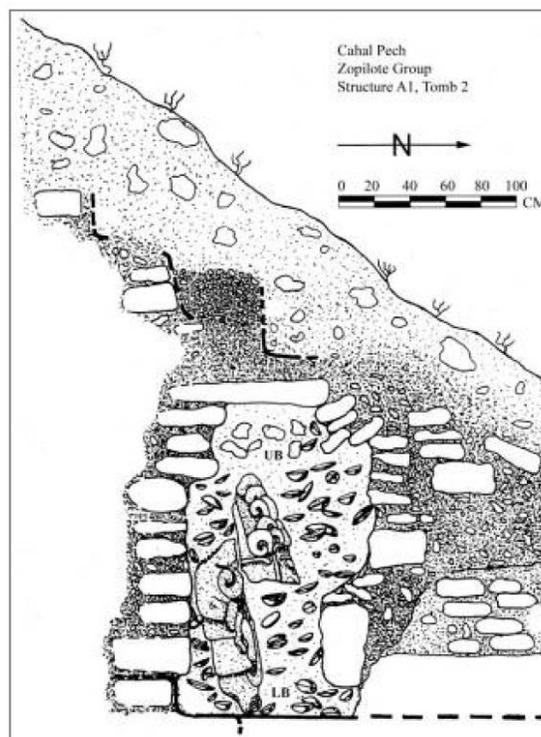


Figure 4.4. Profile drawing of the “Stela Chamber” found at Str. 1 at Zopilote. Stela 9 sits in a vaulted chamber packed with matrix with a significant amount of human sacrifice found within the chamber (after Awe et al. 2009; Courtesy of BVAR).

Iconographic analysis of the imagery on Stela 9 provides insight into the ritual significance of Str. 1 at the Zopilote group. Awe and colleagues (2009) claim that Stela 9 portrays an individual in the maw of a composite creature in a roll around motif similar to the Izapa style found in Highland Guatemala near the Pacific Coast (Figure 4.5). The composite creature contains elements of jaguar and serpent iconography. Awe and colleagues (2009: 182) claim that the “scrolls emanate from behind the eyes and the head and this may represent the ears of a jaguar” rather than smoke scrolls which were first suggested by Cheetham and colleagues (1994). Furthermore, Stela 9 includes a bifurcated tongue emanating from the mouth of this creature that the authors associate with serpent imagery (Awe et al. 2009). Awe and colleagues (2009) posit two conclusions regarding the meaning of Stela 9. Either the iconography represents the concept of the *way*, or animal co-spirit, that is a pan-Mesoamerican symbol associated with

shamanism (Awe et al. 2009; Houston and Stuart 1989). *Way*, or animal co-essence, is “an animal or celestial phenomenon that is believed to share in the consciousness of the person who owns it” (Houston and Stuart 1989: 1). Shamans, or more accurately religious specialists, are thought to symbolically transform into various entities they associate with power. The other conclusion Awe and colleagues (2009) suggest is Stela 9 depicts an ancestor in the maw of the earth monster. The Zinacantan Maya of Chiapas, Mexico still perform rituals aimed at honoring the Earth Lord who provides agricultural fertility and water when properly venerated (Vogt 1976). Awe and colleagues (2009: 185) conclude by stating “the fact that the stela was venerated for several 100 years, as indicated by its heavy wear, and that it was ritually deposited in the tomb, suggests Stela 9 may have been an important member of the local dynasty, possibly one of the Preclassic founders of the ruling Cahal Pech lineages.

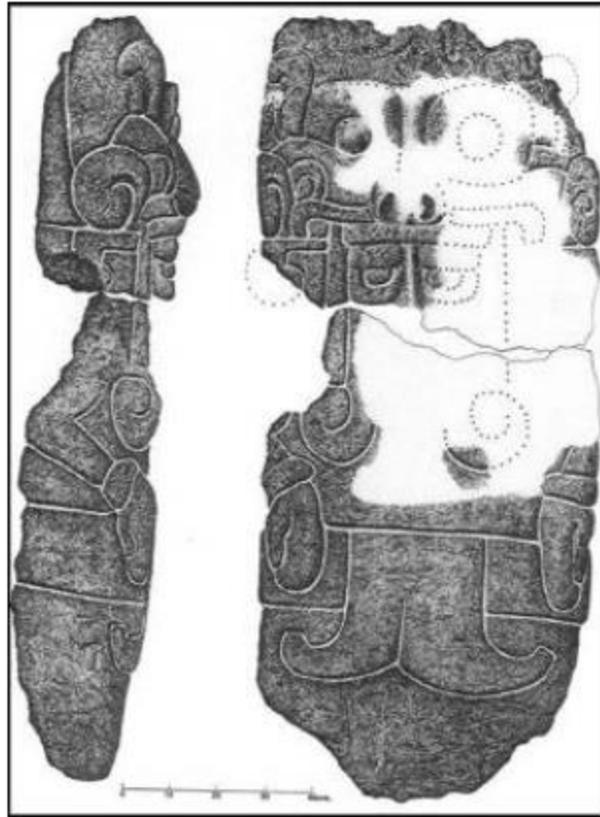


Figure 4.5. Iconographic details of Stela 9 showing an individual in the maw of a composite creature. (after Awe et al. 2009; Courtesy of BVAR).

Excavations Conducted by Ebert at Str. 1, Zopilote 2015

Ebert (Ebert 2017; Ebert and Fox 2016) conducted excavations on Str. 1 to refine the initial chronology established by Cheetham through AMS dating. A total of six carbon dates were recovered from vertical excavations conducted at Str. 1. Additionally, Ebert was able to uncover the ten construction phases mentioned by Cheetham and colleagues (1993) in addition to a plaster floor located above the paleosol layer. The presence of freshwater shell, chert cores and flakes, and utilitarian ceramics, some of them associated with the Cunil ceramic phase, were recovered. Cunil ceramics represent the earliest ceramic type found at Cahal Pech and are associated with the Early Preclassic period (Awe 1992). Ebert (2017) claims that this occupational layer is likely associated with the initial residential occupation of the site. A

Cocoyol Cream ceramic vessel was recovered with a possible kill hole indicating ritual activities may have been taking place.

The AMS dating Ebert performed on carbon samples recovered from excavations at Str. 1 gives insight into the development of the Zopilote Group. The first date is associated with the second floor of ZPL-1st and dates to 355-175 Cal BC where Ebert (2017) claims the construction of limestone platforms began in the Late Preclassic period. These platforms likely housed perishable, wattle and daub structures. At the end of the Late Preclassic period, Str. 1 witnessed another series of construction phases. Three carbon dates were tested from these building episodes yielding a date range of 190-40 Cal BC (Ebert 2017). Furthermore, there were simultaneous building programs being conducted in the Cahal Pech site core during this time period (Awe 1992; Ebert 2017). Two final carbon dates were taken from ZPL-8th and yielded dates of AD 170-330 and Cal AD 230-335 respectively (Ebert 2017). These dates correspond to the Early Classic period and are attributed to the largest construction phases seen at the Zopilote Group thus far. The data collected by Ebert at Str. 1 will be key in assessing the function of Zopilote as a terminus group throughout the site's occupational history.

2015 Excavations at Str. 2 of the Zopilote Group

Excavations conducted on Str. 2 at the Zopilote Group were overseen by Dr. Ebert and I with assistance from BVAR students and workers from the local area. After the humic layer was removed, a large concentration of ceramics was uncovered in addition to some intact architectural features. A wall oriented approximately northwest to southeast abutted into the center of Str. 2 where it met a semi-circular wall feature (Figure 4.6-4.7). This architectural feature is associated with the original building phase of the structure. However, there also was a linear wall feature that ran the width of the excavation unit that met the aforementioned wall. This linear wall feature was one to two courses high and was built over the terminal deposit itself

with sherds emanating out of the side of the wall (Figure 4.8). This wall likely is the result of post-abandonment construction activities engineered by the inhabitants who did not vacate the periphery after the collapse of Cahal Pech during the Terminal Classic period. The wall may have been used to delineate private space as there was also a circular niche discovered that may have been used as a receptacle for offerings or a location where an *incensario* vessel may have been placed (Figure 4.9). The ceramic sherds that emanate from this wall could be due to two circumstances. Firstly, the terminal deposit may have already been in place before the construction of the wall. Secondly, the sherds protruding from the wall may be the result of natural processes, such as bioturbation, that eventually caused the binding agent of the wall to decompose and allowed the ceramic sherds to through the crevices of the limestone blocks. I propose that the latter situation is likely the cause of this scenario.



Figure 4.6. Photograph of wall feature found during 2015 excavations. (Photo by Claire Ebert; Courtesy of BVAR).

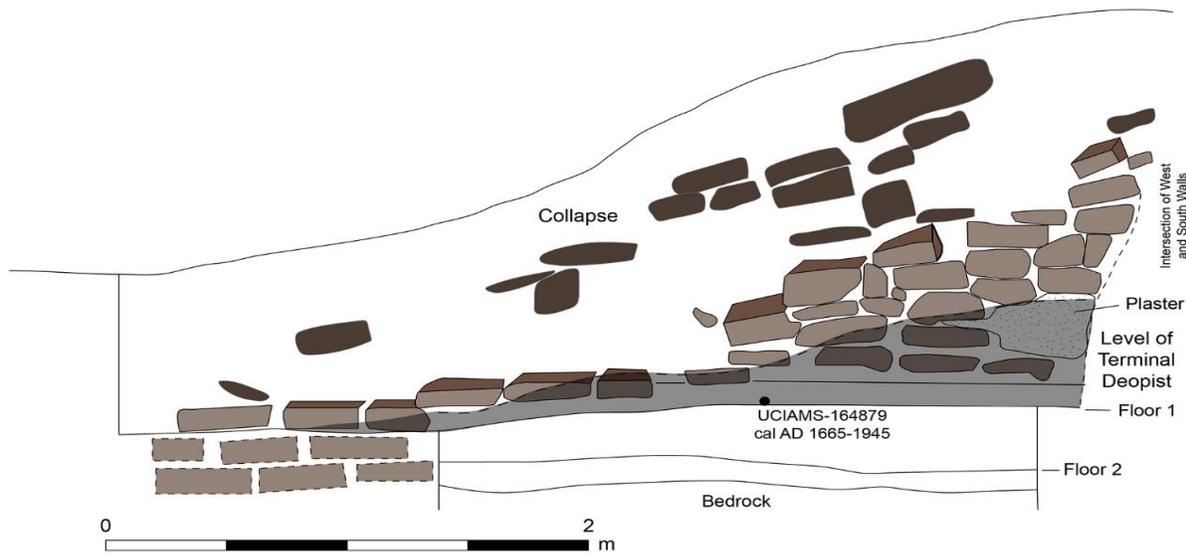


Figure 4.7. Profile drawing of wall feature found during 2015 field excavations. (Drawing by Claire Ebert; Courtesy of BVAR).



Figure 4.8. Photo of terminal deposit with linear wall feature transgressing the deposit's surface (Photo by Claire Ebert; courtesy of BVAR).



Figure 4.9. Photo of circular niche feature found during 2015 excavations. (Photo by Claire Ebert; Courtesy of BVAR).

2016 Excavations at Str. 2 of the Zopilote Group

The goal of the 2016 field season was to recover and measure the extent of the terminal deposit found the previous year. Once the looter's fill and humus layer were extracted, the terminal deposit began to manifest itself in addition to some probable post-abandonment architectural features. However, there is a significant probability that the architectural features exposed were likely due to the collapse of the structure rather than being found *in situ*. On the other hand, many of the limestone blocks were oriented in a circular fashion and, therefore, could reflect a wall or hearth-like feature (Figure 4.10-4.11).



Figure 4.10. Photograph of the terminal deposit found during the 2016 field season. There is evidence of collapsed stones oriented into a circular fashion yet it is hard to assess whether this is a cultural feature or just collapse. (Photo by author).

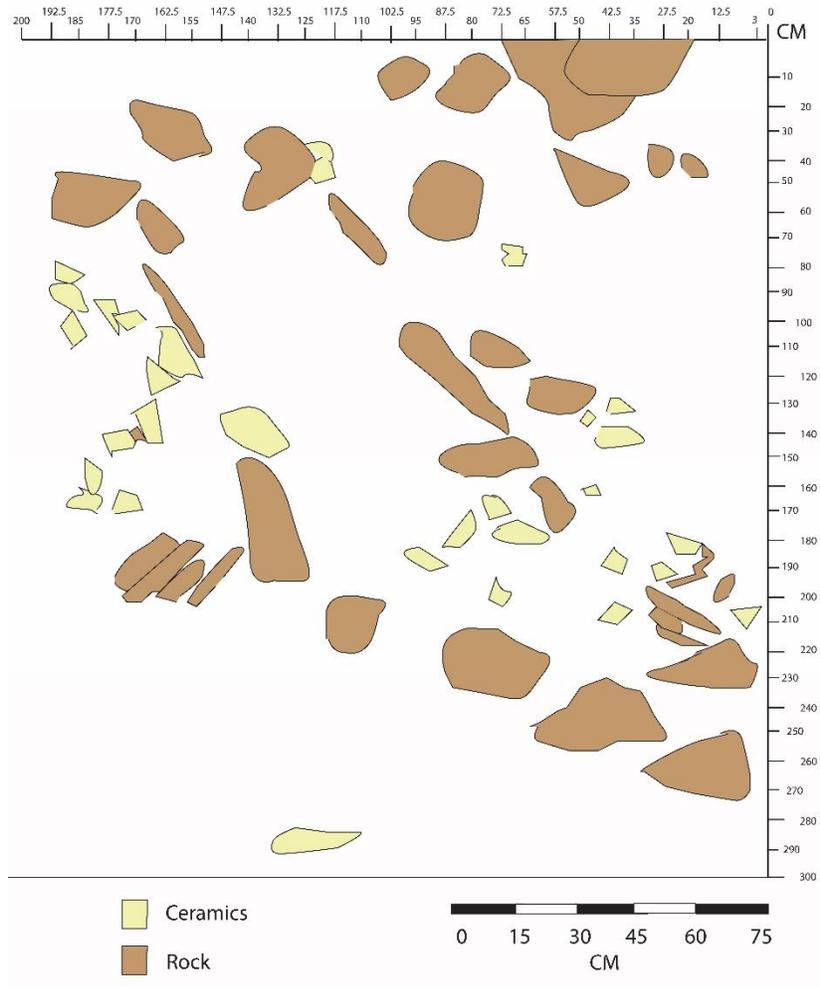


Figure 4.11. Plan map of circular feature found during 2016 field excavations (Drawing by author).

The terminal deposit consisted of numerous ceramic and lithic materials as seen in the previous year. However, in this excavation unit artifacts seemed to be more heavily concentrated perhaps alluding to the depositional process that formed them. It is possible that the artifacts were more densely concentrated on the right side of the western face of Str. 2 and either natural or cultural forces caused the artifactual material to become spread across the left side. If cultural processes, such as ritual sweeping, were occurring than we should see a non-chronological dispersion of carbons samples recovered from the deposit. In total, four carbon samples were

recovered from the deposit at various layers. Furthermore, three additional carbon samples were discovered beneath two floors superimposed under the deposit. Figure 4.12-4.13 illustrates the provenience of where these samples were discovered.



Figure 4.12. Photograph of the southern baulk of ZPL-2-2. There is evidence of matrix layers separating various artifact layers indicating the deposit likely formed during multiple episodes (photo by author).

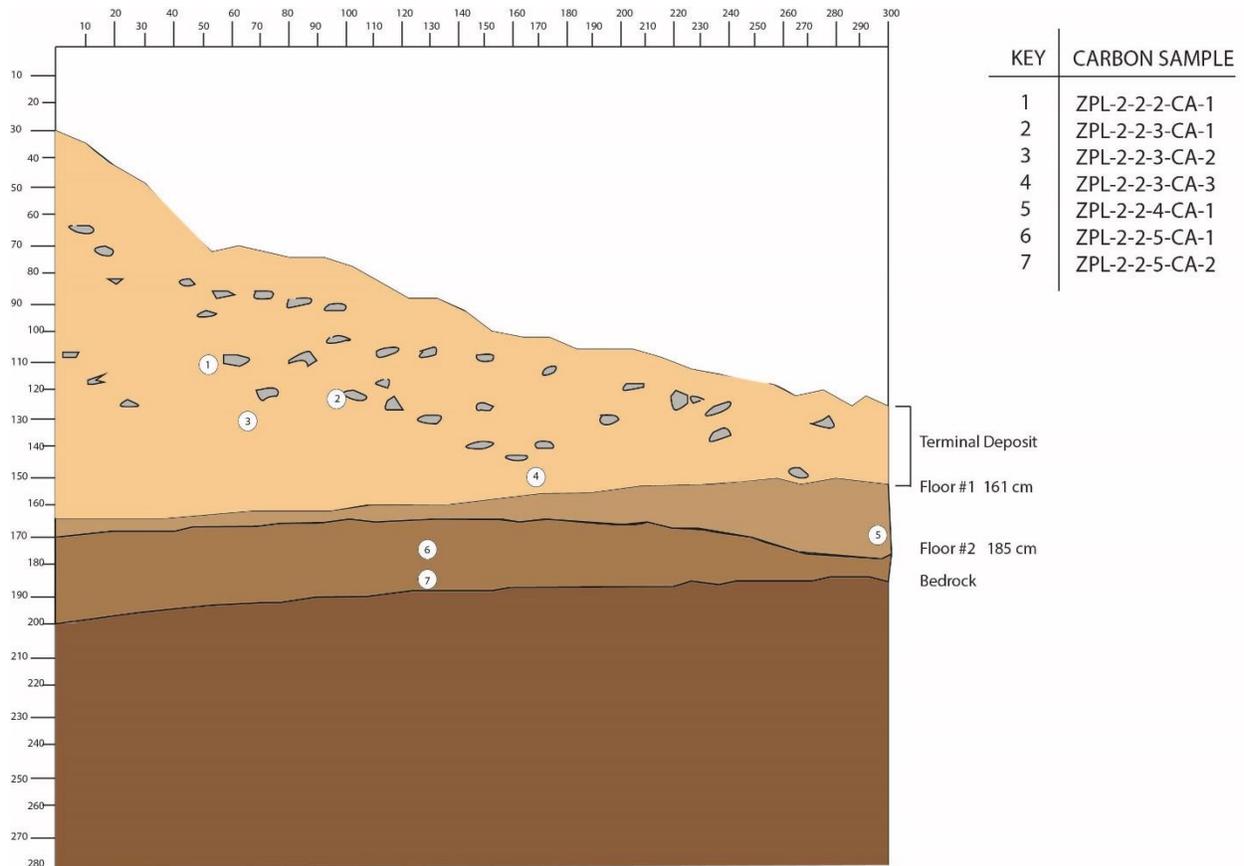


Figure 4.13. Profile drawing of the southern baulk of the excavation unit. Notice there seems to be separation between various artifact layers indicating the deposit likely formed during multiple episodes. (Image by author).

After excavations encountered bedrock, the unit was extended 1x3 m and abutted a ramp-like feature constructed by looting activities (Figure 4.14). This excavation unit represents the thickest concentration of artifacts found thus far. As stated in Chapter 3, the decision was made to take vertical photographs every 15 cm to document the layering and microstratigraphy of the deposit. Microstratigraphy helps archaeologists examine the matrix layers intermixed throughout the deposit to gauge if the deposit formed over multiple episodes. Excavations continued until the first floor was discovered and the decision was made to process and inventory the artifacts already recovered. The following section gives insight into the artifactual materials that were recovered from the deposit.



Figure 4.14. Photo of 1x3 m extension unit performed during 2016 field season (Photo by author).

Artifacts Recovered from the Terminal Deposit found at Str. 2

The terminal deposit found at Str. 2 at the Zopilote Group yielded substantial amounts of artifactual material. Artifact inventories from the 2015-2016 field seasons indicate that approximately 36,662 ceramic sherds were recovered, 4,139 of which were diagnostic. Diagnostic ceramics accounted for 11.3% of the total ceramics recovered from the deposit. Ceramic analysis began by gathering all bags recovered in a single day and then the contents of those bags were sorted into preliminary types, mostly based on temper and rim form. This sorting process would allow for examining the possibility of refitting ceramic vessels that would

condense the overall sherd count. However, as the process continued throughout the field season, a limited number of refits were discovered. This finding gives weight to the idea that the deposit may not be in primary provenience and either bioturbation or some cultural process displace these artifacts from their original positions (Schiffer 1987). There also is the possibility that the ceramics were smashed and sherds flew to different areas of the deposit. Another insight was that numerous amounts of ceramics originally classified as diagnostic were either were too decomposed to be analyzed or were simply not diagnostic in nature. Of the 4,139 sherds that originally classified as diagnostic, 2,586, or 62.5% of the original count were able to be classified.

In all, 23 different ceramic types were identified from the terminal deposit found at Str. 2 at the Zopilote Group (Table 4.2; Figure 4.15-16). Most of these types are from the Spanish Lookout phase which is diagnostic of the Terminal Classic period. Interestingly, the largest ceramic type concentration represented in the deposit is Garbutt Creek Red. Garbutt Creek Red ceramics are incurving, hemispherical bowls that have a rounded, tapered rim. The second largest concentration is Belize Red followed by Mount Maloney. Belize Red is volcanic ash tempered and come in the forms of plates, dishes, bowls, vases, and jars. Mount Maloney Black also are incurving, hemispherical bowls that contain a beveled-in rim. Finally, Dolphin Head Red is the fourth most represented ceramic type found in the deposit. Dolphin Head Red has an out curving rim form but the type's most diagnostic attribute is the paste composition. The paste composition of Dolphin Head Red is orange-brown with either a tan or grey core. Most of these ceramic types are utilitarian in nature.

Table 4.2. Table illustrating the ceramic frequencies from the terminal deposit.

CERAMIC TYPE	CERAMIC VARIETY	CERAMIC PHASE	FREQUENCY	PERCENT
DOLPHIN HEAD RED	DOLPHIN HEAD VARIETY	SPANISH LOOKOUT PHASE	290	11.2
GARBUTT CREEK RED	GARBUTT CREEK VARIETY	SPANISH LOOKOUT PHASE	641	24.8
RUBBER CAMP BROWN	RUBBER CAMP VARIETY	SPANISH LOOKOUT PHASE	5	.2
VACA FALLS RED	VACA FALLS VARIETY	SPANISH LOOKOUT PHASE	4	.2
ROARING CREEK RED	ROARING CREEK VARIETY	SPANISH LOOKOUT PHASE	27	1
MOUNT MALONEY BLACK	MOUNT MALONEY VARIETY	SPANISH LOOKOUT PHASE	465	18
BELIZE RED	BELIZE VARIETY	SPANISH LOOKOUT PHASE	615	23.8
PLATON PUNCTATED INCISED	PLATON VARIETY	SPANISH LOOKOUT PHASE	21	.8
MCRAE IMPRESSED	MCRAE VARIETY	SPANISH LOOKOUT PHASE	28	1
GALLINERO FLUTED	GALLINERO VARIETY	SPANISH LOOKOUT PHASE	2	.0007
PALMAR ORANGE POLYCHROME		SPANISH LOOKOUT PHASE	1	.0003
CHUNHUITZ ORANGE	VARIETY UNSPECIFIED	SPANISH LOOKOUT PHASE	18	.7
XUNANTUNCH BLACK ON ORANGE	VARIETY UNSPECIFIED	SPANISH LOOKOUT PHASE	4	.002
BENQUEVIEJO POLYCHROME	VARIETY UNSPECIFIED	SPANISH LOOKOUT PHASE	140	5.4
CAYO UNSLIPPED	CAYO VARIETY	SPANISH LOOKOUT PHASE	142	5.5
ALEXANDER UNSLIPPED	ALEXANDER VARIETY	SPANISH LOOKOUT PHASE	125	4.8
ALEXANDER UNSLIPPED	CROJA VARIETY	SPANISH LOOKOUT PHASE	1	.0003
HUMES BANK	HUMES BANK VARIETY	SPANISH LOOKOUT PHASE	1	.0003
SAVANA ORANGE	VARIETY UNSPECIFIED	JENNY CREEK PHRASE	8	.3
SAN PEDRO IMPRESSED			1	.0003
MOUNTAIN PINE RED	MOUNTAIN PINE VARIETY	TIGER RUN PHASE	2	.0007
BALANZA BLACK	VARIETY UNSPECIFIED	HERMITAGE PHASE	1	.0003
JOCOTE ORANGE-BROWN	JOCOTE VARIETY	JENNY CREEK PHRASE	3	.17
TECOMATE			1	.0003
UNKNOWN JARS			9	.35
CANAO INCISED			2	.0003
PEDREGAL MODELEO INCENSARIO		SPANISH LOOKOUT PHASE	2	.0003
SPECIAL			18	.7
			2586	100

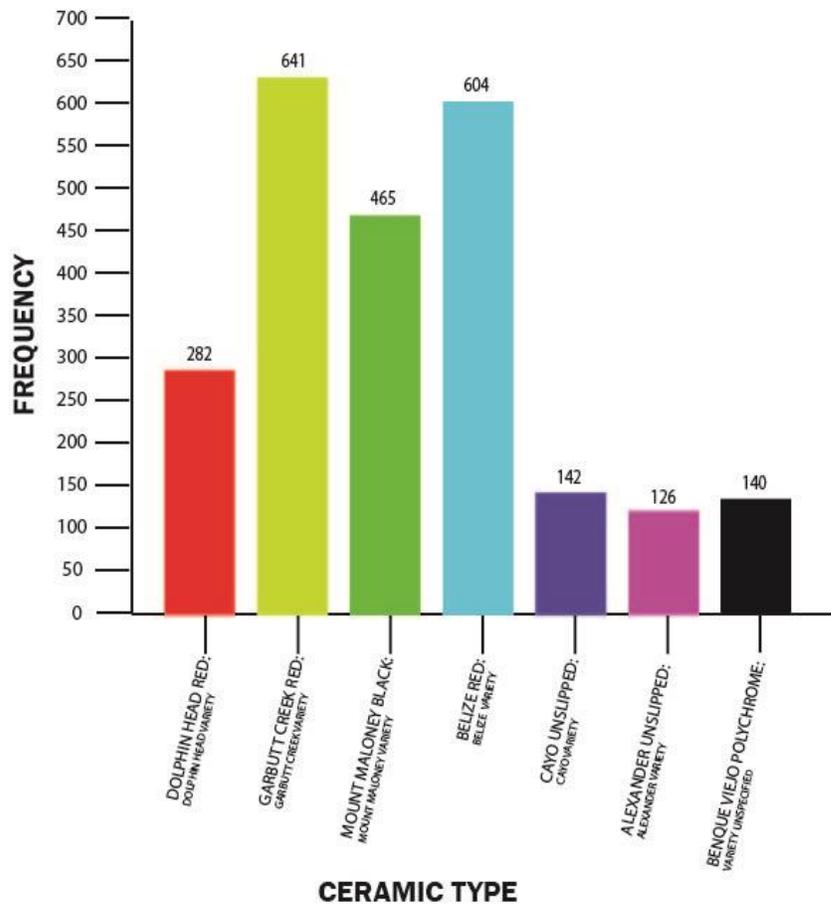


Figure 4.15. Histogram illustrating the seven most represent ceramic types from the terminal deposit (image by author).

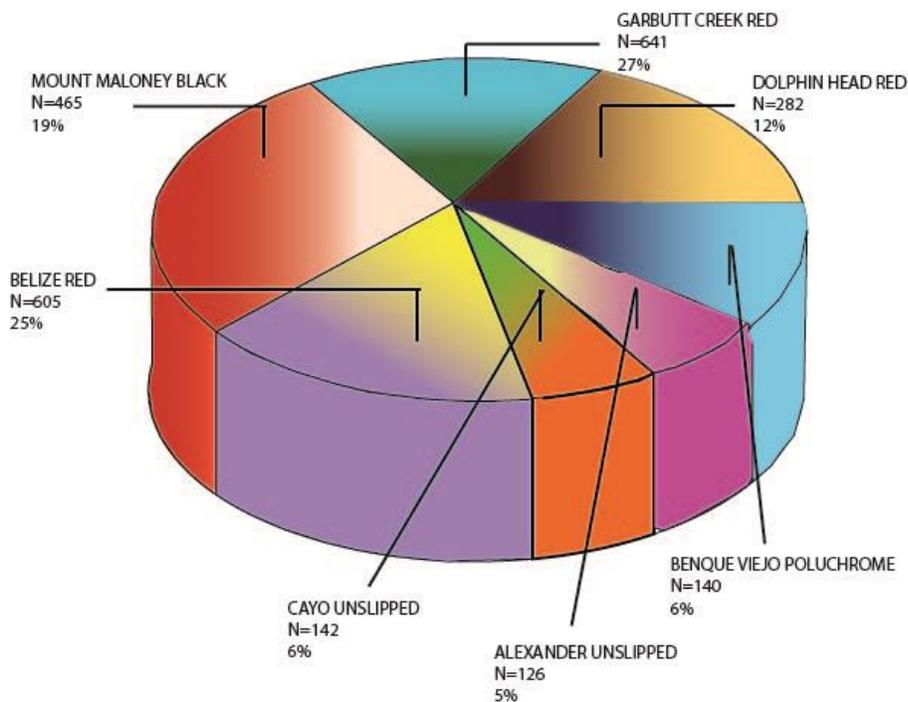


Figure 4.16. Pie chart illustrating the proportion of vessel types found in the deposit (Image by author).

Another important goal of ceramic analysis is to gauge the types of vessel forms represented within the deposit through the application of modal analysis (Figure 4.17-4.18). The various ratios of plates, dishes, bowls, and jars help elucidate what types of cultural behaviors are represented within the deposit. The most predominant vessel form found within the deposit are bowls that account for 60% of the vessel total. There is an even proportion of dishes and jars that represent 34% of the deposit collectively. Finally, plates only account for 7% of the vessel form total.

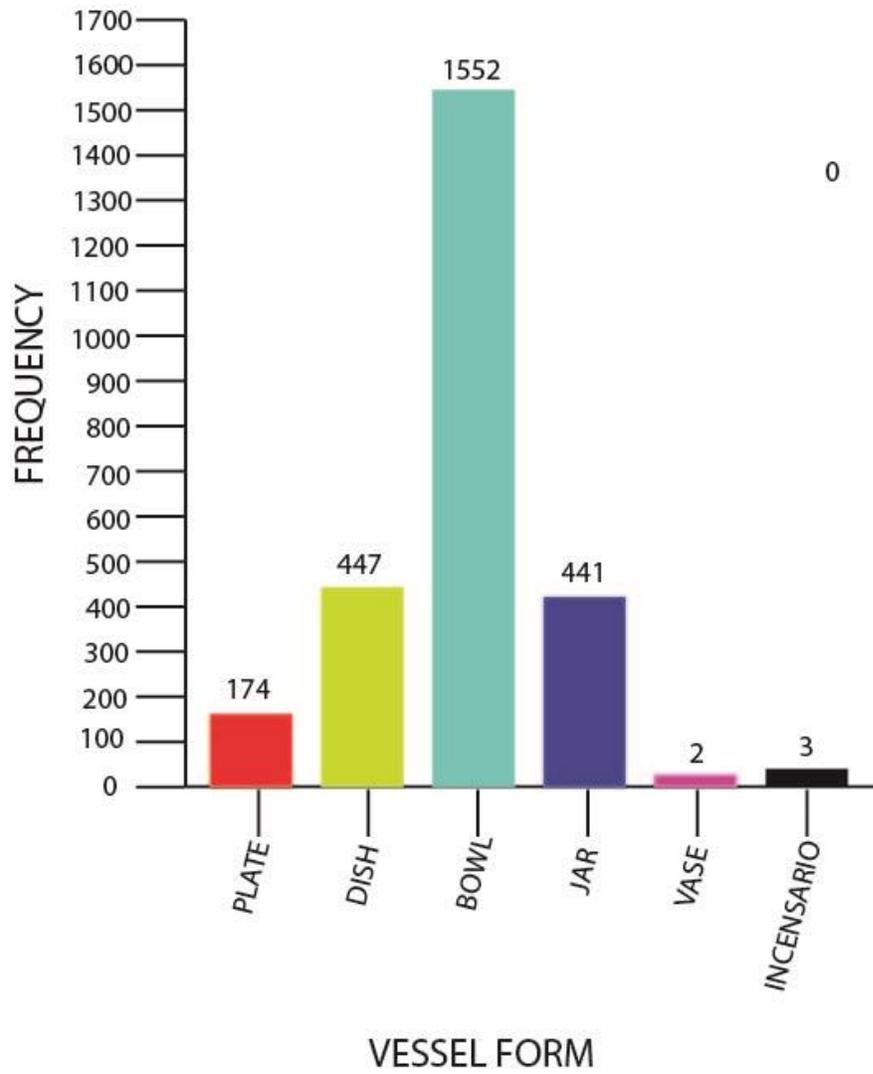


Figure 4.17. Histogram of vessel form frequencies found in the terminal deposit (image by author).

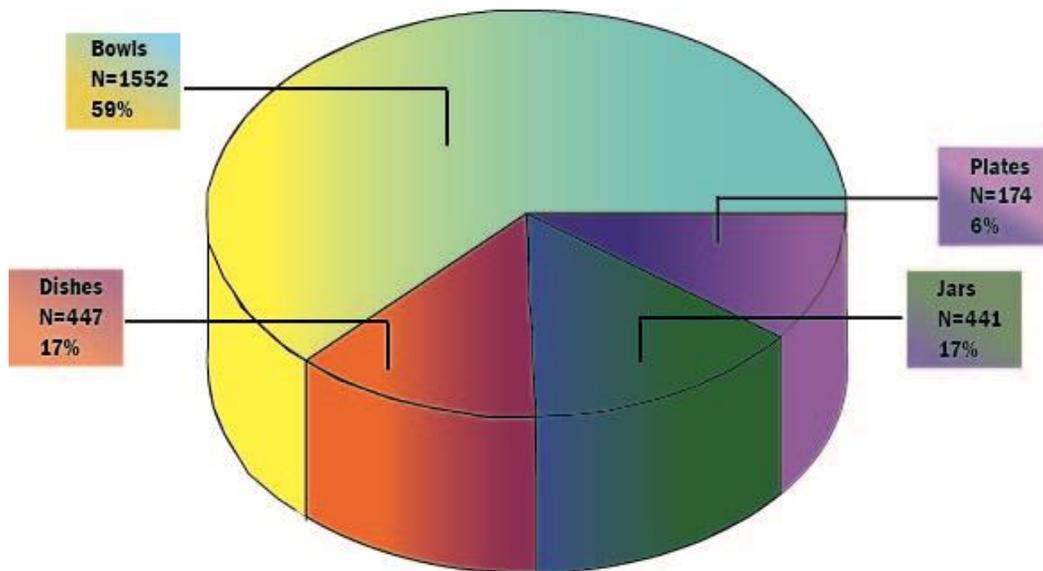


Figure 4.18. Pie chart illustrating vessel form frequencies found in the terminal deposit (image by author).

Lithic Analysis. In total, 371 chert fragments were analyzed with 234 showing evidence of human modification accounting for 62% of the total sample. Figure 4.19 illustrates the frequency of lithic types that were observable from the deposit. Primary and secondary flakes, or those flakes exhibiting evidence of cortex on the exterior surface, account for 56.5% of classifiable lithic materials. There was also evidence of various type of cores found within the deposit. Some of the formal tools found within the deposit include four bifaces, one scraper, and five obsidian prismatic blades. Obsidian artifacts can be used in ritual acts such as bloodletting or in domestic activities, such as processing hides

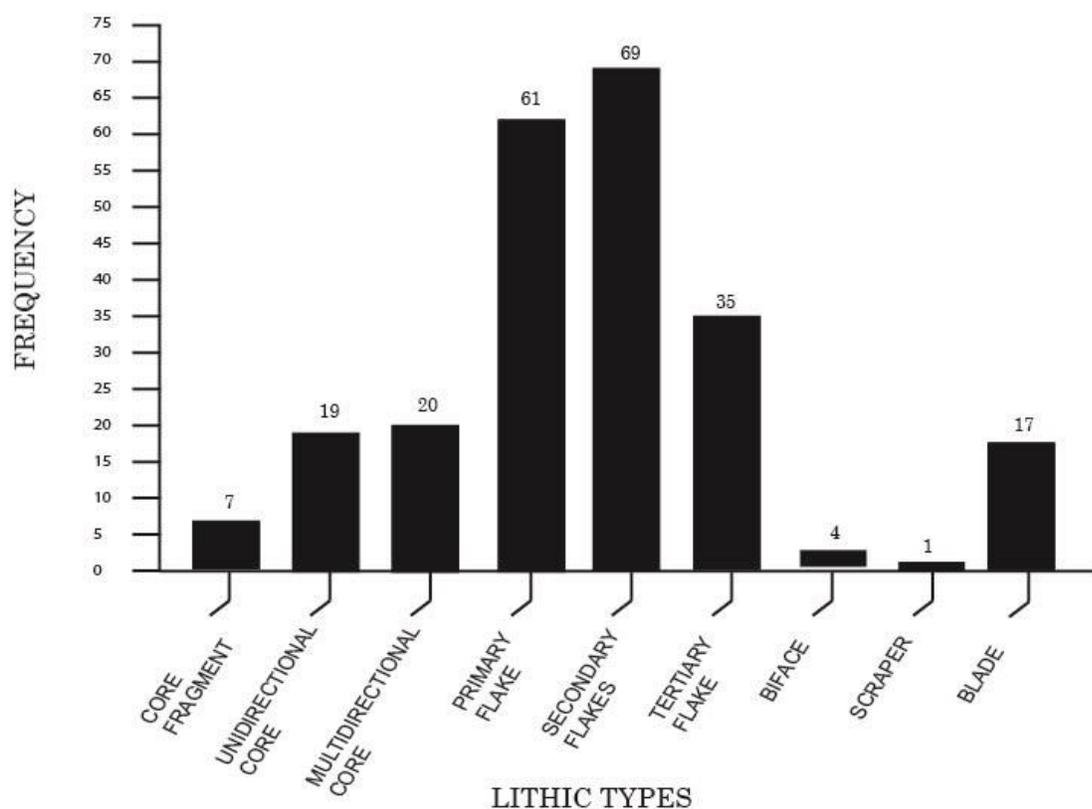


Figure 4.19. Histogram of lithic type frequencies from the terminal deposit (image by author).

Other lithic materials were also found within the deposit. Six quartz fragments were recovered, three of which were unmodified. The fragments that were modified consists of one core fragment and two flakes. Two granite fragments were recovered, one being a fragment of a *metate* the second a fragment of *mano*. The granite fragments represent another example of domestic artifacts found with the deposit as they are used for the preparation of maize and other organic materials. Finally, two slate artifacts were also found. One of these artifacts is a slate fragment that was unmodified whereas the other is a fragment of a handle of a slate wrench. Slate wrenches have been used for ceremonial purposes (Healy et al. 1995). However, only the handle was recovered and no evidence of the headpiece was found, indicating this artifact may

have been ritually terminated and that section may have been taken by the individuals who were using it.

Special Finds. Numerous special finds were recovered from Str. 2. during the 2015-2016 field seasons. The 2015 field season recovered a fragment of a slate wrench, a chert projectile point, and a pedregal modeled *incensario* vessel depicting the Jaguar God of the Underworld (Figure 4.21(a-c)). The Jaguar God of the Underworld is associated with fire and the male dynastic line and could help establish what cultural behaviors were being orchestrated at Str. 2 (Taube 1992). To this day, the Lacandon Maya consider *incensarios* as abstract models of a human being where offerings can be transmitted to the gods for their consumption (McGee 1990). *Incensario* vessels are used for fire rituals associated with deity or ancestor worship.

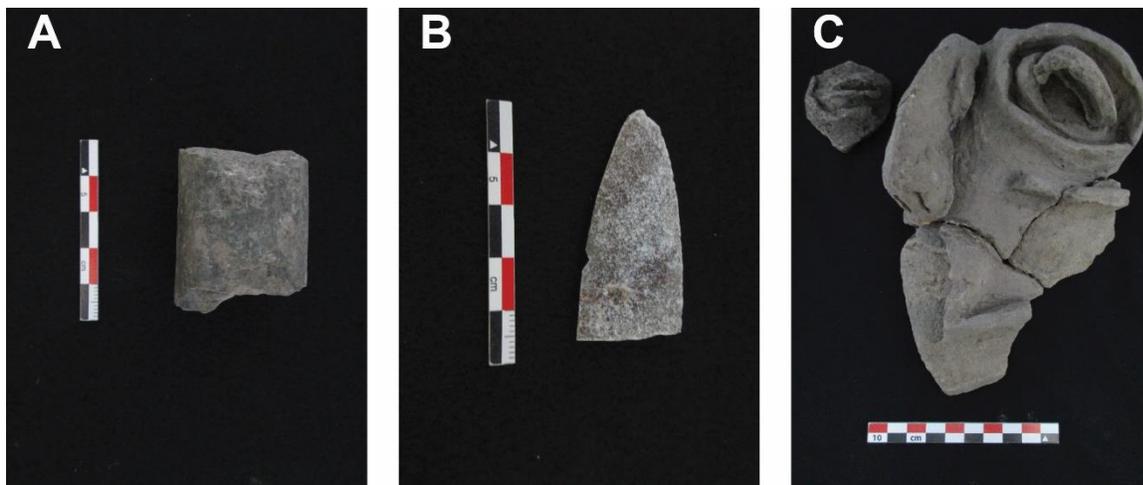


Figure 4.21(a-c). Special finds from the 2015 field season. A) Fragment of a slate wrench. B) Chert projectile point. C) Pedregal modeled *incensario* Fragment (Photos by Claire Ebert).

Some of the special finds that were collected from the deposit in 2016 include a spindle whorl, a partial Xunantunich Black on Orange vessel, a sherd with a probable kill hole, and a vessel with the anthropomorphic face adorning its exterior surface (Figure 4.22 (a-e)). This anthropomorphic figure is reminiscent of god pots used by the Lacandon Maya in modern day Chiapas (McGee 1990). These god pots were thought to be conduits for speaking to the divine

and ancestors. The sherd exhibiting a kill hole indicates that the ritual termination of artifacts was occurring at the site. However, the spindle whorl and the circular ceramic sherd indicate artifacts associated with domestic activities. An informant in Belize told me that the circular ceramic sherd is still used among the modern Maya today to assist in forming and burnishing ceramic vessels. The circular sherd could also be used as a lid for jars (Awe, personal communication 2018). Furthermore, no faunal or human remains were recovered from the deposit. These insights will aid in investigating what activities were being performed at the Zopilote Group giving insight into the site's function.

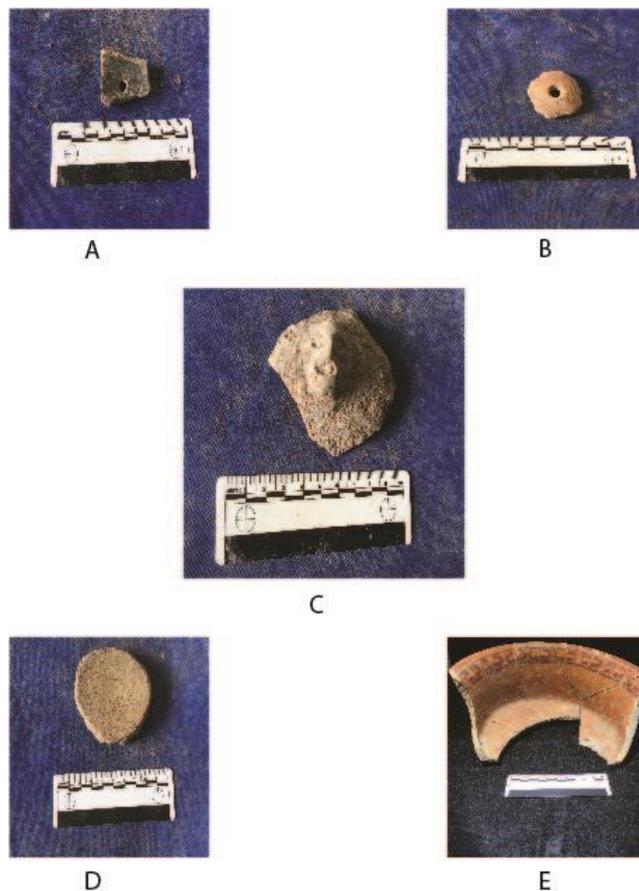


Figure 4.22 (a-e). Special Finds from the 2016 field season. A) Sherd with possible kill hole. B) Spindle whorl. C. Sherd exhibiting an anthropomorphic face. D) Possible lid to a jar or tool used for forming ceramics. E) Fragment of Xunantunich Black on Orange vessel

Conclusion

In this chapter, we have analyzed the archaeological materials and features found at Zopilote over the past two decades by the BVAR project. Construction at the Zopilote Group first occurred during the Middle Preclassic period with the construction of Str. 1, which was continuously rebuilt until the late Classic period. Excavations conducted in the early 1990's by Cheetham and colleagues discovered two vaulted tombs. Tomb 1 consisted of an elite individual with a sacrificial head placed at his feet and numerous amounts of elite paraphernalia found throughout the tomb. Tomb 2 consist of a Late Preclassic stela depicting an individual in the maw of a composite creature with serpent and jaguar imagery consistent with shamanic transformation. Stela 9 was ritually terminated from its original position and interred beneath the base of the northern staircase. Tomb 2 also contains copious amounts of human sacrifice.

In the Terminal Classic period, the epicenter of Cahal Pech witnessed a massive depopulation of inhabitants from the site core and in the surrounding area. However, there were still commoners inhabiting the site core and periphery as there was evidence of post-abandonment activities. A large terminal deposit was found on the western face of Str. 2 containing 36,662 ceramic sherds and 230 modified chert artifacts. Some of the special finds discovered from the deposit include a fragment of a slate wrench, a chert projectile point, *incensario* fragments, a bowl depicting an anthropomorphic face, and artifacts exhibiting kill holes that may suggest ritual termination may have been taking place at the site. There is also a high proportion of bowls, primary flakes, and secondary flakes recovered from the deposit whose importance will be discussed in the preceding chapter to analyze what cultural activities were being conducted at the site and how they relate to the functionality of the Zopilote group.

Chapter 5: Discussion of the Function of the Zopilote Group

This chapter seeks to analyze the archaeological materials found during excavations and determine how these materials reflect what function the Zopilote Group served at Cahal Pech. We began by analyzing the site configuration of the Zopilote Group in relation to the Cahal Pech site core. Next, we analyzed the chronological building sequences at the Zopilote Group in relation to building activities taking place in the site core. Finally, we assess the archaeological features found during excavations at the Zopilote Group and investigate how these materials give insight into what cultural activities were taking place at the site. The goal of this research is to assess if the Zopilote Group served an economic, religious, or political function and how this functionality may have changed throughout the occupational history of the site.

Causeway Systems and Terminus Groups

The first stage in analyzing the function of the Zopilote Group is understanding the function and symbology of causeway-termini relationships. Numerous archaeologists suggest that, at the most basic level, sacbe systems control the movement of people, ideas, and material goods from one locality to another (Chase and Chase 2001; Chase and Chase 2003; Chase et al. 2015; Cobos and Winemiller 2001; Dahlin et al. 2007; Schwake 2000; Shaw 2008). The two main types of sacbe systems are intersite and intrasite causeway systems. Intersite causeways are usually longer and link larger polities together (Cheetham 2004; Schwake 2000; Shaw 2008). Schwake (2000) claims that intersite causeways likely represent hierarchical social relationships between two distant centers. Intrasite causeways, in contrast, are systems that link the epicenters of major sites to other administrative, residential, or religious architectural nodes that are located in their periphery (Schwake 2000). The relationship between Cahal Pech and the Zopilote Group would be classified as an intrasite causeway system as the group is located only .75 km south of

the Cahal Pech site core. Furthermore, there is no evidence of residential structures associated with the Zopilote Group's monumental architecture indicating that either administrative or religious activities were likely occurring at the site.

Motives for Site Configuration

Researchers have claimed that the configurations of causeway-termini groups are predicated on cosmological layouts, are built according to the topographic features of the area, or were built to produce ideological messages (Ashmore 1992; Cheetham 2004; Chase et al. 2015; Craig 2009). Knapp and Ashmore (1999) assert that the built environment is phenomenologically experienced and perceived by the inhabitants of an area. The authors suggest three forms of landscape are experienced by social agents: the constructed landscape, the conceptualized landscape, and the ideational landscape (Knapp and Ashmore 1999; Craig 2009). Constructed landscapes embody a shared ideology, conceptual landscapes contain natural features that are endowed with sacred properties, and ideational landscapes construct messages about "morality, lineage, history, and the sacred" (Craig 2009: 260). The following sections will highlight the different motives for site layouts proposed by Ashmore (1991).

Cosmological Layout. Cosmological implications for site configurations are both constructed and ideational landscapes based on a shared worldview. Ashmore (1991) suggests site planning principles are based on cardinal directions with a heavy emphasis on dualism. Site cores are oriented north to south with the addition of east and west architectural complexes that are symbolic of the pathways of the sun. As stated previously, the Maya perceived their universe as vertically tripartite, or three layered, and horizontally quadripartite. The vertical layers include the underworld, the earthen realm, and the heavens. These were interconnected through the great ceiba tree that stood at the center of the earth. The quadripartite division of the earth is based on the passage of the sun where the sun rises in the east, reaches its pinnacle in the north,

symbolically dies in the west and enters the underworld, and resurrects the next day (Ashmore 1991). The *k'uhul ahau*, a term associated with divine kings, associated themselves with the sun due to the sun's regenerative nature. For this reason, rulers were often interred in eastern triadic shrines or temples in major centers and were expected, like the sun, to resurrect following their descent into the underworld.

Ashmore (1991) claims that causeways emphasize connections between architectural elements that highlight the symbolic unity of the whole layout based on cosmological principles. Engineering the built landscape based on cosmological principles reinforces and legitimizes political claims to power of rulers by symbolically placing themselves as the center of the universe that is acknowledged by agents occupying lower levels of the social hierarchy (Ashmore 1991; Diaz 2013). Ashmore (1991; 1992) developed a template that defines the characteristics of an architectural group based on cosmological directionality. Firstly, there is a strong north-south axis. Secondly, paired functions for construction and spaces at the north and south ends of that axis. North is associated with the place where the ancestors reside, sometimes referred to as flower mountain, in addition to representing the sun's position at its zenith (Taube 2004). The ruling elite would attempt to symbolically associate themselves with the sun to emphasize their positions as central to cosmic balance. Thirdly, the eastern and western units form a triangle with the northern construction. These positions represent the sun at various positions of the day. The triangular orientation possibly symbolizes the regenerative property of the sun as it travels this daily, cyclical pattern. Fourthly, the presence of ballcourts acts as a mediatory between the north and south. Ballcourts symbolize death, sacrifice, and regeneration in addition to being associated with the underworld (Stone and Zender 2011). Finally, the Maya used causeways to underscore the linkage between various elements to stress the symbolic

coherence of the whole. Schwake (2000: 7) claims “that peripheral features take on the status and importance of their correspondents in the site core, because on the physical link which the *sacbeob* provide.” Therefore, the connection of the Zopilote Group with the Cahal Pech site core reflects a symbolic message embedded within the landscape. If archaeologist were to view the connection of Zopilote and Cahal Pech through a cosmological framework, Zopilote would be associated with the south and therefore the underworld whereas Cahal Pech would be associated with the north symbolizing the residences of elite ancestors. Elites would position themselves as the center of this cosmogram in order to convey political messages to legitimize their right to rule.

Advantageous Topographical Setting.

The location of terminus groups has also been suggested to be based on more practical concerns, such as advantageous topographic locations. Since monumental architecture and elevated plazas are usually found at terminus groups, the landscape should be relatively flat and in close association with building resources, such as limestone quarries. The use of limestone for engineering monumental architecture could also account for the presence of large reservoirs found at terminus groups that formed after limestone was quarried from these areas. Furthermore, *sacbe* systems may have been built according to features in the natural landscape. These features either would be bypassed or modified to minimize the labor investment of the *sacbe*'s construction. If a site wanted to incorporate other architectural groups for activities, such as marketplaces, there would be no evidence of symbolic directionality in the site plans, indicating a more utilitarian function.

Ideational Landscapes of Political Symbolism.

Some terminus groups may predate the construction of their corresponding site cores and were later incorporated into the site layout to produce ideological messages (Cheetham 2004). The reasons for constructing a causeway to

link a site core to preexisting, non-residential groups may be for political purposes. For example, Awe and colleagues (2009) suggest Cahal Pech incorporated Zopilote into the site layout based on the ritual behavior associated with Stela 9. Awe and colleagues (2009) state that “the fact that the stela was venerated for several 100 years, as indicated by its heavy wear, and that it was ritually deposited in a tomb at the Zopilote Group, suggest that the individual portrayed on Stela 9 may have been an important member of the local dynasty, possibly one of the Preclassic founders of the ruling Cahal Pech lineage.” Str. 1 at the Zopilote group predates the construction of the Martinez causeway and correlates with construction projects conducted within the Cahal Pech site core. The question becomes why did the Maya invest labor and resources to construct a causeway to connect the Cahal Pech civil-ceremonial center with the Zopilote Group? The answer may lie with the symbolic and economic significance of causeways within ancient Maya cosmology. Shaw (2008) asserts that roadway may serve as a political mechanism to exert power, control, or ownership of territory. Roads allow for the movement of armies and delineate property boundaries.

Site Configuration at Cahal Pech

Excavations at the Zopilote Group indicate that the architectural complex was established during the Middle Preclassic period in conjunction with the simultaneous erection of monumental architecture within the Cahal Pech site core. During Late Preclassic times, both the site core and Zopilote witness further construction activity in the form of large, terraced, special function buildings (Awe 1992; Ebert 2017). This type of monumental architecture reflects elite sanctioned building projects that were likely associated with the increasing affluence and political stature of the site’s rulers. Also occurring during the Late Preclassic period was the construction of the Martinez causeway that physically connected the site core of Cahal Pech with the Zopilote Group. According to sacbe configurations proposed by Shaw (2008), the

relationship between the Zopilote Group and the Cahal Pech site core reflects an intrasite causeway system laid out in a linear configuration. Linear sacbe systems are non-hierarchical and in this case, likely demonstrates the symbolic connection between the elite residing in the epicenter with the dynastic founding of Cahal Pech (Awe et al. 2009; Shaw 2008). As the Martinez causeway was not part of the initial site layout of Cahal Pech, the causeway-terminal relationship with the site core does not support Ashmore's (1991) concept of sites being developed in accordance with cosmological principles based on directionality. Rather, since the Zopilote Group contains the only evidence of a carved stela found at Cahal Pech whose iconography may reflect an individual associated with the founding dynastic lineage, the elites residing in the site core likely constructed the causeway system connecting the two groups to produce ideological messages embedded within the built environment. These ideological messages likely functioned to legitimize the rulership of elites residing in the site core who would travel, along with other inhabitants of the area, along the Martinez causeway to perform public ceremonies at the Zopilote Group. Therefore, during the latter part of the Preclassic period, the Zopilote Group likely served a politico-religious function.

During the Late Classic period, Zopilote experienced another series of activities. Stela 9 was ritually terminated from its original position and encased beneath the base of the northern terminal staircase. Intensive amounts of human sacrifice were evident within the vaulted chamber including 200 hemispherical bowls containing approximately 250 human phalanges, the remains of at least two infants, and the presence of 39 mandible incisors (Awe et al. 2009; Cheetham 2004). A second burial was discovered with numerous grave goods and a sacrificial head placed on a dish. Some of the grave goods included numerous objects of jade and marine shell highlighting the elite status of the individual. This tomb was discovered beneath the upper

half of the northern terminal staircase. If the individual was aware of the placement of the terminated stela at the base of Str. 1, the placement of his tomb may indicate an attempt for that individual to aggrandize his status by establishing a symbolic connection between himself and the founding lineage of Cahal Pech (Awe et. a. 2009). This symbolic connection is facilitated by the importance of the Zopilote Group as a ritual center as there is evidence of ritual paraphernalia and mass amounts of burning found on the northern staircase. Lohse (2007) claims the performance (including use of material symbols) of ritual should occupy a central place in study not just of belief systems, but also of the constitution of relations and processes of enculturation based on sets of knowledge that are passed on or reaffirmed from person to person or from one generation to the next. If Zopilote was utilized for generations by the elite who were conducting public rituals to legitimize their status, then the landscape itself is embedded with social and ideological knowledge that individuals can draw upon to demonstrate their association with the dynastic lineage of Cahal Pech. Furthermore, the internment of Stela 9 and the elite male found in Tomb 2 indicates that Str. 1, in the Late Classic period, became a funerary mound symbolic of the dwelling place of ancestors. Evidence of large amounts of ash on the terminal staircase of the structure indicates fire offerings were being performed at the site, likely to appease the ancestors interred within Str. 1, to act on the behalf of the living to the gods to bring benevolent favors, such as rains, in times of social crisis.

Post-Abandonment Activities During the Terminal Classic Period at the Zopilote Group

The Terminal Classic period is characterized by the depopulation of sites throughout the central Maya Lowlands between the period of AD 600-900. Numerous hypotheses have been posited regarding the factors contributing to the collapse of these centers. Some of these factors include overpopulation, subsistence stress, climate change, warfare, intra-elite rivalry, competition for trade routes and resources, and emic concepts of cyclical fatalism, or the *may*

cycle (Chase and Chase 2007; Hoggarth 2012; Morris et al. 2007; Sharer 1977). However, not all sites succumbed to total abandonment as indicated by evidence of post-abandonment occupation within their site cores and periphery. Evidence of post-abandonment activities has been found at the Zopilote Group in the form of a large, terminal deposit found at the western face of Str. 2. As state previously, terminal deposits are large, surficial artifactual deposits found in the corners of plazas, on the surface of staircases, and in abandoned rooms (Ebert and Fox 2016). Numerous types of artifacts, including ceramics, lithics, faunal remains, human remains, and other special finds can be found within these deposits. Awe (2012; Hoggarth et al. 2016) claims that terminal deposits are likely associated with post-abandonment rituals performed by the population that may have remained or returned to the site. Archaeologists suggest numerous other theories regarding the cultural behaviors that led to the formation of these large deposits. These theories include attributing terminal deposits with middens, defacto refuse, termination/dedication rituals, desecration rituals ritual feasting, and ancestral reverence (Chase and Chase 2007; Sullivan et al.2013; Stanton et al. 2008, Chapman 2005). The following section gives information on the material correlates associated with theories regarding terminal deposits and how these correlates reflect the cultural activities that were being orchestrated at Str. 2. However, it should be noted that these hypothesized functions are not mutually exclusive categories as some have sufficient overlap with one another. For example, McAnany (1995: 8) claims that “feasting, like other Maya rituals centered around ancestor worship, legitimized status and rights to lands and property through repetitive social performances and oral history.” However, ancestor worship can occur without feasting events. Furthermore, there is overlap between termination rituals and desecration rituals where the key in deciphering which cultural

action is taking place is by analyzing the motives involved through analysis of the artifactual material found within specific contexts.

Middens and Defacto Refuse. One of the first hypotheses regarding the cultural behaviors that terminal deposits are associated with are domestic midden or deface refuse. Domestic middens should exhibit little visible artifactual patterning and likely accumulated over a period of time. Schiffer (1987) claims that cultural processes leave items in systemic context where systemic context refers to an artifact within a behavioral system. Due to the fact middens likely contain numerous remnants of multiple cultural activities that are intermixed, no artifactual patterning should be ascertainable. Stanton and colleagues (2008) support this observation by asserting that “dumping behavior to be [is] extremely variable in regards to the formation, material consistency, and further methods of treatment,” such as burying with soil or burning. The authors further state that there are three discard types associated with artifact disposal. The first discard type is called provisional discard. Provisional discard refers to items that become unusable. The second discard type is called maintenance disposal. Maintenance disposal is associated with cleaning activities that focus on where refuse begins accumulating, especially in hard to reach areas called artifact traps. Finally, the last discard type is called dumping disposal. Dumping disposal is associated with refuse in dump sites within a household compound or at neighboring refuse dumps. Dumping disposal sites would likely accumulate artifacts over time and can be investigated through identifying intermixed matrix and artifact layers superimposed on one another. However, Pagliaro and colleagues (2003) state that context is an important aspect to consider when attributing terminal deposits to middens. Middens are usually located outside the architectural complexes whereas other cultural behaviors, such as termination rituals, occur within the group itself. Yet, due to the sheer size of artifacts found in numerous terminal

deposits, dumping sites were the first scenario that archaeologists attributed to terminal deposits when first discovered throughout history.

Defacto refuse, on the other hand, is associated with materials that were left behind as sites were becoming increasingly abandoned. As with refuse middens, there is little artifactual patterning that can be observed (Stanton et al 2008). Chase and Chase (2007) state that de facto refuse was left in place as sheet refuse that would later be disposed of. However, military conflicts may have occurred causing the inhabitants to flee the center leaving these items in place. Yet, the issue becomes would these individuals, who are supposedly still inhabiting the center, leave this refuse within structures that still could function for habitation? These are the concerns associated with explanations of terminal deposits as being associated with domestic middens or de facto refuse.

The site of Ceren located in El Salvador provides the best evidence of refuse disposal found in the Maya area. A volcanic eruption that occurred during the 6th-7th century buried Ceren under layers of volcanic ash that preserved a number of archaeological features (Pagliaro et al. 2003). The refuse found at Ceren was deposited outside architectural features in portable storage areas. These areas contained large numbers of ceramic sherds that were intact enough to be reused and were found within the structure but no evidence of small, unusable sherds was found. Pagliaro and colleagues (2003) assert that this likely due to post-depositional activities such as ritual sweeping or the smaller artifacts being caught in artifact traps (Schiffer 1987). Furthermore, middens were found adjacent to structures but never in the structure itself indicating different depositional activities were occurring.

Dedication/Termination Rituals.

Some archaeologists suggest that terminal deposits reflect dedication or termination rituals performed by the ancient Maya. Terminal deposits are

thought to be intertwined with Maya cosmological beliefs and practices. The Maya view the natural and built environment to be endowed with sacred energies, or *ch'ul*, that give life to these inanimate objects (Taube 2004). Houk and Zaro (2011) assert that this cosmological worldview is associated with ritually engineering. “Ritual engineering refer[s] to the calculated manipulation and integration of ritual features across the built environment” (Houk and Zaro 2011: 187). Dedication rituals associated with structures seek to endow that structure with life whereas termination rituals seek to “ritually kill” those energies. In many instances, dedication caches usually involve intact artifactual materials that are deposited beneath subsequent architectural phases whereas termination rituals usually occupy the surface and contain numerous smashed artifacts. As symbolic archaeology suggests, the symbolic meaning of the artifacts is thus not entirely arbitrary but bounded with specific contexts (Hodder 1995). A contrast can be seen when comparing ritual to utilitarian contexts, such as middens, as middens are located usually outside architectural groups. That is why the totality of the environment, both built and natural, in correlation with established archaeological correlates for certain cultural behaviors must be considered to test the accuracy of these hypotheses.

A good example of a dedication ritual is a cache that was discovered at the base of Structure A-3 at Xunantunich (Sullivan 2017). Excavations conducted by Awe and Santasilia discovered a cache below the western base of Structure A-3 consisting of nine chert and nine obsidian eccentrics. Sullivan (2017) argues that the eccentrics represent zoomorphic representations of scorpions, snakes, spiders, and centipedes in addition to crescent and serrated points. A quadripartite disk was also discovered exemplifying the Mayas’ cosmological perception of their world oriented in the four cardinal directions. The entire cache was purposely laid out a fashion representing a cosmogram with elements representative of the *axis mundi* in

addition to elements associated with the heavens, earth, and the underworld (Sullivan 2017). This eccentric cache was used to endow Structure A-3 with supernatural life forces that animate the structure with symbolic power

Termination rituals seek to ritually destroy this animistic power contained within a structure to signify the structure's disuse. In contrast to dedication rituals, such as those found at Xunantunich, termination rituals consist of high concentrations of purposefully broken artifacts. Examples of termination rituals have been found throughout the Maya area and have been associated with site abandonment. The "abandonment of houses in Mesoamerica involves pulling down one or more corner posts, and often the roof, usually accompanied by copal incense purification, prayers, and other offerings" (Stanton et al. 2008: 236). These offerings include smashed ceramic vessels, broken figurines, and other ritually terminated artifacts near or within abandoned structures.

Ritual Feasting. Ritual feasting is another conclusion archaeologists have posited concerning the meaning of terminal deposits. Feasting is a political tool used by aggrandizing elite to gain favor with the inhabitants and establish ties with other elites from foreign polities. LeCount (2001: 953) claims "provisioning abundant food and drink at public gatherings bolsters partisan loyalty and crafts a strong group image critical in maintaining civil power." Chapman (2006) asserts the context in which ritual feasting usually occurs is near ritual structures exhibiting remnants of faunal remains and evidence of burning. Instead of burning being associated with ritual in this context, the fire clouding is liking associated with the process of cooking. There is also a high probability of elite ceramic wares present within the deposits either to exalt an elite's status or given as a gift to form an alliance with other elites. Due to the presence of faunal remains and elite wares, Hoggarth and colleagues (2016) claim that service

and consumption/presentation of food were primary activities taking place at a feasting event. Therefore, ceramic analysis should indicate relatively equal proportions of serving and cooking vessels typically found at a feasting event in association with faunal remains. Cooking vessels include large bowls and jars associated with soaking, mixing, boiling, and toasting. Serving vessels include vases for drinking, plates, and dishes for serving food such as tamales, and small bowls that contain aqueous foods such as atole (LeCount 2001). Unlike middens, feasting activities should have one depositional episode indicating these activities happened during one event.

Desecration Rituals. The artifact correlates for desecration rituals are relatively similar to termination rituals. Both deposits have smashed artifacts and sometimes evidence of the defacement of architectural features. The differences are the motives the population has in conducting these rituals. Pagliaro and colleagues (2003) claim that desecration termination rituals are the result of the deliberate destruction and manipulation of material culture to destroy the supernatural power of a defeated community or faction. This destruction could be the result of competing elite attempting to legitimize their power or the result of invasions by foreign polities. However, if warfare did indeed occur one would expect to find evidence of projectile points, human remains, and the defacement of any elite paraphernalia. Furthermore, there would also be evidence of burning and even the deliberate exhumation of elite burials to destroy the energy of the dynastic lineage of the elite ruler under attack. Pagliaro and colleagues (2003) state that desecration rituals attempt to terminate all cycles of life and death invested with all associated artifacts, structures, burials, and so on. This destruction aimed at eliminating objects of ideological prestige and power of the conquered settlement. Therefore, warfare in the Maya

world was not just a physical endeavor but also an assault on the spiritual and collective memory of opposing polities.

Ancestor Worship. Finally, ancestor worship has also been associated with terminal deposits. Ancestors, especially those associated with the founding lineage, are mediators between the people and the gods. Diaz (2013) states that ancestors possess special energies that aid and coexist with the living inhabitants. Contextually, archaeologists expect to find evidence of ancestor worship at shrines, natural features such as caves, and monuments that have extensive occupational history and housed the remains of ancestors whose memory is embedded with the social fabric of the community. The archaeological correlates associated with ancestor worship include evidence of sacrifice, incense burners, vessels that would be used to house offerings, figurines, and other ritual paraphernalia. Incense burners and sculpted figures, such as figurines, are conceived as living entities, a manifestation of the gods and ancestors themselves. This type of ritual is associated with the cult of the dead lineage ceremonies (LeCount et al. 2003). However, there is a vast difference between elite sanctioned rituals versus those conducted at the commoner level. Elites performed public rituals to legitimize their right to rule through forging symbolic connections to royal ancestors. Commoner rituals are more privatized and aimed at placating ancestors associated with their genealogical line. Yet, fire rituals that utilize *incensario* vessels sought to renew the community and household through the activation of sacred spaces (Blackmore 2007). The distinction between elite sanctioned rituals versus commoner rituals will be of great importance when examining the function of Zopilote as a terminus group.

Ancestor veneration has been suggested for the archaeological evidence found at Cluster NE-1 and 3 at the North-East group of the Chan site (Blackmore 2007). Though Blackmore

describes the concentration of the artifacts found at this architectural group as a midden, the artifactual evidence correlate with ancestor worship activities. The artifacts found in these groups include obsidian blades, polychrome vessels, and effigy censer fragments (Blackmore 2007). Since these artifacts were found in a household context and not within the site's major epicenter, the agents likely performing the rituals were commoners or intermediate elites. The artifacts found at the Chan site by Blackmore (2007) correlate with the evidence found at the Zopilote Group, exemplifying how these ritual behaviors can be found on a regional scale.

Interpretations of the Terminal Deposit Found at Zopilote

The artifactual materials and features recovered from the terminal deposit at the Zopilote Group gives insight into the cultural activities practiced by the ancient Maya who inhabited the periphery after the collapse of Cahal Pech. The archaeological correlates of the Zopilote deposit align more with a ritual rather than a utilitarian function. The presence of *incensario* fragments, anthropomorphic effigy vessels, a fragment of a ceremonial slate wrench, and perhaps the obsidian blades are associated with ritual activities. Since this deposit is found above a terminal floor, a dedication ritual can be ruled out as a possible interpretation of the deposit as these are usually cached beneath structures. Furthermore, since *incensario* vessels, especially those depicting the Jaguar God of the Underworld, are associated with ancestor and deity worship, this is likely scenario that resulted in the formation of the deposit. The Lacandon Maya believe that the burning of copal incense symbolizes the feeding of tortillas to the Gods (McGee 1990). The ancestor worship hypothesis is further fortified by the high proportion of bowls found within the deposit. Bowls and high walled dishes can be used as receptacles for offerings, such is the case for the Lacandon Maya of highland Chiapas. McGee (1995: 51) citing Tozzer (1907) states that "the food and drink are administered to the heads of the incense burners on behalf of the god. Posol [actually, atole] and baltse [balche] are placed on the mouths of the figures on the side of

the bowls...whereas the offering of meat of buliwa [ceremonial tamales] is placed on the lip of the brasero with the fingers.” The offering of food and drink ritually appease the ancestors who act as intermediaries between man and the gods. Yet the question remains, who are the agents conducting these rituals at Zopilote and what purpose do these rituals serve?

Contextual analysis of the deposit gives insight into the cultural behaviors that likely resulted in the formation of the deposit. *Incensario* fragments, anthropomorphic effigy vessels, and a high proportion of bowls indicates that ancestor worship likely is taking place. With the Martinez causeway funneling individuals from the site core in addition to the site being accessible to inhabitants residing in the periphery locations, Zopilote may have been the locus of ritual pilgrimage whose ritual significance is embedded within the social memory of commoners residing in the area. Palka (2014) states that pilgrimages occur in times of imbalance, drought, and conflicts. During the Terminal Classic, the Maya lowlands experienced a drought that may have resulted in the abandonment of large civic centers (Ebert 2017). In an effort to promote groups solidarity and seek intervention from the gods to bring rain, the Maya travel to Zopilote to give offerings to ancestors who, in the past memory, are associated with the founding of Cahal Pech. “The ancestors generally are invoked to legitimize, sanctify, and bring order to everyday resistance” (McAnany 1995: 113). In times of drought, the Maya sought divine intervention to aid in agricultural productivity. Agricultural rituals may have been the purpose of the terminal deposit found at Zopilote. The presence of bifaces, *mano* and *metate* fragments, and spindle whorls are all artifacts associated with domestic activities linked to maize cultivation and textile manufacturing. Furthermore, A high proportion of bowls found in the deposit could act as receptacles for offerings for the gods and ancestors. Food and copal incense could be placed in these bowls and then these vessels would be ritually terminated after the ritual was completed.

Yet, another key insight is the high number of primary and secondary chert flakes found in the deposit. In epigraphic analysis, chert is associated with thunder and lightning (Stone and Zender 2011). The Maya traveling to Zopilote may have struck off these flakes producing a spark along with an aroma reminiscent of gunpowder symbolizing lightening to attract the rains. Today, the Zinacantecos of the Highlands of southeastern Mexico use fireworks in their agricultural rituals to achieve a similar effect (Vogt 1976). Conclusively, Stanton and Magnoni (2008) claim that identity, power, and tradition are founded upon the individual's or societies perception of the past. Therefore, as Str. 1 housed two vaulted tombs, one of which containing a stela perhaps associated with the founding lineage of Cahal Pech, the site of Zopilote functioned as a conduit to contact the ancestors used by the Terminal Classic Maya as the landscape, in accordance with the social memory of its past ritual uses, is symbolically charged with power.

Regional Comparison

. The question becomes, how does the function of the Zopilote Group correlate with other terminus groups in the Maya area? We begin by evaluating examples from the Belize River Valley, then expand to the rest of the Maya Lowlands, and finally the Yucatan Peninsula. Sacbe systems and terminus groups have been found at numerous sites through the Maya area including Xunantunich, Coba-Yaxuna, Ichmul, Calakmul, Cozumul, and others. The examples cited in this research are clear indicators of the variability of causeway functions at different levels of social complexity.

Baking Pot

The site of Baking Pot is located in the Belize River Valley and has been excavated by BVAR for well over a decade. Baking Pot contains a linear causeway system and the structures associated with the site's terminus groups are Structures 209 and 190 (Figure 5.1). Audet (2006)

excavated Structure 209 and 190 at Baking Pot and the evidence she provides alludes to similar functionality of these structures with those found at the Zopilote Group. Structure 209, also aptly named the “ticket booth,” is a circular structure that underwent five construction phases, the earliest of which dates to the Late Preclassic period. Structure 209 is located just outside of Group 1 on the right side of the causeway. A stela without inscription and two altars found on the western side of the structure were discovered. Three primary burials and one secondary burial, most likely a Post Classic interment, was discovered within structure 209. Each burial contains numerous grave goods including polychrome vessels, jade objects, and in the case of female interred within Burial 3, 16 bone hairpins. Burial 3 also contained remnants of a skeleton that was placed on a ceramic dish to the west of the primary burial’s feet. The positioning of human remains towards the feet area of the primary individual interred within the burial is reminiscent of the sacrificial head placed between the feet of the individual in Tomb 1 at Zopilote.

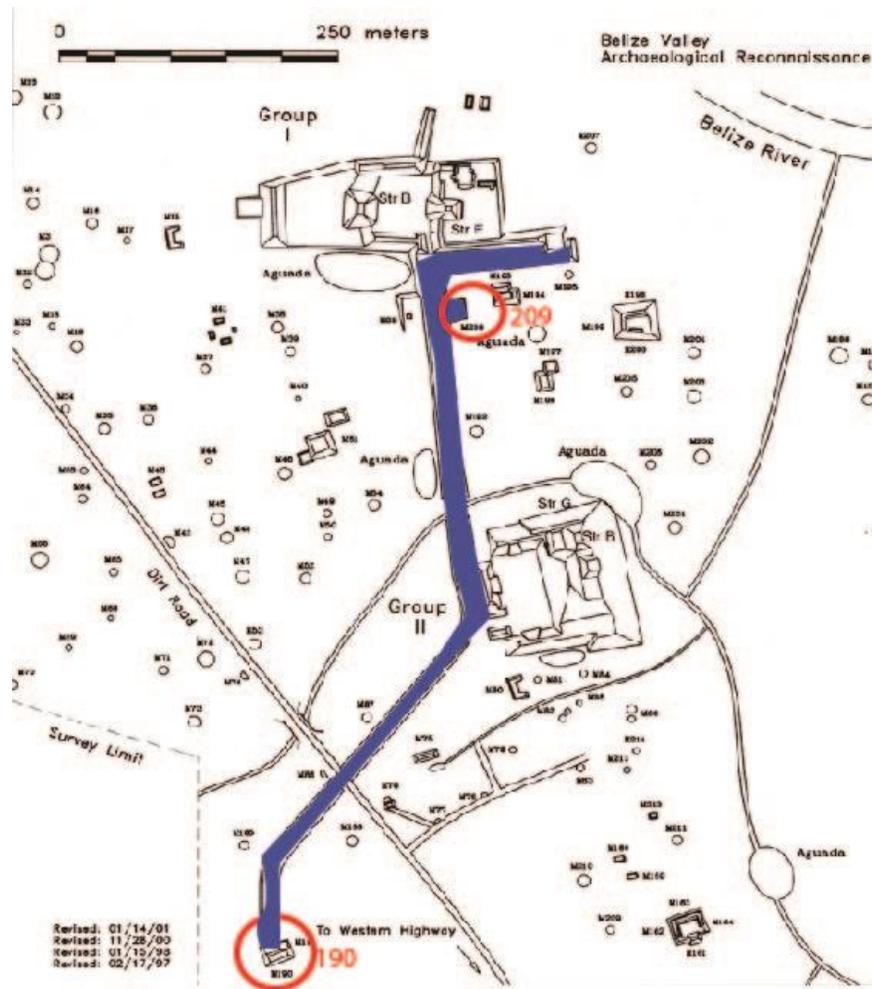


Figure 5.1. Map of Baking Pot (Courtesy of BVAR).

Audet (2006) also excavated Structure 190. This building dates from the Preclassic to the Terminal Classic period and is located where the causeway terminates. Two stelae were discovered, one located on the west side of the building and the butt of another was found on the northern staircase. Stela 1 had been placed in front of the northern face of the structure, had been broken in several pieces, and was near a large ceramic deposit that included vases, bowls, and censers; all which date to the Spanish Lookout Phase. Audet associates this deposit with a termination event indicating the end of the functionality of Structure 190. However, there is a

possibility that this deposit may also indicate a form ancestral reverence as the terminal deposit most likely accumulated over a period of time.

Structure 190 has other material correlates that coincide with evidence found at the Zopilote Group. Firstly, a stela was discovered in a room appended to the western side of the structure. Under the stela, 26 Preclassic censers were discovered which may be a Preclassic equivalent to the *incensario* vessel of the Jaguar God of the Underworld found at the Zopilote Group. Furthermore, an altar was also discovered at Structure 190 at Baking Pot. Within the matrix of the altar, fingerbowls containing at least one dozen sets of fingers were discovered. Finger bowl caching at Baking Pot, though in this case most likely from the Preclassic period, demonstrates that this ritual behavior persisted into the Late Classic period in the Belize River Valley as evidence of this type of caching is found in the “Stela Chamber” at Zopilote. Additionally, four burials and a variety of other ritual deposits were found within this structure. The excavations at the Baking Pot terminus groups indicates the ritual functionality these groups served in the Belize River Valley and highlights the importance of ritual terminations and ancestral reverence in the ancient Maya worldview.

X-Ual-Canil

The site of X-Ual-Cunil is also located in the Cayo district of Western Belize. Schwake (2000) asserts that the Xaman Nab courtyard has an adjacent ballcourt and serves as the initiation point to the Lahkin sacbe. The Lahkin sacbe is roughly 363 meters long and terminates at Te Tun Na, where a low-lying platform with an altar and a stela were located (Figure 5.2). The Lahkin causeway was constructed in the Late Classic period where both X-Ual-Canil and Te Tun Na were already established. Te Tun Na also seems to be a Late Classic construction as Schwake reports the ceramics found at the site correlate to the Terminal Classic period (Spanish Lookout). The Lahkin causeway begins at a ballcourt located adjacent to Xaman Nab. Ballcourts are

associated with transitional locations that are liminal stages that symbolize the linking of the earthen realm and the underworld (Stone and Miller 2011). This physical linkage of architectural groups that were already established through the construction of the Lahkin sacbe is similar to the case of Zopilote. Furthermore, the most western edge of Cahal Pech also contains a ballcourt that is in the vicinity of where the Martinez Sacbe terminates. Therefore, there likely is a political or religious function the causeway facilitated at X-Ual-Cunil. Furthermore, the presence of an altar and stela further correlate with evidence found at Zopilote and Baking Pot as serving a politico-ritual function.

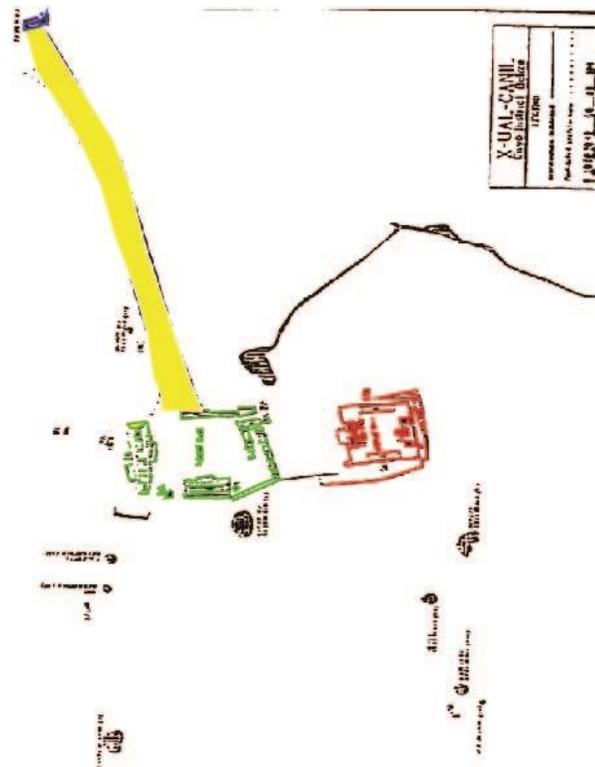


Figure 5.2. Map of X-Ual-Cunil (After Schwake 2000).

However, Schwake (2000) found no evidence of the internment of ancestors under the platform floor leading her to conclude that Te Tun Na functioned as an administrative center for the management of water control and agricultural yields. Yet, at the same time, the site also has a religious component as there is evidence of an altar and a stela. Schwake (2000) claims the stela

were transported from their original position and became objects of veneration. Even though Te Tun Na lacks monumental architecture, it is believed that public ceremonies and ritual processions were being performed at the site. However, there is no evidence of ritual caches found in the context of the altar and the stela. Schwake (2000) concludes by stating the Lahkin causeway system “can be understood through a contextual discussion of their [features] placement within the realm of ritual ceremony and procession devoted to agriculture and agricultural fertility.” The importance of this ritual likely escalated in the Terminal Classic as there is sufficient evidence of a drought occurring during this time. The Maya may have viewed the landscape of Te Tun Na as embedded with symbolic importance that individuals may have traveled to in order to give offerings and perform rituals as seen at the Zopilote Group.

Caracol

The site of Caracol is located in the Maya mountains and is considered a primate center covering at least 200 km² area with a larger population than the sites discussed thus far. Caracol demonstrates a different interpretation of the use of terminus groups in the Maya Lowlands. Chase and colleagues (2015) attribute the use of a number of these terminus groups as marketplaces where economic activities outside of the site core occurred. Dahlin and colleagues (2007) state that ancient marketplaces can be identified through analyzing chemical residues in soils from open and easily accessible spaces in and about Maya cities. Researchers are looking for high levels of phosphorous, zinc, and iron that may indicate anthropomorphic activities. Caracol contains multiple terminus groups emanating from the site core, three of which are associated with marketplaces (Figure 5.3). Shaw (2008) claims that the layout of Caracol is dendritic in nature and uses two concentric circles of terminus groups that radiate out from the epicenter. The inner ring is assumed to be associated with marketplaces whereas the outer ring is thought to join preexisting sites with the site core as Caracol became a larger polity. The sacbes

extractable iron were found at the outer southern and eastern sections of the plaza. These findings led Chase and colleagues (2015) to believe this is evidence of anthropogenic activities associated with marketplaces. However, these chemical residues could also stem from sweeping materials to the edge of the plaza that is not necessarily associated with marketplace activities.

The Conchita Plaza is located 3.5 km southeast from the Caracol site core. The plaza itself is ringed on all three sides by single room range structures in addition to a larger range structure located on the western side. This larger structure Chase and colleagues (2015) assert likely served as an administration center. Additionally, there is a smaller plaza that is connected to the main Conchita Plaza that is thought to serve as an area where high valued goods were exchanged. Another causeway connects the Conchita plaza with the Oropendula group and ends at the Conch group which is a large elite residential compound that contains three looted burials. Soil samples were again tested indicating high levels of phosphorus and zinc located at the sacbe entrance and the central western structure leading Chase and colleagues (2015) to believe that foodstuffs were being traded. Furthermore, hi levels of iron were found on the east and south sides of the plaza indicating trade in workshop goods were taking place. Together, the mineral traces found in these soil samples lead Chase and colleagues to believe separate economic activities were occurring at different areas of the site.

The last terminus group at Caracol that is posited to be associated with marketplace activities is the Puchituk Plaza. The Puchituk Plaza is located 3 km northeast of the Caracol site core (Chase et al. 2015). Range buildings are located on the northern, western, and eastern sides of this plaza. Furthermore, the residential group east of the Puchituk plaza, labeled the Midget group, contained Stela 23 and finger caches reminiscent of the ritual artifacts found at Zopilote

and Baking Pot. Therefore, it is possible that some terminus groups found at Caracol may not be strictly associated with economic activities and may have also served a politico-ritual function.

Tikal

Tikal is a large urban center located in the Peten province of Guatemala. Tikal used sacbe systems in order to tie outlying populations and economies together in addition to emphasizing the centrality of the epicenter (Chase et. al. 2003). Furthermore, the Tikal sacbe system connects the Great Plaza with ritual architecture found throughout the site. Four major architectural features are connected through a series of causeway systems (Figure 5.4). These architectural features include Temple 1, the Great Plaza, Temple IV, a high status residential group, and the Temple of Inscriptions. Temple 1 housed the burial of Ruler A at Tikal who is credited with the resurgence of Tikal after a hiatus period caused by intersite warfare with Calakmul. Temple IV is associated with Ruler B of Tikal (Miller 1985). Tikal's causeway system seems to be linked to ritual and political functions. Shaw (2008: 121) asserts that the causeways "terminating at special function groups containing temples, the roads at Tikal were built to permit the passage of large numbers of pedestrians at a single time." One can imagine the populace of Tikal gathering in the Great Plaza to engage in a ritual procession that stops at these various localities endowed with genealogical and symbolic importance of the rulers of Tikal. The configuration of the site core of Tikal functioned as a ritual circuit where participants would engage in processions to various localities embedded within the social memory of the community.

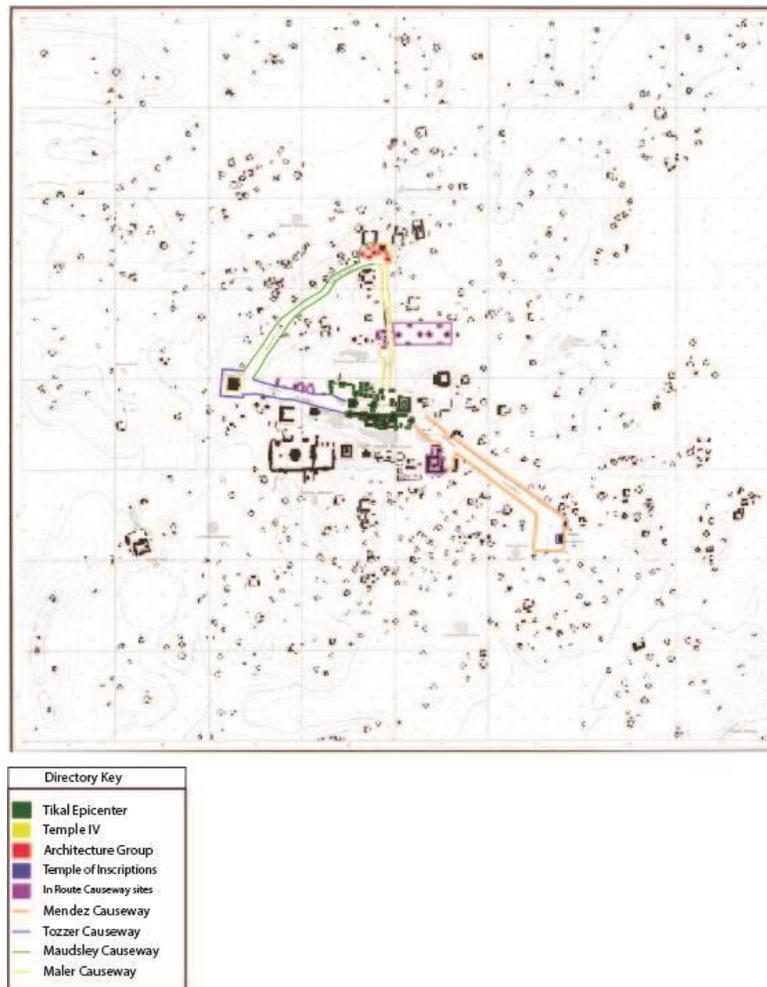


Figure 5.4. Map of Tikal (After Shook et al. 2014).

Chichen Itza

Chichen Itza is a large Post Classic center located in the Yucatan region of Southern Mexico. Cobos and Winemiller (2001) demonstrate that Chichen Itza contains both intrasite and intersite causeway systems. The authors claim that at least 10 different causeways have been discovered at the site linking the Great Terrace, the Sacred Cenote, the Caracol, the High Priest group, the Castillo, and other architectural features together. Many of these features have ritual significance and if ritual procession were indeed taking place than it is on a much greater scale

than what has been discovered in the Belize River Valley or even at Tikal. A *sacbe* connects the Sacred Cenote to the Castillo which has a cavern like feature to the east (Shaw 2008). This arrangement seems to symbolize the cycles of the sun as it rises from a cave in the east and eventually descends into the watery underworld represented by the Sacred Cenote. Furthermore, numerous amounts of human sacrifice and artifacts stemming all the from Costa Rica have been found in the Sacred Cenote. This indicates that Chichen Itza has been a ritual pilgrimage center since antiquity. Even today, Friedel and colleagues (1993) claim that thousands of descendants of the ancient Maya conduct ritual pilgrimages to the Great Plaza during the spring equinox to watch the diamond serpent descend the staircase of the Castillo. Even though the meanings have changed, Chichen Itza is a sacred landscape embedded in the minds of the descendants of the ancient Maya, who, even though they were subject to colonial powers, still remember their ancient past.

The Zinacantan Maya

Even today, we see similar pilgrimages and ritual activities being conducted by present day Maya populations. The Zinacantan Maya of southeastern Chiapas conduct ritual processions to cross shrines located in sacred mountains to make offerings to the ancestors and deities in order to cure the sick, bring rain in times drought, or other factors that affect the community (Vogt 1976). These pilgrimages to cross shrines are literally viewed as visiting the gods and the shrines themselves function as “doorways,” where ritual specialists can act as intermediaries for the community to contact the ancestors and gods. The Zinacantecos march in rank order with the most novice participant in the front and the most senior in the back. In Zinacantan cosmology, marching in “ranked order symbolizes aspects of ancient Maya religion, where the year bearers who carried the year on a tumpline, are depicted as proceeding along the path of time in ranked order.” (Vogt 1976). Three candles, symbolizing tortillas, are planted in the earth and watered

with cane liquor. This ritual action not only ritually feeds the gods but is symbolic of maize cultivation. The purposes of these pilgrimages are to reintegrate participants back into the community and alleviate any ailments that affect Zinacantan society, such as drought conditions. Though the Zinacantecos have been afflicted by colonialism, aspects of their religious cosmological system reflect principles taken from their ancient antecedents.

Conclusion

In this chapter, we have analyzed the archaeological materials and features found at the Zopilote Group over the past two decades by the Belize Valley Archaeological Reconnaissance project. Construction at the Zopilote Group first occurred during the Middle Preclassic period with the construction of Str. 1, which was continuously rebuilt until the Late Classic period. Excavations conducted in the early 1990's by Cheatham and colleagues discovered two vaulted tombs. Tomb 1 consisted of an elite individual with a sacrificial head placed at his feet and numerous amounts of elite paraphernalia. Tomb 2 consist of a Late Preclassic stela depicting an individual in the maw of a composite creature with serpent and jaguar imagery consistent with shamanic transformation. Stela 9 was ritually terminated from its original position and interred beneath the base of the northern staircase. Tomb 2 also contains copious amounts of human sacrifice. We believe that the Zopilote Group function as a locus of political and ideological symbolism elites drew upon to aggrandize themselves to the rest of populace through public rituals.

In the Terminal Classic period, the epicenter of Cahal Pech witnessed a massive depopulation of inhabitants in the surrounding areas. However, there were still commoners inhabiting the site core and periphery locations as there is evidence of post-abandonment activity. A large terminal deposit was found on the western face of Str. 2 consisting of *incensario* fragments, anthropomorphic effigy vessels, and a high proportion of utilitarian bowls. The bowls

in association with the aforementioned ritual paraphernalia leads us to posit that acts of ancestor worship were being conducted at the Zopilote Group. I argue the landscape was viewed as symbolically charged with ritual significance as the site had been associated with ritual activities since Late Preclassic times. Therefore, the Zopilote Group was embedded within the social memory of the ancient Maya as being a location where the ancestors reside and therefore, rituals took place at this location in order to petition the ancestors to placate the gods in times of social crisis.

In accordance with Ashmore's site planning principles, the layout of Cahal Pech and the Zopilote Group were predicated on ideological messages embedded in the landscape used by the elite to legitimize their role as the ruler to the rest of the population (Ashmore 1992). This symbolic linkage connected the ruling elite with the dynastic founding of Cahal Pech through the construction of the Martinez sacbe. However, this symbolism transformed into a pilgrimage site during the Terminal Classic period as commoners could perform rituals aimed at revering their ancestors. This assumption aligns with Tilley's (1997) concept of existential space as the Zopilote Group was continually used to perform rituals. Tilley (1997: 16) states existential space is "experienced and created through life activity, a sacred, symbolic, and mythic space replete with social meaning wrapped around buildings, objects, and features of the local topography, providing reference points and planes of emotional orientation for human attachment and involvement." Through analysis of the southern baulk of the excavation unit, distinct matrix and artifact layering alludes to the idea that these ritual activities were occurring over a period of time, indicating the Maya were continuously revisiting the site likely due to the site's symbolic importance throughout time. Conclusively, Zopilote is a prime example of how sites can shift in

function due to external factors and this functionality can be cross-compared with other terminus groups in the Maya area to gauge the variability of function these architectural groups represent.

The Zopilote Group offers a baseline comparison for terminus groups throughout the Maya Lowlands. Sites located in the Belize River Valley that contain sacbe termini groups seemed to be constructed in non-hierarchical, linear models. The sacbes link large epicenters to sites that are embedded with social memory linked to the dynastic founding of these centers. Burials, stelae, and caches have been found at these terminus groups. However, as the level of social complexity increases, such as at Caracol and Tikal, sacbe systems take on different roles. At Caracol, the growth of the site enabled the construction of sacbe systems to first link areas where mercantile activities may have taken place, in addition, to connecting pre-established sites to the epicenter. The sacbe system seen at Caracol is dendritic and hierarchical in nature. In contrast, Tikal's epicenter constructed a causeway system that linked various archaeological groups associated with rulers responsible for the rebuilding of Tikal after the site's hiatus. Ritual processions likely occurred down these causeways reinforcing the cultural identity of the populace through experiencing sacred structures associated with the prestige of Tikal's accomplishment.

The fact is that the memory and symbolism associated with these structures sometimes never truly vanishes even after millennia. For thousands of years, people traveled to the Sacred Cenote at Chichen Itza to perform sacrifices and give offerings. To this day, thousands of individuals still travel to the Great Plaza at Chichen Itza to witness the spring solstice. The Lacandon Maya of Chiapas still travel to the site of Yaxchilan to perform rituals as they still view the site as being the home of the gods and ancestors (McGee 1990). The Zinacantan Maya travel to cross shrines located in sacred mountains to reintegrate members back into the

community and alleviate forces that afflict the community (Vogt 1976). Through the application of symbolic, landscape, and behavioral archaeology, we as researchers can decipher the embedded meaning the indigenous population placed on their environment through rigorously deciphering the contexts of the sites we excavate and the depositional processes that contribute to the provenience of these archaeological features. Only then can we truly examine what space and place symbolize in the animistic world of the ancient Maya.

Chapter 6: Conclusions

As discussed in the previous chapter, the Zopilote Group served a politico-ritual function that first was used by the ruling elite as a political mechanism to solidify their right to rule through symbolically connecting themselves to the dynastic lineage of the site. The inhabitants of Cahal Pech and the periphery would travel to the Zopilote Group down the Martinez causeway to perform public rituals. This function transformed in the Terminal Classic as the role of divine kinship dissolved and many sites were abandoned. Zopilote was then used by the commoners still inhabiting the area to reinforce their identity and promote group cohesion through ancestor worship as the previous importance of Zopilote as a ritual center was still embedded in the social memory of the group. Evidence of *incensario* vessels, anthropomorphic effigy vessels, and a high proportion of bowls used for offerings indicate that rituals were being performed and the agents were likely commoners. These conclusions are based on contextual analysis of all excavations conducted at the site through application of symbolic, landscape, and behavior archaeology. We further classified the Cahal Pech and Zopilote causeway system as linear and non-hierarchical. Both existed simultaneously before the construction of the Martinez sacbe indicating that cosmological principles were not applicable to this site core-terminus group relationship. The question becomes what patterns in the archaeological record found at the Zopilote Group fortify the claim that the site served a political-religious function?

Firstly, the evidence found at Str. 1 gives some insight into the political-religious function of the site. Str.1 is 11.5 m tall which makes it one of the largest structures located outside the site core of Cahal Pech. The temple is so large that it penetrates the jungle canopy and is visible from the site core. Furthermore, the temple housed two elaborate burials. Tomb 1 contained the remains of an individual interred with a number of sumptuary elite goods including jade, stingray spines, and polychrome vessels. Tomb 2, or the “Stela Chamber,” housed a Late

Preclassic stela that was ritually terminated from its original position and placed beneath the base of the northern staircase. This stela depicts an individual likely in a shamanic transformation who Awe and colleagues (2009) suggest represents a founding lineage figure. The circular depression on top of the stela likely served as a receptacle for offerings giving Stela 9 a composite function of a stela and an altar. The extreme wear found on the surface of Stela 9 leads Awe and colleagues (2009) to suggest that this stela was the focus of veneration by the Maya for hundreds of years. The termination of Stela 9 and its interment into Str. 1 is ritually symbolic of burying the depicted ancestor as this feature is the only association the Late Classic Maya have with this figure based on social memory. Stela 9 was placed in a vaulted tomb similar to Tomb 1 accompanied by large amounts of human sacrifice including finger bowl caches and infant sacrifices. Once the tomb was sealed, Cheetham (2004) reports large amounts of ash on the northern staircase indicating that fire offerings were likely being performed exemplifying the ritual function of Str. 1 as a funerary temple.

Similar evidence has been found at the site of Baking Pot. Firstly, the site represents an intrasite, linear causeway system that is similar to the site configuration of Cahal Pech. Secondly, at Structure 209, a stela without inscription and two altars were found on the western side of the structure. Stela 9 at the Zopilote Group had a circular depression on top of the stela that likely functioned as a receptacle for offerings giving the feature a composite function. Structure 209 also contained three primary burials and one secondary burial also making this structure a funerary temple. The individuals were interred with numerous grave goods including polychrome vessels and jade reminiscent of the contents of Tomb 1 at the Zopilote Group. At Structure 190, an altar was found with at least a dozen finger bowls intermixed in the matrix. The same types of features were found in the matrix occupying the “Stelae Chamber” at the Zopilote

Group. The presence of stelae, elite burials, and fingerbowl caching indicates that both the Zopilote Group and the Baking Pot causeway-termini likely served a political-religious structure.

The contents of the terminal deposit found at the Zopilote Group also gives insight in the group functioning as a pilgrimage location. The presence of *incensario* fragments and anthropomorphic effigy gives weight to the idea that rituals were taking place at Str. 2. Furthermore, the high proportion of bowls also fortifies this claim. At the Sacred Cenote located at Chichen Itza during the Post Classic period, Ball and Ladd (1992) assert that “the apparently ceremonial function homogeneity and formal redundancy of the later Postclassic ceramics are consistent with the archaeological pattern that might be expected to result from a temporally discrete episode of respective, formalized offertory rites at the sacred cenote.” The contents of the Sacred Cenote mostly consist of tripod bowls and dishes with at least four different types of censers (Ball and Ladd 1992). These censers include a zoomorphic effigy censer, a “Lacandon-Style” hourglass or eggcup censers with modeled applied faces, a drum-shaped pedestal censer, and a “Mixtec-style” ladle censer (Ball and Ladd 1992). The zoomorphic effigy censer and the censers adorning modeled applied faces are reminiscent of the anthropomorphic effigy vessel at the Zopilote group. Furthermore, the Lacandon god pots are also similar to the anthropomorphic effigy vessel found at the site. Thompson (1992) claims some of these bowls from the Sacred Cenote contained preserved copal incense indicating these vessels were made to house offerings and are not for food consumption. Thompson (1992: 1) states the Maya at the Sacred Cenote gave “Votive offerings that for unknown centuries, during the times of pestilence, drought, or evil omen, were thrown there in to propitiate the anger of the powerful deity that lives in the abode.” Friedel and colleagues (1993) claim that thousands of pilgrims still travel to Chichen Itza to this day during the spring equinox. Furthermore, the Zinacantan Maya of

Chiapas made similar pilgrimages to cross shrines in times of social crises where incense is burned and offerings are given to the gods. (Vogt 1976). Therefore, the presence of *incensario* vessels, anthropomorphic effigy vessels, and the high proportion of bowls fortifies the claim that the terminal deposit found at the Zopilote Group likely reflects rituals associated with pilgrimage.

Conclusion

In all, numerous interpretations regarding the function of terminus groups in the Maya Lowlands have been posited by archaeologists. We hypothesized that the Zopilote Group first served a political-religious function that elites drew upon to aggrandize their status and symbolically connected themselves to the founding lineage of Cahal Pech. After the collapse of Cahal Pech in the Terminal Classic period, the Zopilote group was continuously revisited by the ancient Maya in order to venerate their ancient ancestors and appease the gods in times of social crisis. This ritual behavior can be traced to other centers in the Maya Lowlands, such as those found at Baking Pot. However, other archaeologists have attributed a more domestic function of terminus groups such as those found at Caracol, though ritual materials have still been uncovered. The only way in which we can analyze the variability of functions these important centers facilitate is to critically analyze the artifactual material and the context this material was found that may indicate what types of human behaviors were being orchestrated at these centers. Only then can the role and function of terminus groups in the Maya World truly be uncovered.

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