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Entourage: Practices and Political Strategies of the Non-Royal Elite at Late Classic El Zotz, Peten, Guatemala

A dissertation submitted in partial satisfaction

of the requirements for the degree Doctor of Philosophy

in Archaeology

by

Anna Brandeberry Bishop

2022

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ABSTRACT OF THE DISSERTATION

Entourage: Practices and Political Strategies of the Non-Royal Elite at Late Classic El Zotz, Peten, Guatemala

by

Anna Brandeberry Bishop

Doctor of Philosophy in Archaeology

University of California, Los Angeles, 2022

Professor Richard Gardner Lesure, Chair

Although the wars waged by Classic Maya kings were carefully documented in stone by ancient Maya scribes, little is known about the internal battles fought on the political field. Maya inscriptions present the court as a body unified behind its king, however there is reason to believe that courtiers under the king possessed their own aspirations, and competed with one another for power and security. During the Late Classic a flourish of new elite residential construction at royal centers and the appearance of new sub-royal titles on public monuments signaled that a burgeoning noble class gained influence in Maya courts. This second tier of elites existed in an exclusive political system primed for competition over power and resources. Hints in the ancient textual record suggest that factions within Maya courts contended with one another to improve their positions. This dissertation seeks to establish the competition within

the aristocracy of a Classic Maya polity, and what methods the secondary elite pursued to jockey for power.

The dearth of non-royal elites in art and texts at most Classic Maya sites poses a methodological challenge: how does one study the internal dynamics of Maya courts without explicit historical references? I hope to address this question by analyzing the Late Classic aristocracy of El Zotz, using archaeological evidence to compare the practices of different lineage groups at the site. I focus on three residential complexes built outside the royal palace of El Zotz during the Late Classic, each with elite characteristics. My research seeks to answer two questions: (1) which of the newly constructed Late Classic residential groups around El Zotz housed non-royal elites? And (2) what strategies did the non-royal elites at El Zotz pursue to gain power within the political system? With these questions I identify the politically influential parties in the court of El Zotz beyond the royal family, and the tactics that they used to compete for dominance inside the government structure at the site.

The dissertation of Anna Brandeberry Bishop is approved.

John K. Papadopoulos

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University of California, Los Angeles

2022

For my Mom,

who taught me to always move forward.

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1. INTRODUCTION

Lifestyles of the Rich and Famous

Humans are fascinated by the lives of the 1%, the social elite. Modern celebrity culture generates an obsession among the public over the behavior, daily activities, and choices of celebrities. This widespread interest is evident in the popular media today. Celebrity news magazines and websites including People, Us Weekly, Star, and Entertainment Weekly are some of the most widely read media outlets in the United States, while popular reality television shows such as the Real Housewives series, Keeping up with the Kardashians, Bling Empire, MTV Cribs, and the original Lifestyles of the Rich and Famous showcase the routines and day-to-day interactions of the modern social elite for public consumption.

The famous, wealthy, and powerful exist within established systems of high-status symbols and behaviors that dictate the parameters of each member's actions. In the world of Hollywood, celebrities must attend award banquets and engage with fans, and in Manhattan wealthy socialites are expected to wear designer brands and donate to the charity of choice for each of their acquaintances in a pattern of reciprocal gifting. By continually engaging with these systems, participants also reinforce them.

Although social elites may work jointly to preserve the social structures that afford them power, they may also work against one another internally for greater personal gain.
Today this results in drama on reality TV and in tabloids, but it can also present itself in less obvious ways, such as a new product that a celebrity launches, or the people with whom a socialite associates. These are all strategic choices made within the accepted system of an elite context. It is common practice for members of an aristocracy to pursue tactics that will advance their personal social capital, the key being to identify methods that can alter political dynamics without violating the established structure. In Heian period Japan members of the aristocracy

fought fiercely to advance their social, material, or political power through complex marriage arrangements, where both the bride-giving party and the bride-taking party benefited from the others influence and capital (McCullough 1967; Nickerson 1993). Similar marriage-alliance strategies were pursed among the elite class of the decentralized Postclassic Mixtec kingdoms. The significance of these unions is apparent in the Mixtec codices, where marriages were painstakingly recorded in order to reinforce obligations between the allied factions and to validate the status and office of political leaders (Pohl and Pohl 1994; Pohl 2003). In dynastic Egypt nomarchs sought greater prestige through the afterlife, using massive tombs as demonstrations of their power. These bureaucratic elites recorded their achievements at length in coffin texts and inventoried their wealth of resources and labor in wall paintings (Van de Mieroop 2011).

Celebrities today are akin to ancient elites in that they are situated at the center of a society's power networks and system of meaning generation (Couldry 2000; 2003). At the periphery of these networks are the unfamous; the general public who reproduce and circulate meanings established by those with power. While to outsiders the inner circle might appear harmonious, the ways that people convey and wield power say otherwise. For the ancient Maya elite, life inside the aristocracy was likely just as competitive as it can be today. Although the members of the Classic Maya royal court all operated within the same system of prestige and shared a common goal (supporting the king), it should not be assumed that these individuals were united (Inomata and Houston 2001a). This dissertation seeks to establish the competition within the aristocracy of a Classic Maya polity, and what methods the secondary elite pursued to jockey for power.

This study focuses on a select subset of Classic Maya courtiers. The term courtiers includes a broad group of individuals centered around the king, and although not all were

considered of high status (i.e. servants, valets), all had access to the elite by nature of their duties. However, the study here focuses on those members of the court that are most likely to have held political influence, and thus could impact and form factions within the local government. These individuals may have been related to the king, and could have held administrative, ecclesiastic, or functional positions within the court. I will refer to these individuals as the nobility, sub-royals, aristocrats, elite courtiers, secondary elites, or non-royal elites.

This dissertation investigates secondary elites at the ancient Maya site of El Zotz. The study targets residential groups outside of the royal palace with elite characteristics, using new and previously collected excavation data from three different locations. I compare materials from each of these groups to determine which families belong to the category of "sub-royalty", and then I identify the different practices and strategies that sub-royals used compete for power.

Maya Kingship

Incipient kingship in the Preclassic (2000 BC – AD 250) was founded on a shared ideology emphasizing abstract, natural forces and their godly personifications. Dynastic power grew out of these beliefs in the guise of a physical manifestation of those cosmological forces (Houston and Stuart 1996). Rulers derived their power from their relationship with the supernatural, and acted as an axis mundi by channeling the power of the gods to the earthly realm and centering the universe. While early monumental architecture at Maya ceremonial centers tracked the passage of the sun and time, later Preclassic buildings became expressions of political authority (Doyle 2017). Triadic groups representing the three hearthstones that ignited the universe and platforms symbolizing the four corners of earth served as stages for rulers, where they could stand at the center of the cosmogram as a living axis mundi (Freidel

and Schele 1988; Hansen 1998; Taube 1998). This divine writ underwriting Maya kingship is even more blatant in the Preclassic San Bartolo murals, where the Maize god sits on a scaffold and receives the jester god headband worn by Maya rulers. This section is immediately adjacent to another scene where a human ruler sits on a similar scaffold, and is presented with another headdress of rulership (Saturno et al. 2005). The parallel here is clear; Maya kings are the human embodiment of the gods, and their symbols of authority stem from a sacred supremacy. This cuts to the root of Maya political authority.

In the Classic period Maya kings became the center of public life, directing both religion and politics. Kingship evolved into an institution focused on historic individuals as opposed to abstract forces. Funerary cults were born out of a reverence for past monarchs, and an emphasis on lineages in texts belied a concern for dynastic succession. Rulers headed the state religion as the ex officio high priest, performing major public rituals and communicating directly with the gods and ancestors. Kings built monumental temples that were later used as funerary shrines after their death. This practice in reality was an extension of the veneration of the deceased that is common in Maya ritual, however the level at which it is carried out expresses the significant difference in both social and economic power that Classic Maya elites had over the rest of the population (McAnany 1995). Many traditional religious practices were appropriated and enhanced in this way by kings and used towards a state ideology. Monarchs held feasts with elaborately painted dishes, used ritual instruments made of exotic materials, and buried ceremonial caches of the finest jade in public spaces. In this way Maya magnates performed their religious duties while also aggrandizing and reinforcing their own position.

Palaces also appear in the Classic period, demonstrating the establishment of the royal court. Elaborate elite residences, like the famed two-story House of Chak Tok Ich'aak in the Central Acropolis at Tikal, suggest that regnal powers extended to the larger dynastic family and

a bureaucracy developed beneath the king. Courts consisted of vaulted masonry buildings, open plazas inside tightly restricted complexes, and a variety of high and low platforms (Martin 2001). While some of these structures were undoubtedly for domestic activities like cooking and sleeping, others were official rooms for receiving guests and conducting business. The scale and craftsmanship in these structures shows the wealth and power of not just the king, but his family and associates. Models based on historical courts suggest that the monarch was likely surrounded by an entourage of relatives, consorts, advisors, and underlings that made up his court, as well as any functionaries that served specific religious, military, administrative, or utilitarian purposes (Houston and Stuart 2001a; Inomata 2001a).

At the end of the Classic period kings and royal courts became less active. Fewer monuments were commissioned and building activities ceased, sometimes mid-construction (Lee 2012; Newman et al. 2018). Remains of fortifications and ransacked cities suggest that military conflict between sites had escalated in the west, while palaeoecological data indicate that parts of the Maya Lowlands experienced lengthy droughts (Inomata et al. 2002; O'mansky and Dunning 2004; Demarest et al. 2016). By AD 950 most royal entourages abandoned their monumental homes, and palace ruins were recycled by people from the hinterland moving into the core (Valdés and Fahsen 2004; Kingsley and Gámez 2018).

This region-wide transition is referred to as the Classic Maya "collapse", however it is important to define what collapsed. The Classic Maya collapse refers to the breakdown of a specific political system in southern Lowland Classic Maya society (Tainter 1988; Demarest 2013; Faulseit 2016). At the end of the Late Classic the Maya population ceased to invest in the Classic institution of kingship. As a result, royal centers were abandoned and the elite ritual and economic systems that characterized the Classic period disappeared. While this did not immediately impact the hinterland population of the southern Lowlands, over time there was an

undeniable exodus of people, many of whom moved into the northern Lowlands where capital cities were still thriving, largely unchanged by the Classic Maya collapse (Palka 1995; Aimers 2004; Demarest et al. 2004; Kingsley 2014). Nevertheless, the belief systems and domestic practices of the Maya remained after the collapse (Foias and Bishop 2013; Kingsley 2014).

Classic Inter-site Politics

The Classic period was marked by the florescence of Maya hieroglyphic writing, which documented a complex web of political relationships. Texts on stone monuments and architecture recounted friendly relations cemented by marriage alliances and reciprocal attendance at major ritual events. Archaeologists have also inferred alliances through texts on portable objects. Vases and personal ornaments appear in the burials of rulers all over the Maya region, however many name foreign rulers as their owners, signaling that these items were gifted by their owners as a means of diplomacy (Reents-Budet 1994; Martin 2020). On a broader level, the discovery of site- or region-specific ceramics and exotic materials outside their place of origin attest to a large and intricate trade network that connected distant Maya polities, even when those ties weren't formalized in writing.

When relationships turned sour Classic records also chronicled warfare and rivalries between territories. References to star wars, captives, axing, burning, and forced exile abound on Maya mounuments, while courtly art pictured warriors, prisoners, weapons, and the occasional battle scene. These battles were not mere raids or skirmishes, but largescale assaults on capital cities that expelled kings and supplanted dynasties (Martin 2020). Perhaps the most famous conflict was in the Late Classic between Tikal and the Snake Kingdom, seated at Calakmul. These superpowers battled each other directly and through proxies for over a century with substantial consequences. Calakmul's catastrophic defeat of Tikal in 562 initiated a

125-year hiatus in Tikal's written record, while Tikal's eventual return and triumph over Calakmul in 695 began the dismantling of the Snake kingdom (Martin and Grube 2008). Each power had its own network of allies and client centers, assembled by means of diplomacy, coercion, and conquest, that they pitted against the other. Wins and losses between these two spheres of influence resulted in fluctuating political affiliations across the central Peten, but these were not the only affairs at play. Royal courts in distant regions like the Usumacinta obsessed over local rivalries, and the Petexbatun descended into militant chaos amid a horde of petty kingdoms in the latter half of the Late Classic (Martin and Grube 2008).

These wars and alliances resulted in a web of site hierarchies, where less powerful polities became vassals to more influential ones. Texts on monuments recounted asymmetrical relationships in which superstates like Tikal or Calakmul would claim "ownership" of lords from other sites and oversee activities at these client centers during intermittent visits. The earliest hegemony was started at Tikal by the Teotihuacan military leader Sihyaj K'ahk' during the fourth century (Martin 2020). This is where hierarchical terms and the concept of political possession first appeared in the textual record, beginning first with Sihyaj K'ahk's control at Tikal, and then spreading to incorporate Naachtun, El Perú, Bejucal, Rio Azul, and Maasal under Tikal's regime (Martin 2020). While these are just the relationships that appear in extant texts, the sphere of Tikal undoubtedly included more sites in the Early Classic, including Copan and Holmul, and expanded in the Late Classic. Polity pecking orders reached their peak in the Late Classic, at first under the warring states of Tikal and Calakmul, and finally in the 8th and 9th centuries as more sites asserted their own formal royal dynasties and conflict between sites increased significantly. While in most cases dominant sites exhibited direct control over their subsidiaries, documentation of three-tiered site bureaucracies indicate that multiple levels of power could exist inside the regime of a single polity (Martin 2020: 256, 259). By the end of the Late Classic

minor centers in the Usumacinta and central Peten were constantly switching between patron polities, and new dynasties were fighting to subjugate one another in the Petexbatun.

Classic Intra-site Politics

While much is known about Maya politics and hierarchies between sites, far less is understood about such affairs within sites. Power differentials inside Classic Maya governments are unclear, and little is known about the presence of factions or multiple agendas within a local system and the strategies pursued by individuals to compete inside a court. Texts aggrandizing local monarchs chronicle the battles between dynasties, but this is only one side of the story. The battles within the dynasty are the obscured and untold side of Maya politics.

The structure of the Maya political system created plenty of opportunity for courtiers below the king to make political maneuvers in the name of personal advancement. The polygynous nature of Maya kinghood allowed for multiple royal lines under a single king, fostering competition among royal consorts, royal progeny, and their allies (Houston and Inomata 2009). Furthermore, it is clear from the unstandardized structure of administrative and ecclesiastic titles across Maya polities that the pool of contenders for sub-royal offices was not strictly defined, and that an individual could work his way into a position through a variety of pathways (Zender 2004; Houston and Inomata 2009; Jackson 2013; Martin 2020). This open list of competitors for offices and titles increased the opportunity for rivalries and infighting among the Maya nobility. People beyond the king possessed agency within Maya aristocracies, as evidenced by regents that oversaw young kings, non-royal elites that ascended to kinghood, and queens that were sent out to seed new dynasties and establish alliances (Martin 2020). At Tonina a high-titled court official, K'elen Hix, served as the regent for the young Ruler 4 for seven years, during which time he performed the necessary ceremonies for the success of the

kingdom (Martin and Grube 2008; Martin 2020). Queen Ix Wak Jalam Chan of Naranjo was unique in that she moved from her home of Dos Pilas to reinvigorate the dynasty at Naranjo as both a queen, and soon after as mother regent to her young son, K'ahk' Tiliw Chan Chahk (Martin and Grube 2008; Martin 2020). As regent Ix Wak Jalam Chan led an extensive military campaign and was featured on a variety of stela as both a ritual actor and warrior. In a particularly unusual rise to power, K'inich Lamaw Ek' began as the son of a non-ruling *ajaw* with a low functionary role (*baahtz'am*) in the court of Motul de San José and reached the level of ruling overlord (*kaloomte'*) over at least ten years (Velásquez 2011; Martin 2020). It is granted that by all accounts these stories are the exceptions, not the rule, but that does not mean that courtiers did not possess agency or exert influence in ways that were unpublicized.

Even though internal struggles in Maya courts were not recorded in texts, some conflicts were so large that they are obvious to scholars even centuries later. The establishment of Dos Pilas by Bajlaj Chan K'awiil, royal son of Tikal, is perhaps the clearest example of factionalism within Classic courts. The original relationship of Dos Pilas to Tikal is not defined in texts, but what is clear is that around the time Bajlaj Chan K'awiil's half-brother, Nuun Ujol Chaak, acceded to the throne at Tikal, Bajlaj Chan K'awiil left Tikal to start his own polity in the Petexbatun region of the Maya Lowlands. Soon after Dos Pilas allied with the Snake Kingdom and became hostile towards Tikal, culminating in a series of battles between the two brothers in the late 7th century. Despite this blatant internal fission at Tikal, the relationship between Bajlaj Chan K'awiil and Nuun Ujol Chaak is never discussed in inscriptions, nor is Bajlaj Chan K'awiil's past at Tikal described other than his parentage on Panel 6 at Dos Pilas (Martin and Grube 2008). Still, Bajlaj Chan K'awiil used the emblem glyph of Tikal for his dynasty at Dos Pilas and declared himself to be the holy lord of Mutul. The fact that Bajlaj Chan K'awiil claimed this supreme title, and was never referred to as a vassal of Tikal, indicates that Dos Pilas was not

started as a satellite of Tikal but was started as a rival Tikal dynasty. However, the distinct lack of any record regarding competition between lineages within Tikal, even in these drastic circumstances, shows how inner political turmoil was censored and glossed over in the Classic Maya historical record. Despite this censorship, the events that were documented confirm that factionalism did exist within the Maya political system.

Dynamics within a court have only been inferred by the presence of supporting courtiers in Maya courtly art and texts, and from the rare archaeological contexts that showcase these individuals. The question of noble lineages and factions is key to some of the major historical developments of the Maya, particularly the military campaign of Teotihuacan into the central Peten in the Early Classic, and the collapse of Maya kingship in the southern Maya Lowlands at the end of Classic period. In the case of the Teotihuacan entrada, this Central Mexican superpower conducted a military excursion into the heart of the Maya Lowlands ending at Tikal, where the Tikal king promptly died and a new dynasty was put in place under the supervision of Teotihuacan (Stuart 2000). From that point on, kings around the central Peten began to refer to Teotihuacan leaders as their overlords (Estrada-Belli et al. 2009; Guenter 2014; Garrison et al. 2016; Nondédéo et al. 2019). While this is just the official record in Maya texts, the inference is clear; Teotihuacan warriors arrived, killed the king of Tikal, and started their own local regime with expansionistic ambitions (Stuart 2000). However, while it is generally accepted now that these were true historical events and not a mythical narrative, there is still much debate about who really orchestrated the usurpation of Tikal's king (Laporte and Fialko 1990; 1995; Braswell 2003; Freidel et al. 2003; Wright 2012). The fact that Teotihuacan influence was confined to elite spheres suggests this political takeover specifically targeted royal courts. This, combined with the possible presence of Teotihuacan goods at Tikal before the entrada, has led some Mayanists to argue that the Teotihuacan incursion was more likely an internal revolt in disguise

(Laporte and Fialko 1990; 1995; Freidel et al. 2003). Juan Pedro Laporte and Vilma Fialko (1990; 1995), and David Freidel and colleagues (2003) have separately argued that a rival lineage at Tikal with trade and political ties to Teotihuacan may have orchestrated or supported the attack on Tikal's ruling monarch in order to seize power within the royal court. The internal versus external solution to this question changes our understanding of Maya politics substantially. If the entrada was in fact an instrument for local elite factions to gain power, then the disharmony within Classic Maya courts was far beyond what has been portrayed in the "official" court record. Additionally, an insider role in the entrada suggests that separate lineages within local aristocracies had great control and latitude over their own affairs when it came to trade and external relations, so much so that a close relationship to Teotihuacan could have been fostered independently of the Tikal king.

It has also been suggested that a growing number of nobility at the end of the Late Classic led to increasing competition for political power within polities, and potentially contributed to the Classic Maya "collapse" (Culbert 1991; Demarest 2004). Over the Late Classic royal courts naturally grew as they became wealthier and more powerful. This led to an expanded network of nobility that kings had to control or even appease. Some Mayanists posited that this could have destabilized the divine monarch's power base, and/or accelerated tensions in an already volatile political climate of increasing warfare (Culbert 1991; Houston and Stuart 2001; Demarest 2004; Martin and Grube 2008; Jackson 2013). The burgeoning elite class is evidenced by the exponential increase of courtly titles in Maya texts, the stone monuments depicting individual office holders alongside their kings, and the monumental residences and thrones dedicated to these individuals in the Late Classic (Figure 1) (Webster et al. 1989; Webster et al. 1998; Houston and Stuart 2001; Zender 2004; Houston and Inomata 2009; Jackson 2013; Martin 2020). The most references to sub-royal titles are found in the

Usumacinta region, which, like the neighboring Petexbatun region, was gripped by local feuding between sites in the Late Classic. These two regions were the earliest to experience the Classic period decline. The dismantling of this region was dramatic, with polities attacking and sacking one another (Martin and Grube 2008). Sites were burned and dismantled, entire courts fled to fortified refuges, royal families were slaughtered, and even the greater rural areas were depopulated (Demarest et al. 1997; Inomata et al. 2002; O'Mansky and Dunning 2004; Demarest 2004; Demarest et al. 2016; Inomata 2016; Bazy and Inomata 2017). In contrast, in the central Peten, where few public concessions were made to secondary elites, inhabitants suffered less military turmoil at the end of the Late Classic and instead experienced a slow political deterioration and exodus in the Terminal Classic (Martin and Grube 2008). Mayanists have pointed to this correlation as an indicator that the swelling aristocracies of the Late Classic contributed to of the breakdown of Classic Maya kingship, but because of the limited information surrounding factions and conflict inside Maya courts, the link has yet to be proven (Martin and Grube 2008; Jackson 2013; Demarest 2013). If factionalism did contribute to the end of Classic political institutions, then what did the noble lineages do specifically to accomplish this? How did they weaken the monarch and strengthen their own powers? The extent to which Late Classic courts were truly divided or united has so far eluded researchers, and the strategies that these non-royal elites could have employed to gain power is unclear.

As previously mentioned, most knowledge about Classic Maya nobility comes from courtly art and texts. However, for most Classic Maya sites these inventories provide no information on non-royal subjects. Few sites possess the lengthy textual records or monumental corpuses found at Palenque, Copan, Piedras Negras, Yaxchilan, Tikal, and Dos Pilas, and most ancient Maya polities simply did not pour resources into chronicling the lives of their nobility on permanent media. The absence of non-royal elites in art and texts at most Classic Maya sites

poses a methodological challenge: how does one study the internal dynamics of Maya courts without explicit historical references? I hope to address this question by analyzing the Late Classic aristocracy of El Zotz, using primarily material evidence to compare the practices of different lineage groups at the site.

Purpose

This study investigates El Zotz, a small royal Maya center in the Buenavista Valley of the central Peten region of Guatemala. The site was occupied by people continuously from as early as 800 BC to as late as AD 1300, during which time a local dynasty called Pa'ka'n formed and thrived. Even though few carved monuments or inscriptions have surfaced at El Zotz, substantial changes at the site during the second half of the Late Classic (725–850) indicate that the number of court members at El Zotz rose significantly at this time. Renovations to the central palace at El Zotz suggest that the Pa'ka'n royal family was flourishing and in need of more space. This manifested in the Northwest Courtyard, a western extension to the Acropolis. At the same time, residents built a new hilltop elite residence called Las Palmitas, and inhabitants of a nearby residential group called La Luna acquired prestige objects in quantities normally only found in royal courts. These developments suggest that the aristocracy of El Zotz was expanding and spreading out during a moment of elite fluorescence. The surge of activity reflects the general prosperity of El Zotz in the 8th century, but it may also speak to a growing sub-royal class at El Zotz that began to assert itself, before a political system failure in the 9th century.

I present data to answer two questions: (1) which of the newly constructed Late Classic residential groups around El Zotz housed non-royal elites? And (2) what strategies did the non-royal elites at El Zotz pursue to gain power within the political system? With these questions I

hope to identify the politically influential parties in the court of El Zotz beyond the royal family, and the tactics that they used to compete for dominance inside the government structure at the site. To identify the nobility at El Zotz I will utilize practice theory to compare the behaviors of the occupants at three Late Classic household groups around El Zotz (the Northwest Courtyard, Las Palmitas, and La Luna) against the typical behaviors of the royal family, and the general public only loosely tied to the royal court. After determining the role that each of these three families played in the court of El Zotz, I will consider how the practices of the secondary elites functioned as mechanisms to improve their influence and prestige. I consider what methods existed within the structure of a Late Classic Maya court for non-regnal magnates to build up their own power, and how those methods changed over time. This investigation will illuminate the internal dynamics of Classic Maya governance, and the recourses available to high ranking political actors. Understanding such relationships is critical to identifying stress in the political system at a Classic Maya polity, particularly leading up to that system's collapse.

Intellectual Contribution

El Zotz is an ideal site for this study because it epitomizes many of the challenges scholars face when researching Maya internal politics. El Zotz has few dynastic monuments and inscriptions, and it is located in the central Peten, a region that was particularly unforthcoming regarding sub-royalty in history. At the same time, the inhabitants of distinct household groups around El Zotz appear to have had a close connection to the local court based on their location, architecture, and artifact assemblages. Such standout household groups are common at Classic Maya royal centers, even when no reference is made to courtiers in a site's official public record. This research will put forward a way to study dynamics among court members based on the typical archaeological remains found in courtier household groups. Hopefully the methods

used here will be able to aid archaeologists pursuing this topic at other sites similarly lacking in conventional courtly sources.

Thus far Mayanists have focused mainly on external relations and conflict (between local or distant polities) as drivers of historical events and political change. Internal conflict as a cause of these is unclear and poorly understood. This is not the fault of Maya scholars, but simply the result of the bias in extant Maya texts, which focus on successful ritual performances and military victories against outsiders. Public, courtly art is not a natural venue for a government to expose its weaknesses or air dirty laundry, so it is not surprising that Maya inner political dynamics have received less attention from scholars historically. Simon Martin's detailed work is one of the few that attempts to tackle factionalism by stringing together scant references to unusual successions, but the limited inferences that Martin is able to draw are indicative of how rare this subject is in Maya art and texts (Martin 2020).

Biases in the ancient textual record have led to a one-sided narrative in Maya politics. Maya government is painted as a single-minded body subject only to the will of the king, when in reality Maya courts could support a large cast of characters, some of whom might have influenced or even fought against the king. This study emphasizes the dynamic, tenuous nature of Maya internal politics and the agency of those people immediately below the king. The assumption that a Maya king's subjects followed him uncritically and indiscriminately is a result of the rose-colored lens through which the original Maya public record was written. Early and current scholarship has explored the political agency that common people possessed in their relationship with the central government, but far less is known about agency of the people within that government (Thompson 1954; Lohse and Valdez 2004; Gonlin and Lohse 2007; Robin 2013). This research will attempt to disabuse the notion of a blindly accepting constituency and consider the will and self-interests of all the contributors to Maya government.

The extent of factionalism among magnates within the Maya court would have impacted stressors within the political system. Data on this internal structure are critical not just to understanding Maya government and organization, but also to explaining the political events that shaped Maya society, particularly the breakdown of political structures. The collapse is being looked to more frequently as a model for environmentally and socio-politically motivated decline. While archaeologists have established the effect of droughts in the Petén, and political breakdown from inter-site competition to the south, less is known about the political situation that unfolded inside sites at this time. Such information is key not just to clarifying Maya culture history, but also for understanding the general process of societal collapse and determining the political conditions that destabilize social systems.

2. MAYA COURTS AND COURTIERS

The Starting Point

In order to identify members of a court we must first define what a court is. Takeshi Inomata and Stephen Houston provide two definitions: the physical location that houses the royal family and hosts court activities, or a party of people that includes a ruler and the company with which he surrounds himself (Inomata and Houston 2001a). Central to the court as a group of people is its organization around the ruler, and members that are united by their commitment to the kingship institution and shared obligations (Inomata and Houston 2001a). Inomata and Houston are careful to point out that not all members of the court necessarily held lofty social status, as a king's entourage could also include guards, servants, occupational specialists, etc. This is certainly true in the Maya world, where court scenes in Classic art depict a range of characters, and different residences in palace compounds served a variety of purposes. At the same time, not all members of the court resided locally, and commuting nobles could even have their own palaces outside of the capital. For this reason I will follow the person-focused definition of courts, to include those mobile units of the larger institution. While proximity to the king was necessary for many jobs in the court, there were certain bureaucratic roles and subjugated neighboring rulers that were located outside the site core, yet still served the king and contributed to his regime. The size of the court entourage differed for each polity based on the landscape, settlement patterns, local politics, material wealth, and regional dynamics. Therefore, court membership should be defined on a site-specific basis.

But what was the function of the court? Mayanists believe that the royal court was the ruling body of each polity for the ancient Maya, just as it was for the Postclassic Maya (Inomata and Houston 2001a; Braswell 2001; Ringle and Bey III 2001; Martin 2020). The court was the seat of local government, however administrative structures varied significantly from kingdom to

kingdom, indicating that the internal composition of Maya government was not rigidly defined or universal. Instead, it appears that Maya bureaucracy was loosely structured (Sanders and Webster 1988; Inomata 2001a). In similar preindustrial societies where bureaucratic structure was less clear, administration was inextricable from the court (Kuper 1947; Mair 1977; Inomata and Houston 2001a; Inomata 2001a). Furthermore, where internal structures are unprescribed, government is often heavily shaped by individual personalities and interpersonal relationships within the court (Inomata and Houston 2001a). This means that courtiers and all of their relationship dynamics dictated local Maya politics.

Based on cross-cultural surveys, jobs within courts ranged from royal household management to polity administration, diplomacy between polities, military command, organization and performance of ceremonies, and artistic production (Mitamura 1970; Armstrong 1977; Hodge and Blanton 1996; Evans 2001; Vale 2001; Inomata 2001a). In some polities different parties specialized in each of these duties, while in others one individual could share in multiple duties. Given the possibility for overlap within a vast assortment of courtly roles, it is best to use multiple lines of evidence when studying a court and its members. In Mesoamerica archaeologists use a diversity of sources to identify courts and their political structure, including architecture, material culture, art, epigraphy, and ethnohistorical records. I will next explain how Maya archaeologists study royal courts and their members, and what in particular has been established thus far about the internal workings of Classic courts.

Architecture

Architecture is a classic indicator of political power and government institutions in archaeology. Ever since Frederick Catherwood's illustrations of majestic ruins reintroduced the western world to the ancient Maya, archaeologists have been fascinated with the tremendous

pyramids, elaborate building facades, and massive stone sculptures found in the monumental cores of Maya sites. Of particular interest to archaeologists were the centrally located, large, masonry, multi-room structures that sat on low platforms. While the label “palace” was widely used for these buildings, their residential function was contested in debates on Maya political organization (Satterthwaite 1933). Sir Eric Thompson (1963:48-49) argued that Maya cities were vacant ceremonial centers without any residential population. Thompson believed that Maya centers hosted large rituals for an intellectual priesthood focused on astronomy and the passage of time, and that palaces were used for private ceremonies, formal meetings, and storage, not for dwelling. According to the vacant ceremonial center model, Maya capitals were not political but religious centers, and the Maya had little interest in warfare, social climbing, history, or politics (Thompson 1963). This reading of ancient Maya sites was overturned with the decipherment of Maya texts, which recorded kings, dynastic histories, and wars, and with settlement pattern studies, which revealed a widespread residential population inside and surrounding Maya sites (Proskouriakoff 1960; Willey and Bullard 1965; Willey et al. 1965). With these new data sources the scales tipped back to a political interpretation of Maya sites.

During the processual era of archaeology settlement hierarchy typologies were introduced, with famous examples from the Northeastern Peten, Tikal, Coba, Copan, Seibal, Sayil, and the Belize River area (Bullard 1960; Carr and Hazard 1961; Haviland 1966a; Kurjack 1974; Willey and Leventhal 1979; Ford 1986; Haviland 1981; Fash 1983; Tourtellot 1988; Carmean 1991; Ford 1991). These typologies used a combination of spatial layout, number of structures, structure size and height, architectural techniques, and building materials to define levels of settlement complexity. The underlying implication of these typologies was that larger, more elaborate residential buildings required more labor to build. As a result, more social or political clout and wealth were needed to commission and subsidize their construction (Kurjack

1974; Abrams 1984). In this sense, settlement patterns are used as a gloss for status and power in Maya archaeology. This association was quantified in later surveys by applying equations to calculate the amount of labor that went into building individual structures (Abrams 1984; Arnold and Ford 1980; Carmean 1991). The results of these energetics analyses reflected the human cost required to procure raw materials, transport them to the building site, transform the raw materials into usable construction supplies, and then build a structure from these supplies, using specific construction techniques. These energetics analyses translated the hermeneutic basis of settlement typologies into hard numbers, and confirmed that the different levels of residential groups outlined in settlement typologies would have held significance to the ancient Maya as well, since different residential levels required noticeably different labor commitments from residents.

Royal Maya palace compounds are situated at the apex of settlement typologies. This settlement tier features complexes of large masonry range structures, hieroglyphic monuments, and elaborate architectural décor. Typically, palaces are elevated on a large platform and frame an interior courtyard, or in some cases multiple interior courtyards (Andrews 1975). The buildings can be single-chamber, multi-chamber, or gallery structures made of rectangular block-shaped stones and thick stucco. Structures are not strictly standardized in form but appear in a variety of sizes and combinations. Features such as corbel vaults, towers, and second stories would have required great architectural knowledge and skill to create, while sculptural facades, carved lintels, and door jambs reflect access to talented artisans.

Compounds that fall into this tier are labeled courts because they appear to have served both a residential and administrative function for Maya government. Excavations confirm the royal-residential nature of palaces through burials, domestic refuse, and texts dedicating individual residences to specific rulers (Harrison 2001). However, the variety of courtyards,

architecture, and interiors in palace compounds also indicates a mixed-use of space. The thrones and altars found in different chambers are indicative of diplomatic reception rooms rather than living quarters, and the occasional performance platform or shrine within palace compounds functioned for ritual and political performances (Harrison 2001; Andrews et al. 2003).

Beyond the top settlement tier are secondary (and sometimes tertiary) levels of housing with less construction volume and artistic embellishment than the top tier, but still with large masonry buildings made of shaped blocks and thick stucco. Secondary settlement groups typically possess many of the features of royal courts, but on a slightly smaller scale (Willey and Leventhal 1979). These groups, often termed “minor centers” (Bullard 1960), are typically thought to belong to ancient Maya lineages that had great wealth and socio-political power, but that did not have a close enough relationship to the king to receive a residence in the royal court. Second tier settlements are thought to be the homes of politicians, administrators, and extended members of the royal lineage. While second tier settlements possess fewer inscriptions than first tier settlements, texts from minor centers at Copan and Piedras Negras confirm that second tier residents were members of noble lineages (Webster et al. 1989). The identification of these residences opened the door to investigate internal Maya political structures, however the extreme variation within this category of “minor centers” leaves more questions than answers about the role of non-royal officials in Classic Maya courts.

Minor centers at Copan, Calakmul, and Aguateca were located close to each site’s royal court and were connected by causeways, indicating these secondary elites were closely integrated into local politics (Willey et al. 1978; Inomata and Stiver 1998; Martin 2001; Webster 2001; Zender 2004). Second tier settlement groups at Caracol were also linked to the site’s royal center through an elaborate network of roads, however the groups were dispersed up to

7.6 km away from the core and supported their own suburban populations, suggesting that local authorities at these minor centers submitted to a centralized rule but did not frequent the main court daily, and maybe possessed lateral control over their own immediate community (Chase and Chase 2003; Chase 2017). In contrast, minor centers at Tikal fall anywhere from just outside of to 10 km from the site's epicenter, and lack any joining infrastructure (Puleston 1983; Martin 2001; Chase and Chase 2003). This suggests an uneven and decentralized engagement between the court of Tikal and its secondary elites. Major polities in the Usumacinta region controlled wide webs of outlying satellite sites, but despite their distance, art and texts indicate that outpost aristocrats were closely incorporated into polity-wide government. Scholars have noted that nobility from minor centers were unusually prominent at sites like Piedras Negras and Yaxchilan, based on their frequent appearances in monuments and texts at both the primary centers and the secondary centers that the nobility hailed from (Chinchilla and Houston 1992; Zender 2004; Scherer and Golden 2009; Jackson 2013). It has been suggested that these expansive bureaucracies were a useful device for maintaining control in the broken, mountainous landscape of the Usumacinta region (Inomata 2001a; Jackson 2013).

Contributing to this heterogeneity is the diverse application of the term "minor center". Some minor centers seem to have been central residences of the principal lineages pertaining to major sites, while others appear to have been separate, pre-existing sites subsumed under a hierarchical relationship with major polities (Chase and Chase 2003). Minor centers in Belize were found to have served discrete functions; some housed hinterland elites, while others were used specifically for religious ceremonies, or for feasting (Iannone and Connell 2003; Connell 2003; Tourtellot et al. 2003). Bejucal, a minor center associated with El Zotz, proved to be the country house for the Pa'ka'n royal family in the Classic period, rather than a year-round home for other members of the court (Garrison et al. 2016). These are just a few possible scenarios

for second tier architectural groups, revealing how muddy our understanding is of Maya bureaucracy and the people involved in it.

From settlement patterns and architecture Mayanists established that palaces were not just elite residences but also the political headquarters for courtly business. High-end household groups around royal centers reflected the range of powerful lineages that contributed to the local court, while their arrangement on the landscape represented the structure of the court. The vast differences in how minor centers articulated with their political epicenters demonstrated that the internal organization of Classic Maya polities was extremely varied, with spatial organization ranging from strongly integrated secondary elite groups near their civic core, to scattered secondary centers with no linking infrastructure.

Material Culture

Status symbols and material wealth are often used to identify Maya nobility. Objects such as polychrome, carved, and fine paste pottery, jade, marine shell, flint and obsidian eccentrics, and stingray spines are commonly found in palaces, royal tombs, and state ritual deposits, so they are considered signifiers of political, social, and divine power. However, research on commodity distributions at Classic Maya sites confirms that most households, regardless of social standing, could have owned one of these status markers (Haviland and Moholy-Nagy 1992; Gonlin 1993; Palka 1995; Reed and Zeleznik 2015). A household's status was not indicated by whether the inhabitants possessed prestige goods, but by how many they possessed of each prestige good, how many different types of prestige goods they possessed, and where the prestige goods came from (Palka 1995; Haviland and Moholy-Nagy 1992; Reed and Zeleznik 2015; Gonlin 1993; M.E. Smith 1987). Thus, instead of using the presence or absence of prestige objects to assign status to households, Mayanists have found it more useful

to weigh the frequency, diversity, and source of prestige goods in a more holistic approach (a method that is also employed in this dissertation).

Because the distribution of prestige commodities does not provide an exact formula for identifying aristocrats, we must also consider what activities were unique to the nobility that can be traced in the archaeological record. Maya archaeologists have successfully filled in some of these blanks with the materials excavated from different sites, shedding light on what members of the court did to contribute to government. One of the most extensive artifact collections from a Maya court was excavated at Aguateca, a Late Classic site in the Petexbatun region of Guatemala that was rapidly abandoned on the eve of an attack. Elite residences along the causeway to the main palace revealed floor assemblages left behind by the Aguateca nobility immediately before they fled the city. Beyond the expected collection of domestic artifacts, archaeologists found evidence of exclusive crafting activities. Materials included conch shell ink pots, small mortars and pestles for preparing pigments, pyrite mosaic pieces, partially complete mirrors, reworked pyrite objects, worked bone, and polished stone axes. These items were used for painting intricate scenes, creating pyrite mirrors and ornaments, carving stone, and possibly repairing ritual garbs (Inomata and Stiver 1998; Inomata et al. 2002). Such crafts are uncommon household activities that produce objects not in wide distribution, suggesting that part of the role of the Aguateca elite was to create prestige objects for restricted circulation. The most exceptional object found was an alabaster diadem in the shape of the Maya Jester God, a symbol of kingship and the anthropomorphized form of the amate paper used in headbands worn by Maya rulers (Stuart 2012). This headpiece is worn by the king of Aguateca on public monuments, and similarly by rulers in the art of other sites (Inomata et al. 2002). Takeshi Inomata combines this evidence to suggest that the role of Aguateca nobles was not just to create high-status goods, but to also house and maintain royal regalia using their artistic skills.

Material evidence corroborating the elite role in artistic production also comes from Motul de San José and Buenavista del Cayo, where debris from polychrome ceramic workshops were identified in palace refuse. Deposits of ash, burnt clay chunks, wasters, polychrome fragments, smoothers, burnishers, polishers, and paint pots all confirm fine pottery was manufactured in the immediate vicinity of these royal courts (Reents-Budet et al. 2000; Foias and Emery 2012). Similarly, research into jade and pyrite production at Cancuen found that middle status household groups specialized in the early stages of manufacture, shaping jade and pyrite nodules into general forms, while high status households specialized in the final stages of production, carving and incising objects with royal and religious iconography (Kovacevich 2006). Brigitte Kovacevich argues that it was this final phase that turned jade and pyrite pieces from raw materials into holy objects, and that the capacity to transform items from mundane to sacred was unique to the nobility. All of these findings support an attached specialization model, wherein elites produced and thus controlled the distribution of restricted items, especially religious paraphernalia associated with divine kingship and state rituals (Reents-Budet et al. 2000; Kovacevich 2006; Foias and Emery 2012).

Interestingly, studies at Copan found the only symbols that were exclusive to royal and sub-royal households were objects referring to specific esoteric activities and knowledge that were likely restricted to high court officials (Gonlin 1993; Reed and Zeleznik 2015). Objects inscribed with texts, scribal implements, bloodletting instruments, and ball game paraphernalia were found strictly in palace excavations. This suggests that palace inhabitants were uniquely literate and well acquainted with state rituals performed by the king and his entourage. The trend at Copan is congruent with the exclusive ritual objects that were found in sub-royal households at Aguateca, and with the regal-ritual stone objects that only elites worked on at Cancuen (Inomata et al. 2002; Kovacevich 2006).

These datasets from the Maya Lowlands start to weave a picture of the elite in the Maya court. Sub-royals were responsible for creating and maintaining prestigious objects for the regency and selected individuals. Control over this production process allowed the court to develop a prestige economy and oversee the distribution of discrete rare esoteric goods, as well as valuable commodities that were broadly dispersed in low quantities (Ball and Taschek 1992; Foias and Bishop 2007). The types of objects exclusive to the nobility and royalty also suggest that these groups had a monopoly on certain ritual knowledge related to the creation and use of these sacred paraphernalia (Kovacevich 2006).

Art

While material remains are helpful for reconstructing the practices of court members, many activities and objects do not leave physical traces. This is where ancient art becomes particularly useful. Scenes on portable objects and monuments bring the world of ancient Maya politics to life by recreating diplomatic events, court proceedings, and political actors. In this sense art can help to fill in the gaps left by ephemeral practices, but that is not to say that artistic renderings can be taken as facts. Because fine arts were typically commissioned by royals and nobles (as confirmed in texts), the art was customized to enhance the reputation of local magnates (Reents-Budet 1994). As propaganda, these objects represented courts in a superlative manner, so we assume the scenes depict an idealized performance of courtly decorum, rather than reality (Houston et al. 2006; Baines 2007). Given that elite artisans were well acquainted with the rules governing political engagement, we can trust that these works of art were accurate renderings of model courtly behavior, but not necessarily of reality.

Between ancient Maya ceramics, monuments, and murals, archaeologists have a large corpus of imagery portraying Lowland politics. From these tableaus we infer some of the

standard activities and characters involved in Maya government. Accordingly, the primary duties of the king and his entourage included: meeting with visiting diplomats, receiving tribute, preparing for and performing ceremonies (such as dances and Period Ending rituals), convening with ancestors, playing the ballgame, preparing for and going to war, and processing war captives. In these scenes the king acts as the protagonist and is surrounded by individuals who typically interact with him or attentively watch what he does.

In palace settings the characters around the king can be sorted into generic categories based on their appearance and implements. Scribes are often singled out because they are easy to identify in Maya art by the writing instruments affixed to their headwraps and their associated paint pots, brushes, and codices (Figure 2-4) (Webster et al. 1989; Reents-Budet 1994; Coe 1997). Vases that depict scribes carving shells, painting masks, and making codices indicate that scribes were not just recorders but also artists. On top of this, scribes frequently present tribute and accompany their kings in rituals, suggesting they had a range of duties in the court beyond just craftwork. Like scribes, warriors are also identified by their occupational instruments (spears and shields), but they are mainly confined to captive presentations and war specific scenes (Figure 5-6). Another clear group of personnel in courts are musicians, who can easily be identified by the drums, rattles, and horns they play (Figure 7-8). Musicians appear in palace scenes where kings receive tribute and visitors, and in ritual scenes where rulers perform sacraments (Reents-Budet 2001). Another recognizable group in courtly art is of those with physical deformities, namely hunchbacks and dwarfs (Figure 8). It has been suggested that these individuals were selected specifically to serve kings because, unlike family members and nobility, disabled individuals posed no risk of competition to the king (Inomata 2001a). Like eunuchs in the Qing and Ottoman empires, or dwarfs and hunchbacks in the Benin and Aztec courts, these people were likely considered safe choices as aids to rulers because their

perceived weaknesses ensured they could not threaten the king, physically or politically (Inomata 2001a). Visually, these characters also exemplified the opposite of Maya beauty standards, thus making the king look good by comparison when the two figures appeared together (this is particularly clear in Figure 8) (Houston et al. 2006). Furthermore, physical deformities may have been seen as a supernatural mark, signifying a close connection to the otherworld. Modern Maya myths associate dwarfs with the underworld, and ancient Maya iconography show dwarfs and hunchbacks in a mythological realm dancing with gods (Miller 1985). Dwarfs were seen as supernatural intermediaries by many Mesoamerican cultures, dating back to the Olmec (Taube 1988). Furthermore, in palace scenes these characters participate in rituals and wear scribal attire, suggesting they served a crossover role as both visual devices and scribes.

Beyond these archetypes, the exact function or duties of different court members is hard to define by appearance alone. There is a broad class of nobles, both men and women, that appear in front of monarchs but that lack a uniform set of attributes (Figure 9-11). Their status is indicated by their more elaborate dress and paraphernalia, however these figures do not possess occupational instruments or standardized garbs. Moreover, they appear in a wide range of contexts. The same is true with attendants, a generic category of lower status, peripheral personnel who lack fancy adornments and wear minimal attire (Figure 12-13). Although these individuals also appear in many scenarios, they do not follow any evident dress code, and hold a range of objects. The lack of uniformity makes it difficult to assign a specific job or rank to these two types of figures. Unfortunately, it is these vague categories that make up most of the characters in Maya courtly art (after the king himself).

Beyond appearances, art historians and archaeologists have used spatial layouts and the placement of figures in frames to determine their roles in Maya courtly art. As with

architecture, people in close proximity to the king are presumed to have a stronger connection to him, one that provides them with close access, while people farther away were likely on the periphery of the king's circle (Houston 1998; Reents-Budet 2001; Jackson 2009). This rule of proximity is consistent with other markers of status in Maya art like clothing, jewelry, and hand gestures, confirming that the most prestigious characters are those nearest to the king, while the least esteemed personnel fan out to the wings of the scene (Anawalt 1981; Parmington 2003; Bishop and Cartmill 2021). Orientation and interlocution are also relevant here. Figures immediately in front of the king are the characters that he directly interacts with in a scene, unlike those immediately behind him, who just observe the interaction (Figure 5-13). Art such as this that is meant to exalt the king would likely portray him engaging with important individuals, so it can be assumed that the king's interlocutor is of high station. Figures to the back of the protagonist are not acknowledged by him, and typically stand behind a throne (Figure 8, 10, 12, 13). Although their location facing the king's back may suggest that these individuals were trusted in vulnerable spaces, many wear minimalist attire, suggesting low prestige. The combination of these factors indicates these characters could have been the king's trusted servants and valets. This spatial hierarchy that incorporates proximity and figure orientation assigns status to the different characters of the court in Maya art. General nobility, scribes, dwarfs, and hunchbacks engage directly with or stand close to rulers, indicating their prominent roles in the court, while musicians and general attendants hang back on the peripheries, with the exception of the trusted attendants directly behind the ruler.

Realistically, each of these archetypes is just a general category within which there were likely internal ranks or distinctions. This is evident in scenes with military personnel. In a single composition an assortment of warriors will stand both near and far from the elite protagonist, but it is clear from the additional adornments and headdresses of soldiers near the protagonist that

internal ranks existed within the warrior category. Unfortunately, there are not enough standardized attributes within each category to define clear sub-groups that might correspond to unique offices or levels. Internal orders within generic character categories have been identified in cases like the *taaj* – a category of Maya noble for which multiple lines of evidence were discovered, lending weight to the likelihood that the same existed for other character types in Maya art (Saturno et al. 2017).

It is apparent that the characters named above are just a few of the roles that existed within Maya courts. Scribes and warriors were broad categories within which there were likely many different positions, while the vague elite and servant categories are catchalls for what was probably a very complex system of social roles and political duties. Unfortunately, art is limited beyond this point. Because Maya fine art centers around portraying rulers, the information we can glean about individual actions and life events is restricted to Maya kings. Much less emphasis was put into defining sub-royals, hence the use of generalizing categories to study these figures.

Epigraphy

Where art reaches its limit to inform the viewer, text comes to our aid, often literally, as captions are paired with Classic Maya art to provide historical context for the tableaus. Maya archaeologists rely heavily on texts that discuss historical figures with hierarchical and titular statements in order to outline positions in Classic Maya courts (Houston and Stuart 2001; Houston and Inomata 2009; Jackson 2013; Rossi et al. 2015). These studies have identified a number of titles within the Maya nobility and used associated imagery to glean contextual information about their designated duties and powers. As epigraphic studies develop rapidly, data continues to come out regarding the latest title translations and interpretations. This

research revises previous understandings of the most common labels like *ajaw*, *sajal*, *ajk'uhuun*, *ti'sakhuun*, and y*ajaw kahk'*, and suggests possible translations for others (for thorough treatises on this subject see: Inomata 2001a; Zender 2004; Houston and Inomata 2009; Jackson 2013; Saturno et al. 2017; Martin 2020). Even so, Maya inscriptions rarely discussed non-royal individuals, so most interpretations are restricted to a short list of titles for which enough data exists. A further limiting factor is that offices seem to have functioned differently in each court.

The earliest known title from Maya texts is *ajaw* (Saturno et al. 2006). This designation had humble origins as a general honorific referring to a local individual of authority, typically glossed as "lord". In the Early Classic, *ajaw* appears to have been a nonexclusive term that could be applied to royal and non-royal elites alike, however its fluidity changed at the end of the Early Classic with the addition of the *k'uhul* prefix (Martin 2020). *K'uhul ajaw*, or "divine lord", clarified a hierarchy where the *k'uhul ajaw* was the king of a polity, and other *ajaw*s were lower lords that maybe oversaw specific districts, but served the *k'uhul ajaw* (Inomata 2001a; Christie 2003; Jackson 2013). In the Late Classic, a distinction of "head lord" or *baahajaw* was added to distinguish the top lower *ajaw*, signaling a burgeoning of *ajaw*s, while *kaloomte*' appeared as a superordinate title referring to the highest of rulers from political superpowers like Tikal and Calakmul (Inomata 2001a; Martin 2020).

Below rulers, the highest post known thus far is the *ti'sakhuun*. This title roughly translates to "speaker of/for the white headband", but has more loosely been deciphered as the speaker for the crown, or oracular priest (Zender 2004). Individuals with this honorific seem to have had the ability to act as a stand in for the king. *Ti'sakhuun*s performed Period Ending rituals, played in the ballgame, and supervised the accession of young monarchs (Zender 2004). The role of the *ti'sakhuun*s was particularly important when very young rulers took the

throne and *ti'sakhuun*s acted as regents, stepping in to perform rituals in place of the young ruler. This is the only scenario in which a sub-royal elite ever appears on a monument at Tikal. In the early 6th century, a *ti'sakhuun* oversaw a Period Ending ritual in place of the young Lady of Tikal (Zender 2004; Martin 2020). Similar events play out at Tonina, where the *ti'sakhuun* K'elen Hix oversaw the reign of a 9-year-old king. This is the only time when a sub-royal elite added the *k'uhul* prefix to their title, inferring that K'elen Hix was of divine status in the same way as *k'uhul ajaw*s. These exclusive duties and honors suggest that *ti'sakhuun*s functioned as intermediaries between the crown and the public, acting on the throne's behalf above all other offices. However, despite the evident power of this position, the honorific did not appear as often as others in texts.

One of the most common courtly posts mentioned in Maya texts was the *sajal* (Stuart 1985). This functionary is interpreted as a governor of either urban districts within major capitals, or of satellite sites that were subordinate to a primate center (Houston and Inomata 2009; Jackson 2013; Simon 2020). Both of these versions of the *sajal* post frequently existed coevally at the same site, indicating the flexibility of the *sajal* title. This reflects the same variation previously discussed within the category of "minor centers"; sub-royals could either be part of a sea of elites at cosmopolitan centers, or could rule their own satellite sites in the provinces. Notably, the *sajal* is the only title that governed over specific places and possessed its own sense of rulership (Martin 2020). *Sajals* are also frequently associated with warfare, as they are depicted in war related scenes and are typically referred to in texts by the number of captives they have taken (Jackson 2013).

An equally common title in Maya texts was the *ajk'uhuun*, translated as "he of holy books" or "he who venerates" (Jackson and Stuart 2001; Zender 2004). Signatures of artists with the *ajk'uhuun* designation and *ajk'uhuuns* tagged in iconography holding codices, paint

pots, and writing implements indicate that this role involved painting, sculpting, and writing, and many of the scribe characters in Maya art were likely members of this office (Stuart 1989; Coe 1997; Zender 2004). It is also believed that *ajk'uhuuns* served as priests. The earliest representations of this role showed *ajk'uhuuns* attending important Period Ending rituals and performing incense scattering rites. *Ajk'uhuuns* are regularly depicted with ritual instruments, namely sacrificial knives and incense bags, and even dressed royalty in preparation for ceremonies (Zender 2004; Houston and Inomata 2009). The scribal and religious aspects of the *ajk'uhuun* may at first seem unrelated, but scribes were in charge of recording the time cycles on which the Maya ritual calendar was based. Scribal monkey deities depicted on architectural facades and polychrome ceramics portrayed the supernatural origins of scribes (Webster et al. 1989; Coe 1997). Yet the *ajk'uhuun*'s role was not purely as a literati. The proximity of these individuals to the king in court scenes indicates they were close advisors to the king. This is further supported by architecture at Palenque, where the quarters of the celebrated *ajk'uhuun* Aj Sul connected directly to the royal throne room (Zender 2004). So it seems the *ajk'uhuun* was as much a trusted political advisor as he was a spiritual leader.

While there were undoubtedly many more offices in the priesthood, the rest are mentioned infrequently in texts or lack clear responsibilities. Another powerful position was the *itz'in taaj*, who also oversaw various rituals and stood in close proximity to royals. The senior version of this role, *sakun taaj*, was possibly an instructor and mentor to young heir apparents, but was rarely mentioned in texts (Saturno et al. 2017). There are also some priestly titles that seem to serve specific ceremonial purposes, like *yajaw k'ahk'*, which performed war related rituals (Zender 2004). *Ah naab*s appear to be lower ranking members of the priesthood who stand on the periphery of ritual scenes and help prepare lords for ceremonies (Miller 2001; Zender 2004).

A few titles have also been roughly translated to functional jobs within the court, such as *ebeet*, or messenger, *ba te'*, or bailiff, *baahtz'am*, or attendant to the king, *lakam*, or standard bearer, and *ah ts'ib*, or artist (Coe 1997; Houston and Inomata 2009; Martin 2020). These individuals regularly appear on the periphery of court scenes and occasionally close behind the king, suggesting that they performed a supporting role as court staff and servants.

Despite these distinctions in titles, many of the responsibilities of each post overlapped (Jackson 2013). *Sajals* could also be depicted assisting in rituals, *ajk'uhuuns* took captives in war, and both designations could be awarded the additional honorific of *yajaw k'ahk'*, a warrior priest. This overlap demonstrates just how intertwined Maya religion and politics were; as a system of governance based in the writ of divine will, politics was religion. Governors needed to perform sacraments and priests needed to supervise diplomacy. At the same time, this demonstrates the flexibility of Maya titles. Offices could be adapted to provide whatever support was needed by the king, and there are multiple cases in which minor titleholders excelled to hold great local positions of power (Tsukamoto et al. 2015; Tsukamoto and Esparza Olguin 2015; Martin 2020). This may be why holders of the same designation lack a standardized set of attributes when portrayed in art. Furthermore, there are clear regional differences in the treatment of non-royal elites. While the names and titles of nobility are enumerated in texts from the Usumacinta region, Copan, and pockets of the Yucatan Peninsula, they are conspicuously scarce in the central Peten (Jackson 2013). It is difficult to say if formal offices were actually rarer in the central Peten, or if the nature of sub-royal titles was just more restricted in this area. In the latter case it could be that the status of administrative and ecclesiastic roles below the king was deliberately limited, or simply that artistic canons did not permit the glorification of non-regnal individuals (Houston and Stuart 2001; Jackson 2013). In any case, the treatment of sub-royal positions was highly variable across the Maya Lowlands in time and space.

The *ti'sakhuun*, *sajal*, and *ajk'uhuun* titles were bestowed by rulers onto select devotees, and the induction process mirrored the same one that rulers went through for their own coronation. In most cases sub-royal posts do not appear to have been hereditary, however there are a few rare examples of family dynasties holding on to certain designations (see discussions of the Kutim, Kimi, Mak'an Chanal, and Ajpach' Waal families: Zender 2004; Jackson 2013; Martin 2020; Webster et al. 1989; Tsukamoto et al. 2015). Offices appear to have been lifetime appointments, so title holders retained their status even when power changed from one king to the next (Jackson 2013). Individuals could also hold multiple designations at once, with each new role presumably signifying additional duties and privileges. Additionally, the *baah* prefix, translated as "first" or "head", could be added to elevate the premier member of a certain title when multiple people possessed the same title, such as the *baah sajal* that leads a line of *sajals* on Panel 3 of Piedras Negras. High ranking officials could also possess their own administrators of lower rank, in the same way that Maya kings possessed their courtiers. Based on these textual clues, the current interpretation of internal hierarchy goes as follows: *ti'sakhuun*, *yajaw k'ahk'*, *sajal*, *ajk'uhuun* (Martin 2020). However, it is important to note that officials did not receive each of these titles in a set sequence, and people often jumped multiple steps when "promoted". Beneath these major players were the individuals that evidently served minor ritual and political roles, such as the *lakam*s, the *ah naab*s, the *ba te'*, the *baahajaw*s, and the *baahtz'am*s.

One of the greatest difficulties of interpreting titles from texts is the lack of material corroboration. Rarely have archaeologists been able to tie the non-royal individuals named in texts to their actual homes or physical remains (see Rossi et al. 2015 for example). This creates a significant disconnected between the textual and material record, as it becomes almost

impossible to confirm the information gleaned from elite inscriptions, or to build towards reconstructing the real life of Maya politicians.

Ethnohistorical Texts

Much of what we presume about Classic Maya government structure was taken from later indigenous accounts. Although extant Classic Maya inscriptions have a very limited scope, a rich textual record from Postclassic indigenous documents and colonial accounts of the Maya has provided some hints to how the Classic Maya court may have functioned. Postclassic Maya codices, the Books of Chilam Bahlam, and the Popol Vuh have steered archaeological understanding of Classic Maya cosmology, astronomy, calendrics, religion, and mytho-history, while legal records of disputes and land settlements give insight into the secular administration that guided Postclassic everyday life (McAnany 1995). Ethnohistoric texts documenting Maya society for European audiences from the 16th century onwards provide a removed perspective of the civilization, describing various local practices in detail, but through a Western lens (McAnany 1995). Finally, Mayan dictionaries, both historic and modern, have become a critical resource for epigraphers to translate unknown expressions from Classic Maya texts, using either direct cognates or the roots of modern and colonial words to grasp the meaning of ancient words and phrases (McAnany 1995; Zender 2004; Jackson 2013; Martin 2020).

Most of these sources come from the Maya Highlands of Guatemala and Chiapas and the northern Lowlands of the Yucatan Peninsula, and historical sources can date to as late as the 19th century. In the Late Postclassic, Maya polities reorganized into smaller rival city-states, and with the conquest of the Spanish most of these reorganized yet again in the *encomienda* system. Given the spatial and temporal disjunction, archaeologists must be careful when transposing social systems from the Postclassic and Post-conquest Maya onto southern

Lowland Classic Maya courts. Other data sources (architecture, materials, art, and epigraphy) should be cross referenced to see if patterns from Classic datasets are consistent with what one would expect to see if the Postclassic constructs in question had existed during the Classic period (Fash and Sharer 1991).

Culture is constantly adapting and changing, nevertheless the central tenets of a belief system endure even if they manifest in new ways (Fischer 1999; Carrasco 2013). Maya culture is no exception to this, and many modern aspects of Maya society and beliefs existed as well for the ancient Maya (Vogt and Stuart 2005; Freidel et al. 1993). Although political and economic systems may fall apart and give way as societies change, cultural systems can persist over centuries with the same core beliefs and day-to-day practices (Cowgill 1988; Demarest et al 2004; Carrasco 2013). Thus with careful application archaeologists have successfully interpreted Classic texts and phenomena by tracing post-conquest concepts back to pre-conquest practices (Wauchope 1938; Taube 1992; Marcus 1992; McAnany 1995; Zender 2004; Houston et al. 2006; Stuart 2020).

The continuation of ancient Maya beliefs over time is clearly demonstrated through analysis of the Popol Vuh. The Popol Vuh tells the story of the Maya Maize God and his sons, the Hero Twins, who save him from his imprisonment in the underworld (Tedlock 1996). The Hero Twins have a variety of adventures that function as allegories, where the twins represent the idealized version of a leader; they choose humility over ostentatiousness, comportment over anger, and cunning over arrogance. In the 1970s Michael Coe realized that the stories of the Maize God and Hero Twins from the Popol Vuh were illustrated on Classic Maya vases, and that these myths could be definitively traced back a thousand years before the Popol Vuh was written (Coe 1973).

An often-forgotten aspect of the Hero Twins' story are their older half-brothers, who shed light on the role of familial competition in Postclassic (and Classic) Maya regimes. Before being imprisoned in Xibalba, the Maize God was married to a women named Xbaquiyalo and had two sons with her, One Monkey and One Artisan. One Monkey and One Artisan were described as "great knowers" as well as talented artists (Tedlock 1996:102); they were musicians, singers, writers, sculptors, and jade workers. However, when their father had children with another woman, One Monkey and One Artisan were very threatened by their younger half-siblings. They attempted to leave the young children for dead, and when that was not successful, One Monkey and One Artisan treat them miserably. Eventually the Hero Twins outwit One Monkey and One Artisan and turn them into monkeys for their poor behavior. Although the first sons of the Maize god live out their remaining days as monkeys, they continue to produce art and become the scribal monkey gods of the arts in Classic Maya iconography.

The anecdote of One Monkey and One Artisan is not the main emphasis of the Popol Vuh, however it suggests an interesting parallel with the family dynamics of Maya kings. The Maize God took multiple wives and as a result had multiple sons, similar to Maya kings who married multiple royal and noble women as consorts. This situation engendered jealousy and competition between the sons of different wives, and in the Popol Vuh the Hero Twins were ultimately forced to put their half-brothers in their "rightful place". After being turned into monkeys One Monkey and One Artisan continued to be great artists and intellectuals, as they had trained to be their whole lives, however they ceased to be competition for the Hero Twins.

The story in the Popol Vuh is a direct reflection of the competitive dynamics between the potential heirs to the throne who came from different parental lines in Maya courts (John Pohl, personal communication 2022). The myth also demonstrates how potential heirs grew up learning arts and scholarship, and that the appropriate role for royal sons who did not take the

throne was as artists and sages in the court (John Pohl, personal communication 2022). Although the Popol Vuh is an idealized version of the rules of comportment in Maya society, the sons of kings in Postclassic Yucatan did traditionally take on roles as scribes, artisans, and priests (Tozzer 1941).

In Postclassic Yucatan, elite lineages were referred to as *tzucub* (Ringle and Bey III 2001). At the same time, in mytho-historical records there were always multiple lineages of this designation, leaving room for social and political competition. Competition between ancestries is exemplified by the Xiu revolt at Mayapan, when the Xiu lineage slaughtered the ruling Kokom lineage, effectively dismantling the Mayapan hegemony (Tozzer 1941). It was after this point that people in the Yucatan Peninsula separated into smaller territories, and members of elite lineages formed independent city-states governments (Roys 1943).

Ethnohistoric documents indicate that the Late Postclassic political hierarchy had three tiers: the *halach uinic* as the ruler, below him the batab, and below that the priesthood (Roys 1943; Zender 2004). The *halach uinic* acted as both the head of state and as high priest of his province, similar to our understanding of Classic Maya *k'uhul ajaw*s (Zender 2004). He reigned over his territory from a primate center where his court was located, and received tribute from the towns within his jurisdiction (although not all regions were overseen by a *halach uinic*) (Ringle and Bey III 2001). Municipal govenors, called *batabob*, presented the tribute gathered by lineage heads to the *halach uinic* and were in charge of civic affairs on a regional or town scale (Ringle and Bey III 2001; Zender 2004). *Batab*s were also heads of military and mimicked the actions of the *halach uinic* on a reduced scale by performing ritual ceremonies and civic duties at secondary centers (Zender 2004). The *batab* had numerous functionaries below him to assist in overseeing the administration, and he replicated his own version of the royal court to a lesser degree with his various vassals (Ringle and Bey III 2001). Unfortunately, the titles and

duties of these tertiary positions were not standardized across towns or territories, making it difficult to outline the Late Postclassic bureaucracy beyond the secondary level.

Detailed studies of the Late Postclassic priesthood clarified the role of ecclesiastics in Postclassic government, and hint at how the religious offices of the Classic period may have similarly operated. The *halach uinic* held the highest title within the priesthood, but below him were several different task-specific offices. The *chiilan*, or prophet/interpreter, could act as a representative for the high priest and communicate messages to his parishioners from the gods, not unlike the *ti'sakhuun* of the Classic period (Zender 2004). The *nacom*, or executioner priest, sacrificed captives taken in battle, a job that may have derived from the *yajaw k'ahk'* (Zender 2004). Furthermore, ecclesiastics acted as doctors for the community, curing through local herbs and selective bleeding (Tozzer 1941). Clerics were recruited from noble lineages and royalty not in line for the throne (Tozzer 1941). Priests learned the exclusive skills of reading and writing and were tasked with recording elite genealogies and ritual almanacs, as well as teaching this knowledge to young noble neophytes (Tozzer 1941; Roys 1943).

These details about the role of Postclassic priests and administrators are far more specific than any that we have from the Classic Maya. Using later models is helpful for conceptualizing the specific duties that could have applied to Classic Maya titles, especially those duties not named in the scope of elite propaganda. However, while it is tempting to assign Postclassic equivalents to Classic Maya offices, the two situations are not equal (cf. Fash et al. 1992). Postclassic analogies are a helpful point of comparison, but the political structure of Postclassic Yucatan undoubtedly changed over the five to six centuries from the end of the Late Classic to the Late Postclassic, especially considering there was significant population displacement and political reorganization within that time. For this reason, ethnohistorical

information must be used with caution, and should be evaluated against other sources of data before being applied to Classic Maya scenarios.

Combining Data Sources

It must be reiterated that each of these data sources is, on its own, not enough to interpret the role of sub-royals in Classic Maya courts. Relying on single lines of evidence can be misleading; physical remains alone leave many unknowns, while art, epigraphy, and ethnohistoric records are distorted by the objectives of the patron and artist. For these reasons it is necessary to use a wealth of resources to interpret Classic Maya court contexts.

An ideal example of the interplay of these data sources comes from Xultun in the Peten region of Guatemala. Xultun is the Classic period counterpart to San Bartolo, where the famed Preclassic San Bartolo murals were discovered (Saturno et al. 2005; Taube et al. 2010). A unique situation presented itself at the Los Sabios group of Xultun, leading to the discovery of a new title in the roster of Maya court offices. Excavations at Los Sabios revealed an unusually clear understanding of the formal duties that came with this designation due to the combination of data sources available to pull from.

Los Sabios is a Classic period group located near the ceremonial core and the royal palace of Xultun, close to activity of the Late Classic court (Rossi et al. 2015). The group is composed of vaulted masonry structures with interior benches set around four patios, in an arrangement similar to elite households at Tikal, Copan, and Caracol (Rossi et al. 2015). The placement and construction quality of this group's architecture suggest that it was occupied by an extended family with a need to be centrally located and significant resources and labor forces at their disposal.

The materials recovered from ritual deposits in Structure 10K2 were suggestive of craft production at Los Sabios. In Burial 7 at Str. 10K2 a man was interred holding a bark beater and stucco smoother in his hands, both of which are uncommon tools in Maya residences (Rossi et al. 2015). A similar bark beater was placed under a floor in the same structure and several stucco smoothers were recovered just outside. These tools are consistent with paper production, possibly for codices, and their placement in ritual contexts suggests that this craft was part of the identity of the residents. Comparable deposits at Cancuen, where jade workers buried jade nodes and shaping tools in caches and burials, indicate that lineages could incorporate their craft specialization into their identity (Kovacevich 2006). Interestingly, Burial 11 of Str. 10K2 was adorned with two circular discs coated in white stucco and painted with now eroded pigments. One of the discs was perforated, suggesting it could have been worn as a pendant.

The most illuminating find in Str. 10K2 were the murals of the middle room. The walls were coated in stucco and painted with an extraordinary palace scene of four figures seated in front of the Late Classic Xultun ruler Yax We'nel Chan K'inich (Saturno et al. 2017). In this scene Yax We'nel Chan K'inich wears a scorpion tail and impersonates the deity First Wind-Maize of Obsidian, associated with agricultural fertility and sacrifice (Figure 14). The subordinate figures in front of Yax We'nel wear circular white pendants around their necks and identical pendants on their headdresses. These ornaments appear exactly the same as the ones found in Burial 11, leading Rossi and colleagues (2015) to conclude that the person in Burial 11 held the same office as those in the mural.

The walls of Str. 10K2 were coated in the same stucco used to prime codex paper, and scrawled with inscriptions and illustrations in the same color palette used for Maya codices. The walls were scribbled with calendar dates and calculations, a partial eclipse table, and references

to stars in the constellation of Orion, almost as if the walls were used as scrap paper for solving celestial equations (Rossi et al. 2015). Such texts are similar to the contents of Postclassic codices, suggesting that the people that wrote on the walls of Str. 10K2 most likely composed Classic codices as well. This coalesces nicely with the tools found for paper making during excavations, and the overlap of stucco and pigments used in both the murals and in ancient manuscripts. The presence of murals and prophetic writing in the same space also confirms that the scribes who decorated these walls were just as much artists as they were diviners (Rossi et al. 2015).

Two of the four subordinate figures in the Los Sabios mural were tagged with the formal title *taaj.* A survey of Classic art and texts reveals other examples of *taaj* wearing white pectoral discs and witnessing as well as perfomring ritual dances, bloodletting ceremonies, scattering sacraments, and accession rites. One *taaj* at La Corona was even the *tis'akhuun* for the *kaloomte*', essentially the highest honor below the *kaloomte*' himself (Saturno et al. 2017). These comparanda establish that *taaj* was an elevated position within the priesthood responsible for overseeing state rituals. Prefixes in front of the title even indicate an internal hierarchy of *taaj* with separate duties. The junior *taaj* is always the individual that partakes in rituals, while the senior *taaj* always accompanies young royals and nobles. The senior *taaj* "belong" to these youths, and only appear in reference to their masters (Saturno et al. 2017). Similarly, in the Los Sabios mural, the senior *taaj* sits in front of two young disciples while the junior *taaj* kneels in front of the king as the king performs an impersonation ritual. WIllliam Saturno and colleagues (2017) suggest that the role of the senior *taaj* may have been to instruct and guide young elites, as was the job of priests in the Postclassic, while the junior *taaj* performed the more visible functions of the office. If so, this would be the first confirmed order

within the Classic priesthood that had internal rankings and divisions of labor (Saturno et al. 2017).

In Colonial Yucatec dictionaries *taah* translates to “prayer or writing”, and *ta taah*, or “of the taah”, refers to “a work; writing; sermon;…” . Most significantly, ah taah, or “he of taah”, translates to “a representative who speaks with fluency and eloquence”, suggesting that the title of *taaj* may have referred to someone who spoke publicly, prayed, and probably delivered sermons or recited sacred prose during rites (Saturno et al 2017). Clearly this office carries religious connotations as well as scribal ones, confirming that the *taaj* designation was likely an office in the priesthood involving oration and literacy.

This study of a specific sub-royal group provides an example of how data from a wide range of sources can be compiled to form a detailed picture of a Classic Maya sub-royal office. The setting and construction of Los Sabios suggested it was occupied by a high status lineage, while the excavated materials indicated that the occupants were craftspeople producing gesso primed paper. The attire of buried individuals matched the attire of specific characters in the murals at the group, while epigraphic records verified these characters were ritual specialists and teachers to young nobles. Colonial dictionaries translate the title of these characters to mean orator, associated with writing and prayer. Such associations are consistent with the occupants of Los Sabios, who wrote out calendrical calculations and astronomical movements on the walls of Str. 10K2, and who possessed the stucco and pigments to make codices. Combined, the data suggest that the occupants of this group were members of the *taaj* order, the depicted ritual specialists who were in charge of producing sacred manuscripts.

Summary of Late Classic Maya Aristocracy

Unfortunately, a scenario in which all of the above findings appear in the same context is exceedingly rare in Maya archaeology. Nevertheless, the research at Los Sabios demonstrates the importance of combining different types of information to gain a complete picture in any archaeological interpretation. Data from architectural, material culture, artistic, epigraphic, and ethnohistoric studies are essential to identifying Classic Maya aristocrats and understanding their role in Maya government.

By using a diversity of sources Mayanists have been able to determine what role the court played as a political body, who was part of the court, what were the tasks of members of the court, and where members lived. Art and texts confirm that Classic Maya kings engaged in a range of diplomatic, administrative, military, and cosmogonic maintenance activities. Inside their throne rooms potentates formally received representatives from other polities and tribute from their subject territories. Outside in public ceremonial spaces rulers performed rituals that were critical to centering and continuing world order, such as Period Ending ceremonies, god impersonation dances, and accession rituals. On the competitive field kings played the ballgame, which carried religious undertones, and fought in actual battles for political supremacy. While monarchs performed these duties, their court assisted them.

In addition to playing a supporting role in the above activities, elite courtiers created select goods to reinforce a prestige economy, and fashioned and maintained sacred objects for state rituals. The priesthood performed calendric calculations and made prophecies which were used to guide the king and the polity at large, and most likely instructed clerical recruits and young nobility. One area in which many members of the court were likely competent was reading, if not also writing. Given how central inscriptions were to Maya courtly material culture, and given how many scribes were needed just to create the textual record that still survives,

literacy was no doubt central to court life (although this is a very small subset of the overall population). Aside from esoteric activities, some courtiers also administrated their own constituencies and controlled their own labor forces, as evidenced by the public monumental constructions at satellite sites. These duties were localized, but also fed into a larger state bureaucracy, contributing to royal matters such as tribute collection. Finally, some members of the royal entourage would have been advisors to the king. As a conversational, behind-the-scenes act, advising is not expressly mentioned or depicted in Classic Maya materials, perhaps because it might undermine the concept of the divine, autonomous pilar. However, when supervision was needed, as in the case of very young rulers, queens and *ti'sakhuun*s provided guidance as regents directly. In the case of adult kings, non-royal influence would have been kept latent. Evidence such as a passage at Palenque linking the personal quarters of an *ajk'uhuun* to his king's throne room suggests private contact between the king and select sub-royals (Zender 2004). Similarly, priests shared intimate space with kings before rituals, as shown in tableaus where *ajk'uhuuns* dress their rulers for ceremonies. Priests in the Late Postclassic and cross-culturally are often royal counselors as they can use their predictive powers and astronomical knowledge to guide rulers towards favorable outcomes. While these examples relate specifically to the clergy, it is probable, that the king took advantage of his different supporters for their assessments of various political situations.

Given the privileged access and duties of the Maya nobility, the qualifications to be in this group of political actors were restrictive. Office holders in Maya government were typically royal family members or members of other prestigious, deep-rooted lineages. Such officials supported the king by assisting in divine sacraments, running local bureaucracy, and performing functional jobs for the court. Positions in the priesthood included *Ti'sakhuun*, who acted as a proxy for the king, *ajk'uhuun*, who performed state rituals, *yayaw kahk'*, who executed war rites,

taaj, who produced codices and instructed young elites, and *ah naab*, who assisted in minor tasks for ceremonies. Priests in general could be scribes and artists, and occasionally had physical deformities of possible supernatural significance. *Sajals* presided over specific locations within a polity and provided military support for the king. These high-level courtiers could hold multiple positions at once, and titles were not mutually exclusive. Lower-level courtiers could have designations but usually were not named, and rarely demonstrated political influence. Among lower-level courtiers, warriors and *ba te'*s (bailiffs) assisted on the battlefield, *ebeet*s (messengers) and *lakam*s (standard bearers) presumably carried messages between courts, and court staff (like *baahtz'am*s) maintained the royal household. However, the Maya did not distinguish between supernatural and earthly spheres, and any title could appear in a religious, military, or diplomatic context.

The relationship between the Maya nobility and their king depended in part upon their location. The homes of the non-regnal elite were typically identified based on the size and quality of their architecture and construction materials used (Inomata and Triadan 2003). At some southern Lowland sites non-royal palaces were built close to the royal court, which would have facilitated close interaction with the royal family and regular involvement in court activities (Webster 2001; Inomata and Traidan 2003). In some cases, such as at Caracol, non-royal palaces could be far-removed from the royal court but were integrated with state-level infrastructure, indicating kings intentionally incorporated local aristocrats (Chase and Chase 2001; Martin 2001). In contrast, the Tikal court did not sponsor public works projects to link sub-royal residences beyond the site epicenter to the royal palace, even though many of these residences were scattered and remote from the royal palace (Martin 2001; Harrison 2003). Similarly, the major courts of the Usumacinta region consisted of scattered nobility who ruled over their own satellite sites (Chinchilla and Houston 1993).

The considerable variability in how secondary elite residences articulated with royal palaces from site to site reflects a larger heterogeneity in the way that individual polities were structured. If the internal political organization and hierarchies at Classic Lowland sites were each structured differently, then they most likely behaved differently as well. For this reason small-scale, site based analyses are ideal for building towards a better understanding of broader regional patterns of Maya government.

Although architecture, materials, and art confirm that non-royal elites were omnipresent in Maya courts, these individuals were only mentioned by title and name at a select number of sites. Overall sub-royals were most prominent in the court records at Copan, Palenque, Piedras Negras, Yaxchilan, and Tonina. *Ajk'uhuuns* were celebrated particularly at Palenque and Tonina, while *sajals* were highlighted at Piedras Negras, Palenque, and Yaxchilan (Jackson 2013). Conversely, non-royal names and titles were rare in texts from the central Peten. However, this does not necessarily mean that elites did not hold offices in the central Lowlands, as evidenced by anomalous records from Tikal, Calakmul, La Corona, Naranjo, and Motul de San José (Zender 2004; Jackson 2013; Rossi et al. 2015).

It is possible that fewer members of the nobility received formal designations in the central Peten, and instead aristocrats performed supportive duties for their court without an official title. Conversely, the dearth of written references to office holders in the central Peten could reflect regional differences in rhetoric (Houston and Stuart 2001; Jackson 2013). What was considered appropriate public content may have varied in different parts of the southern Lowlands, and perhaps in the central Peten it was unsuitable for the king to share their stage with lower-status individuals in courtly art and inscriptions. Simon Martin (2020) notes that the central Peten was heavily influenced in the Late Classic by the Tikal and Calakmul superstates and posits that these hegemonies may have intentionally limited the positions of secondary

elites to constrain political control. It is difficult to determine which, if any of these theories is the real explanation behind the geographic variation of secondary elite titles. However, a starting point toward answering this question would be to learn more about the unnamed nobility of the central Peten. Here excavations at the homes of the El Zotz nobility prove useful for learning about Late Classic Maya government and the people who influenced it. In the following dissertation I will examine the possible residences of the secondary elite at El Zotz in order to determine their role in the local court and how they negotiated their political position.

3. RESEARCH APPROACH

Defining the Upper Class

Status is a notoriously difficult subject to broach as social standing can be based on a range of factors, each of which is valued differently in every society, and all of which must be weighed together from an emic perspective in order to determine a person's position in a given culture. When speaking of status there is typically an interplay of economic wealth, political power, ideological supremacy, and control of labor forces that contribute to power and prestige. These factors rest on top of biological ones that often dictate an individual's station in society, such as sex, age, and disability, as well as fixed and fluid cultural constructs, like race, ethnicity, gender, and caste. With all of these elements contributing to an individual's social standing, status becomes an inherently messy subject that archaeologists define only in vague terms (M.E. Smith 1987; 2015). This subject is further entangled by attempts to apply strict modern definitions of stratification and class to ancient societies, many of which are at odds with one another, including Marxist, Weberian, and Simmelian theory (Rathje 1972; North and Thomas 1977; Spriggs et al. 1984; Leone et al. 1984; Appadurai 1988; Steinberg 1997).

Because of the challenges of assigning status, I will not attempt to define each lineage group's exact rank or title within the Pa'ka'n hierarchy. Rather, I will examine the practices of each group to see how their behaviors compared to the royal family, to one another, and to non-elite occupants of the Buenavista Valley. Similarities between the practices of different parties will reveal how closely each lineage group identified with the royal family versus each other, or commoners not related to the court. Moreover, choices made by local aristocrats to behave differently than the royal family may reflect strategic maneuvers for social or political gain. A focus on practices rather than definitions will help to identify secondary elites around El Zotz, and reveal how different nobles engaged and associated with the central court of El Zotz.

Practices reflect a social group's position in society, and though it may be too difficult to parse out a family's exact rank, actions hint at how families situated themselves within the Maya court, and what strategies they pursued for success.

Practice Theory

Practice theory is based on Pierre Bourdieu's concept of habitus. Habitus is an individual's dispositions, the internalized structures that order that individual's world and dictate that individual's behaviors (Bourdieu 1972). These underlying organizational principles are regularly acted out through a person's praxis, which in turn reproduces these social structures on a daily basis in society (Bourdieu 1972). According to Bourdieu, cultural norms are learned unconsciously through socialization and then embodied and enacted in a person's daily activities, including their interactions with others. The concept originated from Émile Durkheim's "collective consciousness", a society's set of shared morals and beliefs (1964). Marcel Mauss (1973) argued this collective consciousness could manifest in bodily movements, an idea that Bourdieu applied to the new dilemma of structure versus agency in sociological theory.

At this time a philosophical backlash was rising against old schools of thought, which focused on underlying social structures as the principles that dictate how a society behaves (Ortner 1984). Theorists pointed out that humans have agency and are not ruled blindly by a set of supreme, predetermined principles (Bourdieu 1972; Sewell Jr 1992). Bourdieu's contribution to this discussion was the suggestion that humans reproduce social structures through their daily actions (their habitus), but that there is also a reciprocal relationship between structure and agent, as structures need to be constantly recreated by agents in order for them to be internalized and inadvertently taught to new members of society (Bourdieu 1972). Anthony Giddens pushed the power of the agent further, positing that both agent and structure

possessed equal power to affect one another (Giddens 1984). Giddens' theory of structuration acknowledges the formative role of structures on an individual's habitus, but also allows for individuals to evaluate their own actions and make strategic changes to obtain different results (Giddens 1984). These changes then alter the larger social system, rewriting the underlying structures. If individuals choose to modify their behaviors, then there is a ripple effect that modifies their society's governing principles. The idea here that underpins practice theory is that people's daily practices define them, and these practices are a window into broader social phenomena.

The importance of this theoretical development did not escape anthropologists. Practice theory was quickly incorporated into anthropological theory (Shanks and Tilley 1987; Hodder 1991) and applied to studies of cultural contact (Sahlins 1981; Lightfoot et al. 1998; Silliman 2001), craft production and technological processes (Lemmonier 1986; 1992; Stark 1998; Deittler and Herbich 1998), gender (Joyce 1992; 1993; 2001; Hendon 1996; McCafferty and McCafferty 1996), race and ethnicity (Jones 2002; Orser 2004; Lucy 2005), and community as well as state building processes (Pauketat and Emerson 2000; Pauketat 2001; Varien and Potter 2008).

The practice perspective has become a regular device for archaeological analysis. Everyday human activities leave behind physical remains, either in the form of trash, a finished product, or the materials and tools used in the course of the activity. Through survey and excavations archaeologists record these remains and deduce what practices would have caused them. By studying quotidian material culture archaeologists attempt to reconstruct the everyday activities of a group of people, which are daily expressions of the group's habitus. Household archaeology is particularly conducive to the study of practice and habitus as residences and their adjacent outdoor spaces are the setting of most people's daily activities.

Julia Hendon (1996), Cynthia Robin (2013), and Monica Smith (2021) all speak to the advantages of practice theory for exploring households and their domestic activities through excavation of residences and adjacent areas. These scholars emphasize that in order to learn about the economic and social processes of an ancient civilization one must examine them from the bottom up by focusing on the remains of daily life. The activities that people performed in the past were not merely functional or adaptive mechanisms, but were an active component in forming social relations as well as group and individual identities (Hendon 1996). Household archaeology has proven to be an ideal source of data for practice driven analysis, as residences produce tangible indices of the everyday activities performed by a specific group of people, within a clearly defined space.

Household Archaeology

Household archaeology has a longstanding tradition in New World scholarship, with residential investigations branching all the way back to Edward Thompson's excavations of ancient Maya house mounds in the Yucatan in the late 1800s (Thompson 1886; 1892). Such structures were similarly targeted for initial research at Uaxactun (Wauchope 1934), Baking Pot (Ricketson 1931), Copan (Gordon 1896), and Quirigua (Hewett 1912), with early work focusing on the basic nature and function of less prominent buildings. Outside of these specific studies, however, nascent research in the Maya region primarily focused on civic-ceremonial architecture and the elite palaces within site cores.

In the 1950s settlement archaeology brought about a paradigmatic shift away from elite-centric studies, and towards the study of general populations and ordinary people. Pivotal to this turn was the development of settlement pattern studies by Gordon Willey, first in the Virú Valley of Peru (1953), and then in the Belize Valley (Willey et al. 1965). The new methodology

attempted to map the entirety of Maya sites rather than just their monumental cores, and revealed the vast non-elite populations that lived in residential complexes surrounding ceremonial centers (Bullard 1960; Haviland 1965). These settlement patterns contextualized later investigations of individual house groups, when household archaeology became more defined as a methodology (Becker 1971; 1991; Webster and Abrams 1983; Haviland 1985; Webster and Gonlin 1988; Gonlin 1993). Later studies that investigated settlement patterns on the ground applied a processual research approach to residences, using social models and classification schemes to characterize layouts and artifact frequencies.

In the 1970s and 80s structuralism offered a new theoretical perspective for anthropologists and archaeologists to approach the dwelling. The idea that the underlying cultural structures of a society were replicated in all aspects of life inspired archaeologists, ethnographers, and historians to look at households symbolically. This included semiotic studies of the physical house itself (Glassie 1975; Rapoport 1982; Blanton 1994), objects and activities set around the house (Lemonnier 1986; Joyce 1993; 1998; Dietler and Herbich 1998), and rituals referencing the house (Saile 1985; McAnany 1995; 1998; Taube 1998). Sociologists like Henri Lefebvre (1961) and Pierre Bourdieu (1977) stressed the importance of studying everyday life in particular for identifying social structures, which motivated research of the quotidian on a household level.

Mesoamerican household archaeology solidified into a concrete approach in the 1980s with the publication of various seminal works outlining the advantages and applications of studying household activities and structure (Flannery 1976; Wilk and Rathje 1982; Netting et al. 1984; Maceachern et al. 1988; Wilk and Ashmore 1988; Santley and Hirth 1993). Household archaeology was touted as the ideal scale of analysis because it is the most basic unit in any society, while still intersecting directly with the economic and political spheres (Wilk and Rathje

1982). Initially research interests within household archaeology primarily focused on production and economic organization, but have since branched out to include gender, status, communities, and identity (Joyce 1992; 1993; 2000; 2004; Hendon 1996; 1999; 2007; Emberling 1997; Canuto and Yaeger 2000; de Lucia 2010).

Hailed as the middle-range solution for linking material remains with these larger social processes, household archaeology has proven to be a critical tool in Maya archaeology (Wilk and Rathje 1982; Maceachern et al. 1988; Wilk and Ashmore 1988; Robin 2013). Significant research has been devoted to investigating households in the Maya hinterlands to better understand rural farming communities (Iannone and Connell 2003; Lohse and Valdez 2004; LeCount and Yaeger 2010; Robin 2012; Robin 2013), while the same approach has also been used to study elite palaces (Harrison 1999; Inomata and Houston 2001a; Inomata and Houston 2001b; Inomata et al. 2002; Christie 2003) and intermediate diversity between the two extremes (Webster et al. 1989; Webster et al. 1998; Haviland and Moholy-Nagy 1992; Chase and Chase 1996). The household has proven to be a valuable unit for investigating disparities of wealth within sites (M.E. Smith 1987; Palka 1995; Chase and Chase 1996; LeCount 1999; Eppich 2011; Reed and Zeleznik 2015), domestic craft production and artisanal occupations (Inomata and Stiver 1998; Kovacevich 2006; Rossi et al. 2015), identity (Lightfoot et al. 1998; Blackmore 2014), and popular religion and folk rituals (McAnany 1995; 1998; LeCount 2010; Garber et al 1998).

A continued interest in household archaeology is reflected in updated syntheses and discussions of new applications by Mayanists (Gonlin 2020; Hendon 2021). However, the advancement of geographic information systems (GIS) and the application of new lidar technology has begun to shift the scale of focus in Maya residential studies from the micro back to the macro, drawing renewed attention to settlement patterns (Chase et al. 2010; Canuto et al.

2018). In revealing a vast expanse of settlements that were previously unknown to archaeologists, lidar has exposed new residential patterns and agricultural features that impact current perspectives on urbanism versus ruralism, polity integration, and connectivity between communities (Chase et al. 2014; Garrison et al. 2019; Stanton et al. 2020). Furthermore, GIS technology facilitates rapid calculations for widespread comparisons of household groups to reexamine issues like social inequality across sites (Chase and Chase 2017; Thompson and Prufer 2021). Many of these new studies return to the original subjects of inquiry in Maya household archaeology, using residential patterns on a broad scale to investigate economic and political structures.

Present Application

Giddens' take on practice theory is particularly useful here for analyzing political actors in a structured environment like Maya courts. Social structures dictate what is acceptable behavior for Maya kings and courtiers, and how court members of different roles are expected to act. However, courtiers can also reflect on their actions and adjust them to improve their chances of personal success or survival. These decisions would result in slightly modified practices that deviate from those of the other political agents. When aristocrats adjust their practices, this can impact the greater political system over time. Strategic choices by different elite lineages can increase their political power, change the balance of power among local elites, and potentially undermine the basis of power for the ruling lineage. Thus Maya social structures prescribe the behavior of Maya actors, and the behavior of Maya actors can affect Maya social structures and political systems.

Given the utility of household archaeology and its complementary application to practice theory, residential complexes are the natural choice as the locus for examining the practices of

different elite courtly lineages. The remnants of dwellings and associated activities express a range of behaviors among the different royal and noble lines at El Zotz. The question is: which members of the Pa'ka'n court were part of the political elite, and what tactics did they use to negotiate their power in the political system?

Each lineage's practices are an expression of their habitus and social identity, so the remains of their daily behaviors should indicate which of families connected to the Pa'ka'n court possessed political influence. Moreover, the practices of each noble lineage reflect different choices made by each kinship unit to improve or preserve their circumstances within the court structure. Following the model of structuration, the strategies that secondary elites used to get ahead would have been permitted within the governing structures of Maya society, but may have also led to changes in the political system.

This study will delve into the physical residences of the Maya aristocracy, the mundane household activities and their sacred counterparts, and connections from the home to the outside world. I will examine the setting of each group, considering the location chosen for each housing complex, the layout, and architecture. These characteristics reflect social strategies, ideological alignments, and the ability to command a labor force. This is followed by a closer look at mundane household practices, including production activities, group consumption, material preferences, and status markers. Ritual practices are addressed separately with a discussion of the types of rituals performed at each complex, the spaces constructed for these rituals, objects incorporated in them, and the imagery selected for sacred settings. Finally, I consider which external networks were utilized by the people at each group, as indicated by the presence of different nonlocal materials and emulated foreign styles. This broad examination of household behavior and choices will highlight which residences housed the Pa'ka'n nobility, and reveal what their individual political strategies were.

A Note on Maya Household Organization

When conducting household archaeology it is essential to understand how people were grouped together into residential units. The Classic Maya utilized a lineage-based system of household organization that grouped people socially and spatially by their extended family unit. Ancient Maya patio groups have long been interpreted as dwellings occupied by extended families based on the consistency of this phenomenon in Maya culture over centuries (Thompson 1886; 1892; Ricketson 1931; Gordon 1896; Hewett 1912). An underlying biological relationship forms the basis of modern, Colonial, and Postclassic Maya housing organization, with extended families living in residential groups that grow organically over time (Vogt 1969; Carmack 1981; McAnany 1995). Postclassic Maya cosmogonic texts from the Yucatan and Guatemalan Highlands document the lineage structure of the Lowland and Highland Maya, beginning with the first humans and ending with their contemporary descendants (Roys 1967; Tedlock 1996). Descent lines and familial hierarchies have also been outlined in Postclassic legal documents and historical accounts (Carmack 1981; Morley 1941). The tradition of kinship organization still held true in the twentieth century, as documented by ethnographic studies of the Tzotzil Maya who resided with extended family in patrilocal residential units (Vogt 1969).

For the Classic Maya, an emphasis on bloodlines is evident in inscriptions, which record in painstaking detail the descent lines of kings, queens, and even nobility (Zender 2004; Jackson 2013; Martin 2020). Moreover, recent biological studies have confirmed that individuals buried in the same residential group were primarily related to one another by blood, although this was not a requirement for all members (Miller 2014). I will therefore refer to families when discussing the occupants of patio groups, but this is with the understanding that family ties could be forged through means other than blood.

4. EL ZOTZ: SETTING, RESEARCH HISTORY, AND SITE HISTORY

Location and Setting

The site of El Zotz is centered between four drainage basins that sustained Maya cities in northern Guatemala. These include the San Pedro Martír River to the west (which flows into the Usumacinta), the Pasión River to the south (which also extends to the Usumacinta River), the Belize River to the southeast (which flows into the Caribbean), and the Three Rivers basin to the northeast (which also flows into the Caribbean). El Zotz sits between these waterways on the northern escarpment of the Buenavista Valley, a corridor in the Peten department of Guatemala that connects Tikal and the eastern Peten with El Perú-Waka' and smaller centers to the west (Figure 14). The passage ends at the San Pedro Martír river and empties into the Gulf, making the valley the ideal trade route from Tikal to Tabasco and eastern Mexico. El Zotz is positioned in the middle of this corridor, conveniently perched at the entrance to another conduit leading north into the Mirador plateau and its array of urban centers. This location places El Zotz in a dynamic position politically, as it falls between the sphere of the Mutul Kingdom to the east, and the Snake Kingdom to the west and north. The site's neighbors were powerful forces in Peten politics, namely Tikal and El Perú-Waka', situating El Zotz in a precarious diplomatic position for most of its Late Classic occupation. Today the site falls within the Maya Biosphere Reserve under the control of the San Miguel La Palotada El Zotz Biotope, a national reserve protected and maintained by the Consejo Nacional de Areas Protegidas (CONAP), the Instituto de Arqueología e Historia (IDAEH), and the Centro de Estudios Conservacionistas of the Universidad de San Carlos (CECON).

The Buenavista Valley stands at the intersection of air flows from the Intertropical Convergence Zone and the Subtropical High Pressure, which result in dichotomous wet and dry seasons and an average annual rainfall of 1,500 mm (Beach et al. 2018). This climate supports

diverse vegetation, including upland forests, savannas, and wetlands. Early populations here were sustained by seasonal marsh wetlands (referred to as *bajos)*, large shallow bodies of water (*civales)*, and small depressions that fill with water (*aguadas*). Settlements were erected on limestone bedrock, which was quarried for architectural blocks, rock fill, and stucco when building structures. This porous limestone creates a landscape that is constantly transforming as rain forms caves and cenotes beneath the bedrock that open up and collapse over time.

Within this ever-changing landscape, the El Zotz region supports a dramatic ecosystem. The word *zotz* (*sotz'*), meaning bat in most Mayan languages, is a modern moniker for the site that references the large bat colony that lives in a sinkhole-cave in the escarpment 2.4 km east of El Zotz (Laporte 2006; Houston et al. 2018). Although the colony has begun to shrink in recent years, a decade ago bats flooded the sky on a nightly basis, swarming in search of food. Although it is difficult to say how long the bat colony has lived there, the karstic feature from which the bats emerge likely caught the attention of the population at El Zotz. Caves in Maya civilization were portals to the underworld and sources of supernatural forces, and were thus imbued with sacred meaning (Stone 1995). This particular cave is in the direct sightline of the first palace at El Zotz, and on the summer solstice the sun rises over this cave when viewed from the palace's main temple, suggesting that the bat cave was culturally significant to the Pa'ka'n dynasty (Houston et al. 2015). Moreover, vessels that were recovered from the founder's tomb inside this temple were encrusted with calcium deposits of the kind found on pots left in caves, further linking the early foundation of El Zotz with sacred caves and the surrounding landscape (Newman et al. 2015).

History of Research

Before El Zotz was ever formally recorded by archaeologists it was ravaged by looters, beginning in the late 1960s. The site and its close neighbors were victim to a mix of organized and casual plundering, facilitated by illegal logger settlements up until their removal in the early 2000s (Houston et al. 2018). The looters left sweeping destruction in their wake; hundreds of illicit tunnels were drilled into the structures across El Zotz, stele faces were sawed off, and a lintel from the site's main pyramid was removed (eventually to be identified at the Denver Museum of Art and repatriated). Despite the best efforts of Guatemalan authorities to maintain the security of the site, casual looting still takes place today, especially at structures that are easily accessed along the original logging roads (as is the case at La Luna).

In 1970 Ian Graham visited El Zotz and made preliminary maps of its main architecture (Houston et al. 2018). Seven years later Marco Antonio Bailey of IDAEH conducted a small salvage investigation at the site and officially registered it under its modern name, "El Zotz", with the Guatemalan government (Laporte 2006). Soon after, in 1978, Graham returned to El Zotz and recorded its neighboring site, Bejucal, again with initial maps and sketches. That same year George Andrews visited El Zotz and, noting its architectural parallels with Tikal, published a description of the site in *Mexicon* several years later (Andrews 1986). By the 1980s El Zotz had garnered enough interest from the nearby Proyecto Nacional Tikal to warrant a salvage operation under Juan Pedro Laporte and Juan Antonio Valdés. This investigation cleaned out looters trenches and recovered a number of cached artifacts while also stabilizing the superstructure of Str. M7-1 (Laporte 2006). El Zotz was mapped again in 1995 by the Departamento de Monumentos Prehispanicos y Coloniales, and later test pitted by the Proyecto Triángulo from 1997-2000 (Quintana and Wurster 2001). However, it was not until the formation of the Proyecto Arqueológico El Zotz that the site was formally excavated.

The Proyecto Arqueológico El Zotz was created by Stephen Houston of Brown University and guided under his direction from 2006-2011. In this first phase of the project investigations were co-directed by Hector Escobedo (2007), Ernesto Arredondo (2008-2009), and Edwin Román (2009-2015), and overseen by paleoenvironmental advisor Timothy Beach (2009-2011) and director of regional investigations Thomas Garrison (2009-2011). Research at this stage focused on establishing the occupation and layout of El Zotz and its neighbors, with excavations largely focused on the monumental architecture around the epicenter of El Zotz (including the modern named Acropolis, the East Group, the South Group, the Five Temples Group, El Diablo, Las Palmitas, La Tortuga, and El Tejón), Bejucal, and the Preclassic center of El Palmar. Since 2012 the project has been directed by Thomas Garrison of the University of Texas in Austin and codirected by Edwin Román, Yeny Gutiérrez (2016-2019), and Elizabeth Marroquín (2020-present). The second phase of research at PAEZ (2012-2016) centered on the Early Classic history and elite activity at the El Zotz core, until 2017 when the largescale acquisition of lidar data shifted the project's perspective to a regional one. It is upon the advent of this third stage of research that La Luna, a small residential group in the greater El Zotz region, was identified as a place of interest for investigation.

History of Occupation at El Zotz

The Preclassic – Che, Chub, and Pop Phases (2000 BC – AD 250)

The earliest signs of a human occupation in the El Zotz region were identified in sediment cores from a nearby *cival*, which showed the cultivation of maize as early as 1300 BC (Luzzader-Beach et al. 2016). The first significant population in the region settled on the edge of this *cival* in the Middle Preclassic (1000-300 BC), forming the site of El Palmar (Figure 14). After a building boom in the Middle Preclassic, El Palmar became the major civic center of the

Buenavista Valley, with a monumental E-Group marking the center of the site. This urban trajectory continued into the Late Preclassic (300 BC – AD 250) with a second flurry of construction as locals expanded the original E-Group and erected a large Triadic group (Doyle 2017; Doyle and Piedrasanta 2018). At its height El Palmar was populated by almost 1000 structures, with residences sprawled along the main corridor of the valley (Garrison 2020).

All of these features point to a thriving urban settlement on the floor of the Buenavista Valley. The presence of a Preclassic E-Group among these residences is a marker of early large-scale community organization, while the Triadic group is believed to have risen out of early institutions of kingship that emerged in the Maya Lowlands at this time Estrada-Belli 2011; Doyle 2017).

However, towards the end of the Late Preclassic settlement patterns suddenly shifted. People moved from the open center of the valley corridor towards the steep escarpment, away from any potential foot traffic along the trade route (Garrison and Garrido 2012). This may have cooccured with severe droughts and increased erosion at the *cival* in the environmental record (Beach et al. 2018), though monumental construction had ceased at El Palmar by 1 BC.

Settlement shifts and depopulation are interpreted as signs of struggle at El Palmar, caused in part by the aforementioned drought and the pollution of water sources. Environmental stresses could have caused people to shift focus from El Palmar, and it is also notable that the local population took to more defensible locations at a time when many Preclassic centers erected fortifications or abandoned vulnerable site centers for more secure locations (Valdés and Fahsen 1995; Estrada-Belli 2011). It seems that a mix of factors created a phase of instability at El Palmar in the Terminal Preclassic (AD 200-300), causing its depopulation and leaving room for a new star to rise in the region.

While El Palmar dominated the landscape of the Buenavista Valley in the Preclassic period, a small community did live 5 km away at El Zotz as well. Eventually the population in the Buenavista Valley relocated to El Zotz after leaving El Palmar, although there is a gap of two centuries between these two occupations. This is not to say that El Palmar was vacated in its entirety, in fact a number of new structures were built around the site in the Early Classic, but there was an undeniable exodus at the site (Doyle and Piedrasanta 2018).

Migration shifts from El Palmar to El Zotz are supported by settlement pattern data as well as by the adoption of certain practices at El Zotz that were previously specific to Preclassic El Palmar. As activity ceased at residences around El Palmar in the Terminal Preclassic, new settlements appeared along the edges of the valley, concentrating particularly around El Zotz. Household objects and ritual practices from El Palmar were identified in the new Terminal Preclassic – Early Classic settlements at El Zotz. A pot uncovered at El Zotz from this timeframe possessed the same elemental composition of ceramics from El Palmar, indicating that the pot most likely came from El Palmar (Doyle 2013). Furthermore, a unique ritual practice from El Palmar that places infant offerings in lip-to-lip caches in the Late Preclassic also appeared at the court of El Zotz in the beginning of the Early Classic (Garrison and Houston 2018). These parallels form a convincing link between the Preclassic community at El Palmar and the Classic polity at El Zotz.

The Early Classic - Saquij Phase (AD 250-550)

With the wave of migration from El Palmar to the location of El Zotz in the Late Preclassic a new dynasty was founded at El Zotz in the Early Classic period (AD 250-550). Inhabitants built the first court of El Zotz at El Diablo, a palace complex fortified by the steep hillside on which it sits. It is here that the first royal tomb of El Zotz, likely the founder of the

Pa'ka'n dynasty, was buried in the late fourth century AD (Houston et al. 2015). A looted bowl from this period features the earliest known example of the Pa'ka'n emblem glyph, "pa'ka'n" meaning "split" or "fortified sky" (Figure 15)(Houston et al. 2018). The place name may be a reference to the fortified palace of El Diablo perched high on the valley escarpment.

Below El Diablo, residents constructed a second, smaller noble residence called El Tejón, and built up the center of El Zotz, which consisted of a range of temples, an accession platform, and modest residential mounds (Román et al. 2018). While few Early Classic non-elite residences left permanent traces on the landscape, due to the perishable materials from which they were made, pollen analysis shows that the land around the site at this time was mostly cleared of forest and cultivated with maize and copal trees (Beach et al. 2018).

At the same time the site of Bejucal, originally a small Preclassic settlement, underwent a significant renovation to become a country house for the Pa'ka'n elite (Garrison et al. 2016). The inhabitants here erected a palace, large pyramid, and most significantly, a stela that describes the accession of a Pa'ka'n ruler in AD 381 under the auspices of Sihyaj K'ahk' (see Chapter 1) (Garrison et al. 2016). This stela is the only explicit reference to the political affiliations of El Zotz throughout the Early Classic, and it describes a critical moment in time after the Teotihuacan *entrada* at Tikal in AD 378. From this inscription it is deduced that the Pa'ka'n dynasty was subjugated by Tikal during Sihyaj K'ahk's campaign across the Peten in the Early Classic.

By the middle of the Early Classic, El Diablo and El Tejón were abandoned in favor of the elite spaces downhill at the core of El Zotz. As residents ritually dismantled and sealed parts of El Diablo, masonry structures in the core of El Zotz were remodeled into the site's main royal residence (the Acropolis), and a central accession platform was built in the East Group where

kings were crowned (Román et al. 2018). These new constructions, along with the Five Temples Group, became the hubs of elite activity at El Zotz in the early Late Classic.

The Late Classic - Mo' Phase (AD 550 – 700)

The beginning of the Late Classic was an ambiguous time in the dynastic history of El Zotz. A general dearth of monumental inscriptions at the site makes it difficult to construct a record of kingship as it passed from one Pa'ka'n ruler to the next, however looted ceremonial vessels that have been traced elementally, stylistically, and textually to El Zotz indicate that many contenders to the throne existed within a short span of time from AD 600-650. Of the minimum nine individuals that are named on these vessels, five claim the *ajaw* or *k'uhul ajaw* title that was reserved for Maya kings. Given the specificity of these inscriptions and how restricted literacy was in Classic Maya society, only highly trained members of the court could have inscribed these vases (Reents-Budet 1994; Houston 2008). Thus the individuals named on each vase had to have had significant wealth and access to commission objects from the budding literati of the El Zotz court.

As pointed out by Houston (2008), the proliferation of lords in the early Late Classic means that either a quick series of successions occurred within a short time period, with each ruler averaging a reign of 10 years, or possibly that preselected successors were allowed to use these titles before acceding to the throne (Houston 2008). If the latter is true this raises the average reign to 16.6 years, but regardless these rules are short-lived compared to the average reign at Tikal (Carter et al. 2018).

Due to the lack of stelae at El Zotz, the external politics of the Pa'ka'n dynasty have been pieced together through veiled allusions from other media. The only monumental inscription available from this time appears on Lintel 1 from the pyramid M7-1 at El Zotz, which

depicts the ruler *Chak […] Ahk* in early sixth century style. *Chak […] Ahk* is paired with a lineage statement that names his father as the king of El Zotz and his mother as an elite with the title *sak wayas* (Houston 2008; Carter et al. 2018). This designation is used in the Mirador region, home of the Snake Kingdom, suggesting that *Chak […] Ahk* was the son of Calakmul-allied royalty (Grube 2008: 228-229; Carter et al. 2018).

Links to the Snake Kingdom at Calakmul are strengthened by portable goods from El Perú-Waka', Calakmul's subsidiary and El Zotz's western neighbor. An early Late Classic polychrome vessel found in a high-status burial at El Perú-Waka' carries the emblem glyph of El Zotz, indicating that it was originally owned by a Pa'ka'n elite (Eppich 2011). Within this same time frame, a special Honey-Yellow variety of polychromes appeared at El Perú-Waka' that is believed to have been made in palace workshops at that site (Eppich et al. 2016). This variety is featured prominently in the assemblage of prestige pottery at El Zotz, along with other more mundane products such as El Perú-Waka' style serving basins and El Perú-Waka' brown chert.

All of these links between El Perú-Waka' and El Zotz demonstrate a working relationship between the two courts. The Pa'ka'n vessel found at El Perú-Waka' suggests favorable relations existed between families at El Zotz and El Perú-Waka', while domestic goods at El Zotz indicate that the two cities were joined by close exchange networks (Carter et al. 2018).

Yet one of the clearest ties between El Zotz and the Snake Kingdom comes from an early Late Classic polychrome vase excavated in an elite grave at Uaxactun. The inscription on this vessel explains that it was made at El Zotz for a Pa'ka'n ruler, while the scene that wraps around the vase shows a presumed Snake king, bearing the title "Eastern overlord", accepting tribute from two subsidiary figures, one of whom is labeled a lord of Calakmul (Carter et al. 2018). It is interesting that this vase - commissioned at El Zotz, paying homage to the Snake

Kingdom - was gifted to Uaxactun, demonstrating the vast network of the Snake Kingdom in the central Peten in the first half of the Late Classic.

Following this period El Zotz saw a pause in monumental construction from the late 7th century to the early 8th century (Carter et al. 2018). This break coincided with an uptick in forest recovery, suggesting that either agricultural practices or the local population surrounding El Zotz decreased during this brief building hiatus (Beach et al. 2018).

While details from this short time span are scant, it has been suggested that this recession in activity could be connected to the resurgence of Tikal, the Snake Kingdom's greatest adversary (Carter et al. 2018). Jasaw Chan K'awiil I's victory in AD 695 against Calakmul, and later against El Perú-Waka' (AD 743), could have thrown El Zotz into a precarious period as it transitioned from the Snake Kingdom's political sphere, back to Tikal's (Martin and Grube 2008).

The Late Classic - Caal Phase (AD 700 - 850)

Around AD 725 El Zotz saw a renaissance of monumental architecture. Residents renewed their investment in the public ritual spaces, building a new iteration of pyramid M7-2 and erecting the largest pyramid at El Zotz (L7-11) (Carter et al. 2018). Meanwhile, the Pa'ka'n elite expanded their own living spaces exponentially. The original Acropolis was completely remodeled and then extended with the new Northwest Courtyard; a smaller patio group, Group K, was added to the Western Plaza of the site core; and a separate elite residential complex, Las Palmitas, was built in a single phase up on the escarpment 700 m north of the center. All of these additions to the landscape at El Zotz signaled an surge in the number of elites at the site, presumably corresponding to a growing tier of secondary aristocracy. As the Acropolis was renovated and its platforms enlarged, the space itself became increasingly restrictive, with

narrow entrances and passageways limiting the sightlines and flow of people into the court space (Newman 2015). Spatial restrictions also appear at Bejucal, where modifications in the eighth century divided open rooms in the palace into smaller controlled spaces (Garrison et al. 2016).

The resumption of monumental building in the El Zotz region was met with reinvigorated farming activities, with a rise in squash and pine pollen as well as the return of maize and copal agriculture (Beach et al 2018). Interestingly, overall the non-elite populations that supported El Zotz in the Late Classic did not cluster around the site's center. Instead, remnants of commoner households are widely dispersed along the valley's northern edge and in the hills near Bejucal.

Evidence of external affairs in the latter half of the Late Classic are rare at El Zotz. Stela 2 at Uaxactun possibly describes a trip made by the king of Uaxactun to El Zotz in AD 751, El Perú-Waka' style polychromes and serving basins continue to be used at El Zotz, and Ik' style sherds from Motul de San José begin to appear in the ceramic assemblage (Carter et al. 2018). All of these objects indicate that local political contacts persisted between cities around the Buenavista Valley, despite the turbulent political shift in the region between the Snake Kingdom and Tikal.

Towards the end of the ninth century many sites in the surrounding central Peten were deserted and evidence of large political institutions declined. Bejucal was abandoned, and cities in the neighboring Petexbatun fell into disarray in the midst of incessant warfare (Martin and Grube 2008; Inomata 2016; Demarest et al. 2016; Martin 2020). A fragment of El Zotz Stela 4 describing a Pa'ka'n king performing a Period Ending ritual in AD 830 indicates that the dynasty was still active at this time, and natural wear on the steal suggest that it remained erected for some time. However, the way the monument was later reused, as a foundation stone for a

Terminal Classic renovation, signals that the significance of this event was not enduring (Carter et al. 2018).

The Terminal Classic - Cucul Phase (AD 850-1000)

The Terminal Classic at El Zotz was characterized by community efforts to update and repurpose the existing resources in the city core following the decline of Tikal. One of the platforms enclosing the Northwest Courtyard was extended and Stela 4 broken up and fitted into its corner foundation, while the Late Classic Stela 2 was reshaped into an altar for the site's main plaza (Newman et al. 2018). In a remarkable ritual event, the court gathered, scattered, and then burned massive quantities of domestic waste in the largest buildings of the El Zotz Acropolis, before covering the waste in a thick layer of building fill. This stratigraphic layer is interpreted as the remnants of a termination deposit, which was then incorporated into a massive building renovation of the Acropolis itself (Newman et al. 2018). The artifacts used in this scattering rite appear to have been recycled from discard piles, while construction fill for this event reused masonry blocks from the superstructures of the Acropolis (Newman et al. 2018). The footprint of this remodeling shows a continued trend towards restricting access to the Acropolis and Northwest Courtyard; however, the project was not to be completed. The remains of this final attempt to update the palace were abandoned in place, signaling a lack of resources, labor, or both on the part of the Pa'ka'n dynasty (Newman et al. 2018).

Despite the failed remodel of the Acropolis, a continuation of small-scale modifications at the Northwest Courtyard and Las Palmitas indicate that the local courtiers did not wholly evacuate El Zotz. Although the construction materials and techniques of the Terminal Classic did not reach the caliber that existed in the Late Classic, a platform expansion at the Northwest Courtyard and risers at Las Palmitas did generate new spaces for court-related activity

(Newman et al. 2018). The trade of prestige goods into El Zotz persisted, as evidenced by fine ware vessels from the Usumacinta region and the eastern Buenavista Valley, chert from El Perú-Waka', and a palace diet of large game sustained the populations at both remaining complexes (Newman et al. 2018). It seems that while the Pa'ka'n dynasty had begun to destabilize, a wealthy aristocracy held fast to the practices that had legitimized their elevated status in the centuries prior. This group of hanger-ons was most likely made up of either royals displaced from their original Acropolis, or the secondary elite that had always occupied these spaces outside the civic-ceremonial core.

At this same time the general population that had traditionally dispersed itself beyond the ceremonial center of El Zotz began to contract, clustering near the site core in small patio groups (de Carteret 2017). Though extensive excavations in one of these patio groups (Group I10) showed that it was likely only occupied for a century, the materials at these residences showed that even commoner lineage groups had some access to high-value items such as polychrome vases in the Terminal Classic (de Carteret 2017).

With the abandonment of El Perú-Waka' to the west, the people at El Zotz focused their interactions eastward to the few population centers that remained. On a quotidian level the ceramic styles and mound building practices that persisted reflected the traditions of Tikal and Uaxactun, and a fragment of a molded-carved vase from Las Palmitas demonstrated engagement with the same production source that provided duplicates to Uaxactun, Tikal, and Yaxha (de Carteret 2017; Carter 2014). As Tikal was abandoned by its elite and claimed by ancient looters, its satellite communities and peripheral centers attempted to outlast the region's decline. Yet, without other royal centers with which to interact and trade, it was too difficult to maintain the Classic institution of kingship that had founded El Zotz (Newman et al. 2018). Eventually the population that had remained, high-status and commoner alike, was forced to

move on from its once vibrant home, leaving only a few families to make use of the ruins of the ceremonial center of El Zotz.

The Early Postclassic - Choc Phase (AD 1000-1300)

The population that remained at El Zotz inhabited the site's South Group in semi-perishable structures, made with repurposed materials from Late Classic structures on top of preexisting platforms. Research at the South Group shows that while the Maya traditions forged from the construct of Classic kingship and an elite economy dissolved in the Terminal Classic, mundane practices stayed constant (Kingsley and Gámez 2018). Utilitarian and monochrome serving vessels showed continuity in their form and color with their Classic period antecedents, while chert and grinding stone tools continued to appear in their usual domestic contexts. Obsidian imports persisted, but now from new sources as trade networks shifted regionally from El Chayal to Ixtepeque (Kingsley and Gámez 2018). The Postclassic population saw an abandonment of monumental architecture, polychrome and fine serving vessels, and exotic ritual objects. Any prestige objects found within the group appear to have been recycled from the Classic period, and a new emphasis on household ritual through figurines replaced the lavish civic ceremonies of the previous era that centered on divine individuals (Kingsley and Gámez 2018). Despite the loss of the Maya elite and all of the political and economic resources that came with them, life went on for the rest of the Buenavista Valley (Kingsley 2014).

The Late Postclassic (AD 1300-1519)

Eventually El Zotz was abandoned in its entirety, however an ephemeral presence from the Lacandon Maya suggests that the site continued to hold cultural significance even after the departure of local populations. As a refugee community from the Yucatan, the Lacandon Maya

migrated to the Peten in the Postclassic and performed ceremonies at the ruins of Classic Maya sites. The Lacandon paid their respects by leaving offerings at deserted ceremonial spaces, such as structure L7-11 at El Zotz. Here, a pair of anthropomorphic pots and figurine were placed as an offering sometime between AD 1426-1632 (Garrison and Houston 2018). This activity is fleeting, but acknowledges the significance of El Zotz even as it was quickly reclaimed by the jungle.

The Maya Landscape in the Late Classic

Agriculture

The Maya relied heavily on the milpa system (long-fallow swidden agriculture) for growing maize and other major crops, which required clearing large plots of the Lowland jungle (Dunning et al. 2020). Still, the diverse topographical landscape and thin soils of the Lowlands drove the Maya to diversify and augment their cultivation strategies with terracing (contouring, footslope, and cross-channel), canals, wetland fields, garden plots, and possible chinampas (Beach et al. 2002; Beach et al. 2015; Dunning et al 2020). This allowed the Maya to rely on a greater variety of food products, including beans, squash, manioc, and additional root and tree crops.

In the Classic period people had largely cleared the forest around El Zotz and instead tiled the landscape with agricultural fields, garden plots, and specific tree crops like copal and pine. Remote sensing data revealed a limited number of agricultural terraces around the nearby upland site of Bejucal, and small wetland field systems that fed off of a canal grid bordering the El Palmar cival (Garrison et al. 2019). Paleosols show that locals cultivated maize, squash, copal, arrowroot, and fruit trees, and in the Classic period they began to introduce forest

gardens (Beach et al. 2018). This may have been an attempt at more sustainable farming practices (Beach et al. 2018).

Settlement Patterns and Regional Relationships in the Realm of El Zotz

The Buenavista Valley in the Late Classic was characterized as a continuous, low structure density landscape (Garrison et al. 2019). El Zotz and its surrounding population were dispersed along the edge of the Buenavista Escarpment, at the foot of this ridgeline and ascending into the escarpment itself. Late Classic populations were spread out over a wide area along the variable landscape, settling in modest clusters, with denser monumental groups spaced 2 km apart from each other on average (Garrison et al. 2019). People lived in slightly higher concentrations in the karstic hills above the valley, and it was not until the Terminal Classic that the people living nearby in the valley moved in close around El Zotz. The landscape of the Buenavista Valley has recently been described as “conurban”, rather than falling within a truly rural or urban definition (Garrison et al. 2019:1). Large scale labor projects dispersed throughout this continuous landscape, including canals, drained fields, defensive walls, and possible cacao orchards reflect the far reach of the government at El Zotz, and demonstrate continual interaction between the seat of the polity and the surrounding population in the valley. The creation and maintenance of major infrastructure far from the El Zotz core also reflects the negotiation and cooperation of non-elites working with the court of El Zotz (Hutson 2016).

Similarly, it is understood that the monumental labor projects in the core of El Zotz would have required the help of a large number of people to construct. This body of workers was most likely beyond the number of people who actually lived in the site core, so the government of El Zotz must have enlisted a substantial number of workers living nearby in the Buenavista Valley to assist in constructing the civic and ceremonial structures of the Late Classic. In return for

creating temples and accommodations for divine lineages and governing officials, the ruler of El Zotz provided services, many of them intangible, to the general public. Classic Maya lords mediated with and appeased the gods that decided the fates of the non-elite with each rainy season and harvest season (Houston et al. 2003; Hutson 2016). This *quid pro quo* between the courts and the non-elite was a moral contract, whereby the commoners provided for a higher government to exist, and that government safeguarded their covenants with cosmic forces (Houston et al. 2003).

Potential Secondary Elite Residences

Over the course of investigations at El Zotz three different architectural groups were identified as potential residences for non-royal members of the Pa'ka'n court (Figure 16). These groups were constructed in the Late Classic, when sub-royal elite bureaucracies developed at sites across the Maya lowlands. The first of the three residential groups, the Northwest Courtyard, was identified as a possible courtier residence based on its location immediately next to the Acropolis in the center of El Zotz (Aragón 2011; Newman and Menéndez 2012). The second group, Las Palmitas, is located outside the core of El Zotz but its monumental architecture signaled high status (Gillot Vassaux 2008; Quiroa Flores 2009; Carter and Gutiérrez 2011; Carter and Gutiérrez Castillo 2012; Carter 2014). Finally, a third group, La Luna, was 2 km from the site core, but yielded many high-value possessions linked to the Pa'ka'n court (Alcover Firpi 2015; Garrison et al. 2017; Bishop and Rosales 2019; Bishop 2020).

<u>The Northwest Courtyard: Investigations and Setting</u>

The Northwest Courtyard is a modest arrangement of four rectangular structures (L7-17, L7-18, L7-19, L7-20) that abut the west border of the Acropolis in the center of El Zotz (Figure

17). Luckily, as a cluster of unremarkable mounds amidst the monumental core of El Zotz, the Northwest Courtyard evaded attention from looters prior to its formal study by the PAEZ investigations. The complex was first explored by Pedro Aragón in 2010, who excavated L7-18 in an investigation of residences around the El Zotz core (Aragón 2011). This was followed by a more thorough initiative led by Sarah Newman in 2011. With the assistance of Elsa Dámaris Menéndez, Newman excavated vertical units and horizontal exposures of structures L7-17 and L7-20 to reveal the different iterations of each mound while determining the time depth of the group's occupation for comparison with the Acropolis (Newman 2015).

The Northwest Courtyard sits upon an expanse of leveled bedrock that forms the base for most of the El Zotz site core. The complex is self-contained, with three connected low mounds closing off the north, west, and south sides of the courtyard, and one L-shaped structure in the middle of the open patio (Figure 17). The backside of the Acropolis (structures L7-1, L7-2, and L7-5) forms the east boundary of the group, leaving one entrance to the courtyard from the south. The low platform structures of this group provided raised foundations for dwellings made of perishable materials. At approximately 0.5 m high, the mounds at the Northwest Courtyard are shorter than the structures that dominate the central patio of La Luna (T1-7, T1-10, and T1-11), but are similar in size to the rest of the buildings at La Luna.

The architecture of the Late Classic is well-preserved with intact walls and floors, while the Terminal Classic phases are shoddily formed and have held up poorly over time. Raw materials for this architecture may have come from the quarry immediately north of the complex, or from one of the dozens of quarries surrounding the core that have since been identified with lidar (Thomas Garrison, personal communication 2020). Cultural material from structures and refuse deposits show the group was used for elite household activities in the Late and Terminal Classic, with some hints of activity extending into the early Postclassic.

The Northwest Courtyard: History of Construction

The Northwest Courtyard was built on a terrace of modified bedrock that was previously cut and filled in the Early Classic for the construction of the site core. At some point a chultun (a bedrock storage cistern) was also carved into this bedrock platform immediately off of Str. L7-18, suggesting it was used for storage by the residents of this structure.

The first iteration of the Northwest Courtyard was built in the Late Classic, during a construction boom in the early eighth century that changed the landscape of the El Zotz core. At this time the local population remodeled the entire Acropolis to restrict access, and erected Str. L7-11, the tallest pyramid at El Zotz, while also adding the Northwest Courtyard as an extension to the Acropolis (Newman et al. 2018). This initial phase laid out the basic format of the group and its four structures, which were aligned with the cardinal directions, in keeping with the arrangement of the Acropolis.

Structure L7-18 possessed only one architectural phase. The low single tier mound was originally floored with a thick layer stucco, but was later resurfaced by residents with a much thinner stucco coating (Aragón 2011). The ceramics from this excavation come predominately from this final floor, dating to the Terminal Classic, with a few examples of Postclassic pottery.

Settlers formed the base of Str. L7-20 with a stratum of clay fill followed by compact soil and large rocks. They then coated the platform with plaster, representing the first floor of the structure, which was later augmented by three subsequent resurfacings (Newman and Menéndez 2012). Ceramics confirm that the first construction of Str. L7-20 dated to the latter half of the Late Classic, while the last floor certainly dates to the Terminal Classic. The stratigraphic profiles show that the earliest phase of Str. L7-20 was the best-defined, with

carefully arranged stones, while later iterations were merely resurfaced with thin layers of fill and stucco flooring (Newman and Menéndez 2012).

Structure L7-17 was built in two major construction phases. Residents assembled the original iteration with dressed stones and thick stucco flooring, followed by a number of resurfacing events (Newman and Menéndez 2012). In the Terminal Classic occupants remodeled the structure, expanding the footprint of Str. L7-17 by multiple meters in every direction until it reached its final dimensions at 25 x 8.5 m (Newman et al. 2018). Builders used rough limestones rocks of diverse shapes and sizes over thin floors for this renovation, in stark contrast with the uniform blocks and thick floors of the structure's earlier phase. The Terminal Classic enlargement shifted the orientation of Str. L7-17 from the core's usual alignment (9 degrees west of North) towards true north, although it is unclear if this was intentional or merely a result of imprecise building techniques (Newman et al. 2018). This phase was then later modified at least one more time until it reached its final form: a three-tiered mound topped with a perishable structure divided into two rooms. A floor assemblage overlays this final phase, offering a snapshot into the final moments of life within this home. This structure was the most extensively investigated within the courtyard, which is reflected in the number of features recovered during archaeological excavations.

Overall, the architectural sequences at structures L7-17, L7-18, and L7-20 tell of a large initial construction phase by locals in the eighth century, followed by episodes of refurbishment with new stucco floors over the original platforms. In the Terminal Classic residents renovated and expanded Str. L7-17 significantly, but this is the only structure that received such investment of time and resources after the Late Classic. The expansion of Str. L7-17 is telling of the community that remained at the site core after the Acropolis was vacated. The people that continued to reside in the Northwest Courtyard may have remodeled Str. L7-17 in an attempt to

breathe life into their home, in response to the surrounding deterioration of the site core. Floor resurfacing continued into the Terminal Classic, reflecting occupation that persisted after AD 850 until activity dwindled off at the group.

The Northwest Courtyard: Depositional Features

Excavations in the Northwest Courtyard uncovered three features associated with Str. L7-17: a household midden, a burial, and a floor assemblage found in situ (Table 1). The latter two definitively date to the Terminal Classic, the floor assemblage representing the ultimate moments of occupation at the Northwest Courtyard, opening a unique window into the final experiences of the group's inhabitants. The floor assemblage included fragments of manos and metates, shell beads, three hand axes, and one arrow point in addition to ceramics, lithics, and animal bones. Unfortunately the ceramics from the floor assemblage were not analyzed, and the materials from the largest depositional event, the household midden, were not analyzed or dated.

Table 1: Depositional Features at the Northwest Courtyard

Feature	**Structure**	**Provenience**	**Estimated Date**
Household Midden	L7-17	EZ-12J-13-3	-
Burial 12	L7-17	EZ-12J-6-4	Terminal Classic
In situ Floor Assemblage	L7-17	EZ-12J-4-2	Terminal Classic

Las Palmitas: Investigations and Setting

Located only 700 m north from the center of El Zotz, Las Palmitas is a standalone complex of 15 structures that has long been of interest to PAEZ (Figure 18). The existence of Las Palmitas was originally reported by Ian Graham in his personal notes in the 1970s, and later verified during reconnaissance by Zachary Nelson of PAEZ in 2007 (Nelson 2008). In 2008

Alejandro Gillot Vassaux returned to the group to determine its phases of occupation and architectural sequence, by means of digging test pits and clearing looters trenches (Gillot 2008). These small-scale investigations continued in 2009 under Fabiola Quiroa Flores (2009), and in 2010 Nick Carter and Yeny Gutiérrez began extensive excavations of the group's architecture. This initiative continued into 2011, exposing construction from individual phases while also revealing stratigraphic profiles in vertical units. Excavations by Carter and Gutiérrez investigated the group's main plaza, the palace patio, and structures M3-1, M3-2, M3-3, M3-4, M3-5, M3-6, M3-7, M3-8, M3-9, M3-11, and M3-15 (Carter and Gutiérrez 2011; 2012).

Before the establishment of PAEZ a number of structures at Las Palmitas were plundered by looters, namely the pyramid and two palaces at the group. The pyramid (Str. M3-1) was extensively mined at the base, revealing the remains of one disturbed burial and a looted crypt in the adjacent structure (Str. M3-3).

The complex sits on a hilltop, spread across an artificial platform of leveled bedrock. The group's main features include a large south facing mortuary pyramid (Str. M3-1) and the plaza that it overlooks, a raised patio with two monumental palaces (M3-6 and M3-7) that face east and west towards one another and a bench feature that frames the north end (M3-8), and a wide viewing platform to the south (M3-13). Aside from these defining structures, a number of smaller mounds with what would have been perishable superstructures also dot the group. These surround the base of Str. M3-1 and the south and east edges of the main plaza.

The monumental architecture at Las Palmitas was made of shaped limestone blocks and thick stucco that are characteristic of Late Classic masonry. This appears in contrast with low mounds that lacked permanent superstructures and Str. M3-8's Terminal Classic phase, which are composed of assorted rough stones in loose arrangements. Quarries and topographic features are difficult to distinguish along the dynamic terrain of the escarpment in remote

sensing data, but two small potential quarries and one depression that may have served as an *aguada* immediately west of La Palmitas could have supported the population here and their building endeavors. The cultural materials uncovered from this architecture revealed an occupation at Las Palmitas from the latter half of the Late Classic through the Terminal Classic, with faint traces of activity ending in the Early Postclassic.

Las Palmitas: History of Construction

Construction at Las Palmitas began with the levelling of bedrock to create an even terrace on the valley ridge. However, because of the slope of the escarpment this required various feats of engineering; builders shaped the bedrock at the group into two separate planes to support the northeast and southwest sections of the compound respectively, and built up the south and east edges of the bedrock using mud and rocks to extend the terrace. From this point occupants laid a thin layer of fill over the terrace, followed by a stucco floor of mid to late eighth century date.

Once the base of Las Palmitas was primed structures went up in a singular massive building event. The most defining architecture at the complex was its pyramid, Str. M3-1. First a platform was erected as the footprint for the pyramid, followed by the structure itself. Builders erected the pyramid in a single episode using a variety of fill materials, including bajo mud and crushed limestone, and finished off by a stone superstructure at the summit (Carter 2014). The pyramid itself was never resurfaced. At some point in the Late Classic, after the original construction of Str. M3-1, locals resurfaced the plaza in front of the pyramid and built a small shrine (Str. M3-3) that linked to the southeast corner of the pyramid base. Beyond this associated addition, however, no modifications were ever made to Str. M3-1.

A platform built in the middle of Las Palmitas in the Late Classic housed the compound's palace patio group. This architectural group was comprised of two masonry range structures (Str. M3-6 and Str. M3-7), each divided into three rooms, and one low wall or bench made of stone and stucco coating at the north edge of the patio (Str. M3-8). The patio floor was resurfaced twice in the Late Classic, and alterations to Str. M3-8 in the Terminal Classic transformed it from a parapet or bench to a two-tiered platform with a bracket-shaped top tier that opened toward the patio. This structure was interpreted as a possible riser for viewing or presiding over semipublic events that would have taken place at the palace patio (Carter 2014). Notably, this is the only Terminal Classic construction phase at Las Palmitas, despite the continued occupation of the compound.

A low mound that frames the south end of the main plaza at Las Palmitas is representative of the non-monumental architecture at the group. Structure M3-5 was also built in the Late Classic facing the pyramid at Las Palmitas. The platform was built in a two-tiered shape, with the second tier in a bracket form extending towards the center of the plaza. Other than a minor resurfacing at a later date in the Late Classic, the structure never underwent any major renovations, although associated ceramics indicate that the mound was used into the Terminal Classic.

Overall, the stratigraphy at Las Palmitas indicates that most of the complex, with its pyramid, palaces, and semi-perishable mounds, was constructed in a single building phase in the eighth century. Beyond this, the group saw only minor modifications, including the addition of a small shrine off of Str. M3-1 and the laying of new floors. The addition of Str. M3-8 at the palace patio group in the Terminal Classic suggests that the aristocracy at Las Palmitas was still very active even after the abandonment of the Acropolis at El Zotz. This has been interpreted as a possible indication that the remaining court of Pa'ka'n shifted to Las Palmitas in the Terminal

Classic, but whether the strength of the Pa'ka'n dynasty stayed intact in the move is a separate issue (Carter et al. 2018).

Las Palmitas: Features

The depositional features uncovered at Las Palmitas spanned the group's main occupation, although a number of the Late Classic contexts were looted (Table 2). Burials and a votive cache were unearthed within the monumental structures of the compound. Burials, both looted and intact, were found in the palace patio group and the pyramid and its attached shrine, while a votive offering was cached in fill of the pyramid during its construction. Domestic refuse was distributed off the sides and backsides of platforms, one off of the palace patio group and the other off the southern edge of the main plaza at Las Palmitas (Table 3-4).

Table 2: Depositional features at Las Palmitas

Feature	Structure	Provenience	Estimated Date
Cache	M3-1	EZ-4E-8-1	Late Classic
Burial - Looted	M3-1	EZ-4X-8-1	Late Classic
Burial - Looted	M3-3	EZ-4X-13-3	Late Classic
Burial 7	M3-8	EZ-4G-1-5	Terminal Classic
Household Midden	M3-9	EZ-4H-2 and 3	Terminal Classic
Household Midden	M3-5	EZ-4I-7 and 9	Terminal Classic

Table 3: Summary of domestic refuse from EZ-4H-2 and 3 at Las Palmitas by artifact counts

	Ceramics	Lithics	Obsidian	Jade	Fauna	Shell	Figurines	Total
Midden Materials	3951	232	32	0	76	297	0	4588

Table 4: Counts of vessel parts in domestic refuse from EZ-4H-2 and 3 at Las Palmitas

	Midden Pottery
Rim	277
Neck	196
Body	3294
Base	165
Foot	18
Other	1
Total	3951

La Luna: Investigations and Setting

La Luna is a residential group comprised of 20 mounds spaced across three artificial terraces, approximately 2 km east of the El Zotz epicenter (Figure 19). Archaeologist Omar Alcover Firpi first identified La Luna during reconnaissance in 2015, and in 2017 I led a pilot study to clean out looter's trenches in three structures and dig test pits around the complex's main patio (see Alcover Firpi 2016; Garrison 2018). The exceptional quantity and quality of the pottery that was collected from these excursions prompted the return to the site in 2018 and 2019 for more thorough investigation. Excavations in 2018 focused on clearing and stabilizing looters trenches around the group while placing test pits behind structures in search of refuse deposits (Bishop and Rosales 2019). These investigations identified two principal structures (T1-11 and T1-3) around the main patio at La Luna that yielded the most material and information regarding activities at the group. In 2019, structures T1-11 and T1-3 were targeted for extensive architectural excavations, including horizontal exposures to reveal the final phase of each mound and vertical trenches to show the occupation and construction history in each (Bishop 2020). In total 9 structures were investigated.

It is important to note that these excavations are not the first to have occurred at La Luna. The high-quality ceramics and the easily penetrable, modest architecture at La Luna,

combined with proximity to a logging road, has made the group a target for extensive looting. Despite being located inside a national reserve, occasional surveillance by security has done little to protect the La Luna Group from illicit excavations. Looting operations target burials inside structures for their precious grave goods, especially finely painted vessels, which are abundant at the complex. Upon returning to La Luna in 2018 and 2019 it was apparent from well-trodden paths surrounding the group and the remnants of a nearby poacher's camp that the area still experiences a high level of foot traffic. Such activity likely comes from poachers who can plunder structures opportunistically given the minimal surveillance in the area. For this reason, a full-fledged excavation was established at La Luna, to both stabilize the structures already damaged by looting and to help deter further probative activities.

The domestic refuse uncovered around La Luna suggests that the main occupation of the complex took place on the lowest terrace around its central patio. The bounds of this patio are formed by six structures (T1-5, T1-6, T1-7, T1-8, T1-10, and T1-11) with a seventh adjacent structure to the southeast (T1-3). The second terrace possesses three low mounds along the south and west terrace edges (U1-5, U1-6, and U1-7), and one sizeable mound at the center of the space (U1-4). The final, smallest terrace is marked by two low mounds (U1-2 and U1-3). There are also seven standalone structures distributed along the incline of the escarpment that do not form any enclosed spaces.

The low mounds at La Luna would have served as platforms for perishable superstructures that housed indoor living spaces. The structures themselves were of variable height, ranging from 0.5 m to 1.5 m tall, and were built with materials and methods similar to the commoner house mounds found around the core of El Zotz in the Terminal Classic (de Careteret 2017). Most of the structures are composed of roughly cut limestone blocks and thin stucco floors that quickly degraded, leaving only patches of the surfaces that once existed. Raw

construction materials were likely obtained from the five quarried zones around La Luna, and augmented with household refuse that was used in fill. Based on the ceramic assemblage from this refuse, La Luna was occupied in the Late and Terminal Classic, which covers the peak and the decline of El Zotz.

La Luna: History of Construction

It is evident that before any construction took place at La Luna the land was already occupied and the residents shaped the bedrock for their various needs. As a first step the bedrock that rises at the base of the escarpment was leveled and shaped into the three terraces that now define La Luna. Chultuns discovered beneath structures T1-10 and T1-11 on the first terrace were originally carved for use as storage chambers for food and household goods until they were filled in and built over in the Late Classic. Similarly, post holes in the bedrock under Str. U1-2 on the third terrace indicate a perishable structure was mounted directly into the bedrock before its Late Classic successor was built. While it is impossible to date these features, it is notable that they correspond with the location of Late Classic structures, suggesting a continuity in the use of space by residents. Surprisingly, while test pitting the main patio at La Luna (T1-Pl.3) a circular cut in the bedrock floor was partially uncovered and carbon dated to the Late Preclassic, which is much earlier than the material culture at La Luna. This evidence of Preclassic activity at the group is singular, but suggests that the area was used for ephemeral activities even before it was built up.

Structure T1-11 appears to have been one of the main buildings at La Luna, aligned along the north edge of the main patio group. Local residents built this mound over a pre-existing chultun that was decommissioned and packed with a ritual deposit before being sealed in the first half of the Late Classic. It was not uncommon for the Maya to place sacred offerings

or burials inside these chambers towards the end of their use life, or to even use them as trash receptacles in their final phases, so it follows that the state of this chultun reflects its final ceremonial moments before being symbolically interred by the construction of Str. T1-11. Two carbon samples from inside the chultun date the ritual deposit between AD 652-688 (Beta-502776 and Beta-502777, 91% probability). Given that construction on Str. T1-11 likely began soon after this event, this places the first building phase in the late seventh century.

Poor preservation made it difficult to distinguish among construction events at Str. T1-11, but a unit on the northeast corner of the structure yielded some partial floors for clarification. A thin floor above bedrock represents the first building phase of Str. T1-11, followed by a layer of dense fill dated to AD 652-722 (Beta-537762, 72.9% probability), and a second, thicker floor that delineates the beginning of a basal platform with two ascending tiers. Unfortunately, it was not possible to determine if the multi-tiered platform was constructed all in one event, or if the different tiers were added at later dates. At the very least, this sequence demonstrates that the inhabitants laid a floor surface over bedrock, followed by a major construction event in the late seventh or early eighth century, while ceramics show further continuity into the Terminal Classic. Horizontal exposures in the center of the mound show that the final iteration of the structure was divided into two distinct upper platforms on the east and west ends of the mound, with an open section in the middle linked by the basal platform.

A similar sequence is observed at Str. T1-3, which borders the south edge of the first terrace, approximately 10m east of the central patio. Profiles of this structure show that the inhabitants laid a dense foundation of building fill with carbon from AD 656-727 (Beta-537764, 68% probability). Above this, residents plastered a thick stucco floor, followed by additional layers of loose building fill. Horizontal excavations of the northeast corner of Str. T1-3 revealed the most clearly defined architecture at La Luna, with well-preserved retaining walls and an

intact floor in front. Carbon on top of this floor dated to AD 764-891 (Beta-537765, 84% probability), while ceramics confirmed that this structure was in use into the Terminal Classic . As at Str. T1-11, settlers built at least two clear phases of Str. T1-3, but the final phase of T1-3 is remarkably better preserved. Notably, Terminal Classic occupants removed wall stones from the floor of this final phase at some point after their original placement. The reuse of architectural stones is a trend across Lowland Maya sites in the Terminal Classic, thus this transformation process is consistent with a Terminal Classic occupation at La Luna.

The architectural sequence observed above is seen in structures on both the first and second terraces at La Luna. Profiles of looters trenches typically reveal one to two distinct stucco floors sandwiched between large layers of muddled building fill, indicating one construction event followed by a second significant remodeling of select structures. These two building phases may have also been separated by revisions and thinly resurfaced floors that did not preserve in the stratigraphic sequence. Radiocarbon dates indicate the first major construction phase occurred at the central patio of La Luna likely in the late seventh century, and was followed by a second phase that can definitively be identified at Str. T1-3, but that is undetectable at Str. T1-11. This final phase was utilized into the Terminal Classic.

La Luna: Features

A range of depositional features on the first and second terraces at La Luna represent remains of discrete ritual events and domestic activities over time (Table 5). Burials, most of which were exposed by looters, were encased in the architecture around the central patio group, with one additional example in the focal mound of the second terrace (Str. U1-4). In addition to these graves, a dedication deposit and a termination deposit were found below and above Str. T1-11, effectively sandwiching the building with ritual activity. Waste from household

practices was uncovered immediately behind or to the side of structures on the first terrace, again mainly surrounding the central patio (Table 6-7). These features span the time of occupation at La Luna, extending from the early Late Classic to the Terminal Classic.

Table 5: Depositional Features at La Luna

Feature	Structure	Provenience	Estimated Date
Burial 34 - Looted	T1-10	IR-58A-2-1	Terminal Classic
Burial 35 - Looted	T1-7	IR-58B-1-1	-
Burial 36 - Looted	T1-7	IR-58B-2-1	-
Burial 39 - Looted	U1-4	EZ-27G-1-2	-
Ritual Deposit	T1-11	EZ-27C-2-5	AD 652-688
Burial 38	T1-11	EZ-27C-9-9	AD 652-722
Lithic Deposit	T1-11	EZ-27C-9-5	-
Ceramic Deposit	T1-11	EZ-27C-11-4	Terminal Classic
Household Midden	T1-3	EZ-27D-1 through 7	Late - Terminal Classic

Table 6: Summary of domestic refuse from EZ-27D-1 through 7 at La Luna by artifact counts from

	Ceramics	Lithics	Obsidian	Jade	Fauna	Shell	Figurines	Total
Midden Materials	5041	225	44	0	26	1	4	5341

Table 7: Counts of vessel parts in domestic refuse from EZ-27D-1 through 7

	Midden Pottery
Rim	470
Neck	286
Body	4048
Base	206
Foot	21
Other	10
Total	5041

5. BUILT ENVIRONMENT

Ancient Maya Homes

Despite common anthropological associations with domestic life, ancient Maya houses were anything but mundane. The basic elements in an ancient Maya house are a metaphor for the Maya cosmos; the four corner posts of the typical rectangular house are also representative of the four directional trees of the universe, while the hearth in the center of the house symbolized an axis mundi (Taube 1998). As cosmic spaces, dwellings housed not just the living, but also the dead. The Classic lowland Maya regularly buried their deceased in house mounds, so that family homes also functioned as a permanent residence for the family's ancestors (McAnany 1995). Given the cultural significance of residences in Classic Maya society, it can be assumed that careful thought and meaning was embedded in the construction of Maya household groups. Some of this information can be read from site maps and architectural plans of ancient Maya residential groups or through qualitative and quantitative assessments of architecture (Abrams 1984; Martin 2001). The settings that people construct for themselves to live in are telling of their political capabilities, concerns, interests, and aspirations.

Generally, the location of a residential complex reflects the priorities of its occupants; a location may be chosen for access to water or food, for security, for nearby transportation routes, for proximity to other major urban centers, or for its position in a culturally significant landscape. In the Preclassic, sites in the Peten tended to concentrate around standing water features because the burgeoning permanent settlements from this time period needed sufficient water to support the growing number of residents (Ashmore 1981). But as the political and economic situation in the Peten changed at the end of the Preclassic, so did settlement priorities, and populations abandoned low-lying, exposed sites for higher ground in naturally

defensible locations (Valdés and Fahsen 1995; Doyle et al. 2012). These same motivating factors can be noted on a smaller scale with residential groups rather than with entire sites.

The layout of housing complexes can demonstrate how activities were divided up spatially and how accessible these different activity areas and the people in them were to each other (Martin 2001). Some layouts were replicas of the spatial organization of other sites, signaling political relationships between sites (Ashmore and Sabloff 2002; Houk 2003).The finished form of ancient Maya residences can be used to infer the resources and expertise available to the families that built them; more elaborate architecture required builders of greater skill and experience, and residences of monumental scale required more materials and people than were accessible to the average Maya household. These metrics indicate the extent of outside labor that a family could control or persuade, and the professional knowledge of that outside labor.

In this chapter I will use the built environment to identify the most likely candidates for a secondary elite compound. Moreover, in the process of this I will determine the strategies that each potential sub-royal lineage used to maneuver and prosper in the political system at El Zotz. By analyzing the location and spatial organization of each lineage group I hope to identify the practical motivations and ideological principles that each lineage pursued. Additionally, I will consider the nature of the architecture and terraforming at each complex and the sum of labor efforts that were expended on behalf of each family to establish the size and skill of the labor force that each family controlled. These aspects of the built environment should relay the strategic choices as well as the political pull of each family.

Background and Methods

Classic Maya Social Organization

Plans of ancient Maya sites along with ethnographic and ethnohistoric records have been of particular use for unraveling the general social organization of the ancient Maya. (Haviland 1966b; Ashmore 1981; Ashmore and Willey 1981; Lohse 2004). The Maya typically built their residences facing inward around rectangular patios, hence the moniker “patio group”. Multiple patio groups often clustered together to form larger residential groups, also termed compounds or complexes, and it was common for occupants to put noticeably more labor into one or two dwellings in their residential compound (Haviland 1981; Eaton 1987; Hendon 1991; Gonlin 1993). Within compounds were additional ancillary structures, identifiable by their utilitarian assemblages and small footprint, and one or two ritual structures characterized by tall, square platforms, miniscule interior spaces, and offerings as well as ancestral burials (Haviland 1985; Benavides-Castillo 1987; Gonlin 1993). These shrines or temples were architecturally unique from the other structures in residential groups, and usually placed on the east side of formal patios (following Plaza Plan 2 at Tikal), but sometimes appeared on the north end, particularly in complexes with a less structured layout (Becker 1971; Chase and Chase 2001).

Using ethnographic studies of the historic and modern Maya, archaeologists interpret patio groups and larger residential complexes as the households of extended families bound by a real or imagined lineage (Wauchope 1934; 1938; Vogt 1969; Haviland 1966b). This interpretation has been recently underscored by a largescale study of human remains at Copan, which found that the majority of occupants in the same patio group were biologically affiliated, but kinship in the strict sense of the term was not a requirement for membership (Miller 2014). Dominant structures are believed to be the households of lineage heads, who according to Postclassic records held great status and responsibility within their broader lineage group

(Hendon 1991; McAnany 1995). This interpretation is further corroborated by higher quantities of prestige goods associated with dominant structures (Hendon 1991). Ritual structures, on the other hand, were family shrines for communal ceremonies that connected the entire lineage group and legitimized the group's claims to physical, political, and ideological resources in the larger context of the site (McAnany 1995). In this way archaeological, historical, and ethnographic records help Mayanists to interpret the organizational significance of Maya settlement patterns.

Spatial Planning

The spatial design of Classic Maya residential groups were dictated by a blend of form and function. The location and layout of Classic Maya sites were motivated by practical principles as much as they were by ideational constructs and social doctrines. Thus an analysis of the location and layout of ancient Maya residential groups requires considering both the semiotic and the practical aspects of the built environment.

The ancient Maya built their sites in positions and arrangements laden with symbolic meaning. Maya sacred geography imprinted the Maya worldview onto the ordering of space (both horizontally and vertically) within the physical landscape. The ancient Maya manifested these principles in their own lives through their choices in where to live and how to arrange architecture. By embodying their worldview in their living spaces the Maya sought to reproduce or capitalize on certain cosmic forces (Ashmore 1991; Ashmore and Sabloff 2002; Vogt 1986). In addition to higher ideological concepts, the Maya built environment was designed to express political relationships. Communities constructed royal and civic-ceremonial spaces to replicate the architectural arrangements of their political affiliates. Sometimes shared sites plans reflected subordinate-dominant relationships between unequal political powers, while other times they

reflected heterarchical regional ties between neighboring sites (Ashmore and Sabloff 2002; Houk 2003; 2017). In both cases, site plans are used by Classic Maya communities to strategically align themselves with select political entities.

Alternatively, the way that people utilized and moved through spaces on a regular basis was equally significant to the arrangement of architecture in space. The physical setting of domestic life shaped the practices of the people living there, so it is useful to consider the functional effect that architectural arrangements had on daily life. To evaluate the practical results of residential spatial planning on residents I will scrutinize site plans following a hermeneutic approach. A hermeneutic analysis of settlements involves reading site maps and plans like texts for spatial syntax (Preziosi 1979; Martin 2001). Functional aspects considered in site plans include proximity to other geographic and man-made features, access between the group and its surroundings, visibility inside the group, demarcation of spaces within the group, and access between those spaces in the group.

Sacred and political symbolism, and practical issues like proximity, visibility, and accessibility can be examined on multiple scales by looking at the location of a residential group broadly, or by examining the layout of architecture and space within the group. In this chapter I plan to consider the pragmatic and the emblematic logic behind the construction of residential groups at El Zotz on both scales, first with the location of each architectural complex and then with the layout. While the practical approach to architecture can be self-explanatory, the cultural symbols embedded in spatial designs require some background in the ancient Maya traditions that regulated space. The two main facets of Classic Maya society that dictated site plans are explained in detail below.

Sacred Geography

Cosmovision, the merging of time and space into an integrated whole, heavily influenced the spatial planning of cities in Mesoamerica. One of the uniting principles of Mesoamerican culture is cosmic spatial organization and the idea that the cardinal directions divided the world into four quarters (Vogt 1969; Carrasco 2013). At the center of this cosmogram was the axis mundi, which links the earthly realm to the heavens above and the watery underworld below. The quadripartite world view is apparent in the layout of Classic Maya sites, which were built on north-south and east-west trajectories at different scales (Ashmore 1991). In the Preclassic, the Maya favored building sites on an east-west alignment, reflecting the time element of cosmovision (Ashmore 1989; Ashmore 1991; Ashmore and Sabloff 2002). Solar trajectories were integral to Maya cosmology; every day the sun was born, matured, and then returned to the underworld (Coggins 1988). Different gods embodied the sun at different points in this journey, and representations of the rising sun were related to the birth of the cosmos (Taube 1992).

Architecturally, this manifested in a focus towards the east and on east-west alignments. E-Groups, architectural complexes developed in the Preclassic to mark the solstices and equinoxes, exemplify the ancient Maya's interest in solar cycles from this time and the Maya's fascination with the east (Ricketson and Ricketson 1937). A Classic period parallel to this are the twin-pyramid groups at Tikal, which featured pyramids on the east and west ends of a large plaza, presumably to honor the rising and setting of the sun (Becker 1971; Coggins 1980). Diurnal patterns are also represented in the stucco masks on the Temple of the Night Sun at the Early Classic palace of El Zotz (Houston et al. 2015). These masks feature composite deities with aspects of the sun god and jaguar god of the underworld (JGU), referencing the sun's passage through the underworld at night (Taube and Houston 2015).

In the Classic period civic-ceremonial spaces shifted to a north-south alignment (Ashmore 1991; Ashmore and Sabloff 2002). The twin-pyramid complexes erected at Tikal not only emphasized the east and west, but also included reverential structures to the north and south for ancestor veneration and private esoteric ceremonies. To the north a stela and altar were erected honoring the ruler that celebrated the K'atun ending and commissioned the complex. This worship of individual monarchs is a drastic difference from the community centered E-Groups of the Preclassic, which revered and tracked natural phenomena (Doyle 2017). Maya scholars posit that north and south also refer to up and down, and that north is actually an alignment towards the sky and heavens where royal ancestors reside (Coggins 1980; Coe 1988:235). In the twin-pyramid complexes the stela to the north depicting a ruler is considered a reference to royal ancestors in the heavens, while the 9-door building on the south end is thought to be a reference to the 9 levels of the underworld (Coggins 1980). Following this interpretation, Ashmore posits that the Classic period shift to a north-south site orientation may refer to the Maya's investment in royal ancestors, dynasties, and kings in the Classic period (Ashmore and Sabloff 2002).

Another way that the ancient Maya harnessed sacred geography was by building their temples and palaces in relation to caves and cenotes, which are prevalent in the karstic limestone of the Lowlands (Stuart 1997; Brady 1997; Brady and Ashmore 1999). The Maya believed that the vertical levels of the axis mundi were embodied by mountains, which connected the earth to the skies, and cave features, which provided access from the earth down to the underworld (Ashmore 1989; Stuart 1997). Hilltops and caves were ritually charged spaces where the ancient and modern Maya made offerings and staged esoteric rites, (Shane 1984; Stone 1995; Prufer and Brady 2005; Vogt and Stuart 2005). This is a broader Mesoamerican phenomenon that is best embodied by the city of Teotihuacan, which was built in alignment with

the mountain Cerro Gordo over two natural cave features, which were enlarged to allow for ritual activities beneath the city's major temples (Hayden 1981; Gómez Chávez 2017).

El Zotz is no exception to these principles. The early monumental structures at El Zotz were built along an east-west causeway at a 71° angle, which is the angle of the sight line from the founders tomb at El Diablo to the large bat cave in the Buenavista Escarpment (Figure 20)(Houston et al. 2015). Not an uncommon phenomenon, similar site configurations have been recorded at Dos Pilas, Q'umark'aj, and Copan (Brady 1991; Brady 1997; Fash 2001). In all of these cases, royal centers and ritual monuments were erected in alignment with cave and mountain features, both natural and man-made, presumably for their supernatural significance. For this same reason it is suggested that the cave near El Zotz held cultural or spiritual significance to the local people of the Buenavista Valley (Houston et al. 2015).

As the core of El Zotz expanded in the 6th century its orientation changed to reflect the latest trends, and the new Late Classic ballcourt, plazas, palaces, and commemorative temples were built along a north-south alignment. Presumably this shift is an acknowledgement of the supremacy of the local dynasty at El Zotz, and reflects how Late Classic Maya politics were centered around the royal court.

Political Landscapes

Site plans and architectural arrangements were also used by the Maya as a symbolic language to demonstrate political affiliations. Architectural arrangements can reflect hierarchical relationships where subsidiary communities construct architecture replicating the layout of architecture at their primary center. This phenomenon has been studied at Xunuatunich, where rulers constructed a new ceremonial core modeled after Group B at Naranjo once Xunantunich came under the control of Naranjo in the Late Classic (Ashmore and Sabloff 2002). Similarly,

secondary settlements in the Usumacinta region were oriented pursuant to the overall alignment of the primary center that they were politically allied with (Golden et al. 2008). Sites under the hegemony of Piedras Negras were built on a 30 degree alignment like Piedras Negras, while sites under Yaxchilan were built at an orientation of approximately 118 degrees like Yaxchilan itself. In the Three Rivers region of Belize and Guatemala striking resemblances between the major center of La Milpa and Dos Hombres indicate that the population at Dos Hombres remodeled the site in the Late Classic to resemble La Milpa (Houk 2003). This is interpreted as a sign that Dos Hombres became a subsidiary community of La Milpa in the Late Classic. This phenomenon extends across the Lowlands, as evidenced by the small center of Labná in the Puuc region which was modelled after its larger and more powerful neighbor, Sayil (Ashmore and Sabloff 2002). Parallels in spatial layouts between residential compounds around El Zotz may similarly reflect strong affiliations between lineages.

Architecture

Maya architecture ranged from monumental buildings on stone platforms to perishable huts built over bedrock. As discussed in Chapter 2, the amount of energy and level of expertise that went into building these edifices is often used as an indicator of political or social power. Different scales of construction projects require the ability to procure labor on different levels (Abrams 1994). Obtaining human power beyond an individual's nuclear or broader kinship group requires the means to either influence or coerce external people (de Carteret 2017). Thus, the ability to acquire additional labor for personal projects reflects an individual's status or power (Abrams 1984).

The architecture found throughout El Zotz varied widely between the monumental civic-ceremonial core of the site and the vernacular perishable dwellings that encircled the core. Late

Classic Maya architecture was primarily cell architecture; retaining walls were erected in the footprint of a rectangular platform and then the interior was filled with rocks, midden materials, dirt, and mortar (Loten and Pendergast 1984). Finally, the platform was typically sealed with plaster flooring and then superstructures were erected on top. Superstructures may be crafted with perishable materials, stone, or a combination thereof. Masonry superstructures could be very elaborate with windows and interior benches, and could utilize complex architectural techniques such as the corbel vault to allow for masonry roofs. From the outside, architecture could also be coated in stucco and topped with elaborate sculpted facades.

While these buildings are easy to identify from the surface at archaeological sites, other structures existed that were entirely perishable. These structures lacked masonry platforms and instead were built directly over bedrock, or over loose layers of gravel and tamped earth that were laid down to slightly elevate the structure and provide an even flooring. What remains today of these buildings are post holes cut into bedrock, and mounds of loose fill.

All of these forms of architecture are present at El Zotz, the different forms representing different levels of labor investment and building expertise. Based on the architecture at the Late Classic residences in this study, I have identified several features in the archaeological record that signal varied levels of labor investment. The least skilled and costly (in labor) Late Classic residential structures found in this study are those perishable superstructures on tamped earth and fill platforms without masonry retaining walls. This is followed by perishable superstructures mounted on masonry platforms where the retaining walls are loosely assembled using rubble (unshaped) facing stones (Loten and Pendergast 1984; Messick Braun 2018). Structures with these fundamental elements did not require any professional building skills or knowledge to assemble, and are typically referred to as vernacular or folk architecture, or “basic house forms” (Rapaport 1969; Abrams 1984; Webster 1998). The “improved form” of buildings as defined by

Elliot Abrams required additional work and expertise to construct, employing features such as shaped stones, dressed stone walls, masonry superstructures, vaulted roofs, and plaster surface coating (Abrams 1984:54-55). More work are the masonry platforms with retaining walls of shaped facing stones, topped with perishable superstructures. The most time-consuming buildings to construct are those with masonry, shaped stone platforms and superstructures. Features of these buildings requiring additional work or skill include windows, interior benches, and vaults.

Lime plaster also reflected the labor investments and resources available to the extended families at the different residential group. Plaster flooring was laid down over platforms, on patio and plaza floors, and occasionally on walls for dressing. However, thin plaster did not survive well and can become undetectable between layers of building fill after centuries of degradation. Thick, extant floors reflect access to large quantities of burnt lime, which required extra labor to fire in kilns and lay (Seligson et al. 2017). In contrast, thin, degraded floors indicate that builders had access to comparatively less plaster, while structures without plaster floors signal significantly less investment in architecture.

Depending on the size of the space, paving shared outdoor spaces could require vast amounts of burnt lime. Even thin patio floors would have required considerable lime and labor to lay, while thick floors would have entailed extraordinary efforts for both plaster production and application. This labor investment is obviously reduced or multiplied based on the size of the space.

The features above are the metaphorical building blocks of Maya residential architecture that can still be seen in the material record. The complexity of architectural forms used for dwellings and the construction materials applied in indoor and outdoor living spaces reflect the relative human power, skill, and resources of a household. In this study I gauge the architectural

investment at each residential group using the categorical indicators named above to determine how much relative control each lineage possessed over skilled and unskilled labor in the Late and Terminal Classic.

Energetics

To balance the qualitative interpretations above, energetics analysis is included as a quantitative measure used to calculate the amount of labor actually required to complete different construction projects. This involves calculating the cost (rate of time per task) required to procure and transport raw materials to the construction site, to shape those raw materials into building materials, and to assemble a structure using said materials (Abrams 1994). By converting these components of the construction process into mathematical equations, energetics turns abstract assessments of a structure's quality into quantitative evidence, the goal of this being to "analytically eliminate intersubjective assessments of material culture", while facilitating comparisons (Abrams 1994:38).

The difficulty of energetics analysis is that it is most effective for structures that have been fully excavated. Cost estimates require knowing where raw materials were sourced from to calculate transportation costs, and having specific statistics from each structure in question, including the total square meters of faced stones and retaining walls, and total cubed meters of earth fill and stone fill. Given the intricacies of this process, archaeologists use volumetric calculations as a simplified variation of energetics analysis (Hutson 2016; Chase and Chase 2017). This type of analysis calculates the present volume of archaeological structures based on surface elevations of the structure versus the ground around it.

In this chapter I compare the volumetric sum of construction at each residential group to gain a relative understanding of the amount of work that went into building each complex. A

relatively high construction volume indicates that a cumulatively large labor force was commanded by the inhabitants of the group, a labor force that would have included the aid of people outside of the lineage. Volumetric data was calculated by Garrison using lidar data in ArcGIS.

Because the Maya regularly built new structures over previous ones, using volumetrics as energetics is best done on sites with few construction phases. Because it is difficult to tease out where new iterations of a structure begin and earlier ones end, structure volume only represents the total cumulative work done on a building since its inception. These totals can be deceptive when dealing with a complex that was remodeled multiple times over centuries. The Northwest Courtyard and Las Palmitas are well-suited for a volumetric analysis because they were largely built all at once, with only a few resurfacing or remodeling events over a span of approximately 150 years. La Luna, though occupied for longer than the Northwest Courtyard and Las Palmitas, also did not undergo large remodeling after its original construction. The Acropolis at El Zotz, however, was constructed over multiple periods with several major renovations, so careful limitations were applied to produce a conservative volumetric analysis for that complex.

Another important consideration for an energetics analysis is that the work required to build complexes at El Zotz went beyond erecting architecture. The Buenavista Escarpment required major terraforming before construction at El Zotz due to the sloped landscape and uneven limestone bedrock. Building into the cliffside involved cutting out the bedrock in some areas and filling in depressions in others to create level planes. This significantly increased the amount of labor needed for each project. Unfortunately, it is impossible to determine the amount of fill used to create the even terraces unless the entire terrace is excavated to bedrock. Moreover, when dealing with large, flattened planes it is impossible to know exactly how high

the original bedrock was before being cut. These two factors make it very difficult to calculate the volume of bedrock removed and added to create a terrace. For this reason, in lieu of a volumetric analysis terracing was measured based on the surface area of each terrace, calculated from the base on its footprint. This is not a perfect metric as the original angle of the slope significantly affects the amount of earth moved, but there is currently no algorithm that can extrapolate three-dimensional slope data of this nature using the present lidar processing software (Thomas Garrison personal communication 2022).

Case Study: A Non-elite, Non-courtier Residential Group at El Zotz in the Terminal Classic

At the end of the Classic period a number of non-elite families constructed new patio groups clustering around the core of El Zotz. This shift in settlement pattern from a dispersed hinterland population to a nucleated populace encircling nearby political centers is a phenomenon noted during periods of social and political upheaval in the Maya lowlands. Similar settlement transitions occurred in the Buenavista Valley in the Terminal Preclassic when major Preclassic centers like El Palmar were depopulated in favor of more fortified locations, and at Tikal in the Terminal Classic when sites across the Lowlands were abandoned by their ruling elite (Valdés and Fahsen 2004; Doyle et al. 2012). In both of these cases commoner populations shifted from open, vulnerable settlements along the floor of the Buenavista Valley towards once powerful political hubs in response to regional turmoil. Based on these comparative examples and excavations carried out at Terminal Classic household groups at El Zotz, the same process occurred in the Terminal Classic at El Zotz and the new homes constructed around El Zotz from this time represent the self-sufficient commoner population normally living in the hinterland beyond El Zotz (de Carteret 2017).

Because the Terminal Classic patio groups that ring around El Zotz were occupied by self-reliant families that did not control significant labor forces outside of their own extended kin, these Terminal Classic residences are a good benchmark for understanding the level of investment that an average, independent family in the Buenavista Valley put into constructing its home. This base level of investment in architecture and landscaping establishes a useful point of comparison between commoner and courtier residences, and contextualizes the labor and skill that went into creating the homes of court-connected families around El Zotz. To this end Group I10 was selected as a prototypical example of the residential groups built around El Zotz during the Terminal Classic (Figure 21). This architectural group was composed of four mounds around a single patio, ranging in height from 0.3 – 1.9 m. The structures were basal platforms that supported perishable superstructures, two constructed with block-shaped facing stones, and the other two made with purely vernacular techniques (Abrams 1984; de Carteret 2017). The labor that went into creating this architecture gathered 106.7 m^3 of construction volume over a leveled plane of 869.3 m^2 (Table 8). These building materials and techniques as well as the volumetrics and surfacing represent the typical composition of a non-elite, non-courtier residential group.

Table 8: Volumetric analysis of Structures at Group I10, a Terminal Classic non-elite residential group

Structure	**Volume (m^3)**
I10-4	62.29
I10-3	17.69
I10-2	3.63
I10-1	22.96
Total	*106.57*

The Acropolis

Acropolis Location

The location of the Acropolis follows Classic Maya cultural symbols of the order of space. The Acropolis sits at the apex of the north-south axis in the core of El Zotz (Figure 22). The north in building layouts is interpreted as a reference to upward or skyward, a vertical reference laid flat on a horizontal surface (Coggins 1980; Ashmore 1991). This plays out in Late Classic site layouts, where north is equated with the heavens, royal ancestors, and by association the living royalty. Evidence for this is found at Tikal, Copan, and Sayil, where Late Classic royal courts are located on the north end of the site's north-south axis (Sabloff and Ashmore 2002). The Acropolis at El Zotz follows this same pattern, sitting at the north end of the site's Late Classic civic center. When the layout of El Zotz shifted from an east-west to a north-south orientation in the Late Classic, the people of El Zotz chose the Acropolis as the north anchoring point for the new layout and built all new structures extending southward from the Acropolis. This specific decision to use the Acropolis for the northern terminus of El Zotz demonstrates the importance of the royal residence in the Late Classic, and follows contemporary conventions that equate the royal family with the heavens and the principal ancestors of El Zotz. Furthermore, the reorientation of El Zotz around the royal court reflects the primacy of the royal family in Late Classic politics.

Acropolis Layout

The Late Classic iteration of the Acropolis at El Zotz was comprised of thirteen Late Classic stone superstructures across six Early and Late Classic broad masonry platforms that were arranged around a large courtyard (Figure 23). Buildings contained either single chambers or multiple lateral chambers typical of the "range structures" that characterize Maya palaces.

Buildings reached between 1.1 - 24.8 m in height over a total area of 98,021 m^2. Attached to the royal courtyard and its range structures was Str. L7-11, a tall pyramid topped with a temple that was used for important rituals. Burn marks on the walls and floor inside the temple and a ritual deposit consecrating the building confirm that Str. L7-11 functioned as a sacred space for the royal court. The eastern location of Str. L7-11 is consistent with the placement of ritual structures in formal patio groups (Becker 1971).

One unique aspect of Str. L7-11 is that it was added on to the outer edge of the Acropolis, and the pyramid itself actually faces out on an open plaza in front of the entrance to the Acropolis. Structure L7-11 is considered part of the Acropolis because its eastern placement follows the conventions for a residential ritual structure, because it was built at the same time that platforms and superstructures on the east end of the Acropolis were enlarged, and because a small pathway links Str. L7-11 to the more secluded, eastern courtyard of the Acropolis that has been interpreted as the private residential area of the palace. All of these facts denote a close relationship between Str. L7-11 and the residential structures inside the palace, one where the residents in the palace needed direct, private access to the pyramid.

Despite the connection between Str. L7-11 and the rest of the royal palace, there is a clear differentiation between ritual and domestic space at the Acropolis. Str. L7-11 was built jutting out of the side of the Acropolis, facing outward onto a public plaza, rather than being built over an existing structure inside the Acropolis and facing inward on the palace courtyards. Although a secluded pathway runs between Str. L7-11 and the east courtyard of the Acropolis, the pyramid can also be accessed from the public plaza that it faces out on, and courtly audiences would have had to exit the palace and filter into this public plaza just south of the Acropolis in order to view ritual performances at the pyramid. This action literally separated

public rituals from the domestic and political proceedings that took place inside the royal palace at El Zotz.

The Late Classic iteration of the Acropolis at El Zotz was the result of a major building program in the second half of the Late Classic (the Caal phase). At this time builders at El Zotz renovated and expanded platforms in the royal palace, subsuming old substructures and doubling the size of most platforms (Marroquín et al. 2011; Carter et al. 2018). At the same time, the eastern end of the palace courtyard was transformed from an open horizon with a low platform, to a wide platform with two long superstructures that completely walled off the east end of the complex and connected the Acropolis to the new Str. L7-11.

As buildings grew in height and width the Acropolis became more densely packed, and sightlines in and out of the royal palace shrank. Builders widened door jambs, narrowing the entranceways into the Acropolis, and a long, low platform (Str. L7-7) that bisects the interior royal courtyard was enlarged, requiring pedestrians to walk through the building in order to pass from one side of the palace courtyard to the other (Carter et al. 2018). The eastern side of the Acropolis was closed off with wall-to-wall masonry at the same time that Str. L7-11 was added on to the complex, obscuring the southeast entrance to the Acropolis. This trend towards restricting royal spaces in the Late Classic is not unique to El Zotz, and was common in royal residences and ceremonial site cores at this time (Harrison 2003; Awe 2008; Lee 2012; Barrientos Quezada 2014). The phenomenon is usually interpreted as an intentional act by the royal court to increase the privacy and exclusivity of political and ceremonial spaces in the Late Classic (Webster 2001; Martin 2001; Awe 2008). By the end of the Classic period the royal palace at El Zotz was tightly circumscribed around its interior courtyard.

The final plan of the Acropolis epitomized royal Maya courts in the Late Classic. The residences and administrative buildings were monumental, and the religious structure was the

tallest building at El Zotz. The edifices were large and set close together across long platforms, with additional structures obscuring entrances and chopping up the flow of movement through the main courtyard. Furthermore, narrowed doorways reduced sightlines in and out of the royal complex. The complex itself was composed of edifices with small interior rooms that could function for either residential or civic purposes, and an imposing ritual structure placed to the east, in a cosmologically significant location.

Acropolis Architecture

The architecture at the Acropolis is the most elaborate residential architecture found at El Zotz in the Late Classic. Of the nine superstructures and supporting platforms that were excavated all were monumental in scale and construction techniques. The platforms were built with retaining walls of large shaped rectangular stones, and superstructures were made of similar blocks that were stacked and stuccoed (Figure 24-25). The building interiors in the Acropolis included the occasional bench, which could have functioned as a seat in either a residential or a political setting. No features were identified that differentiated whether individual chambers were used for dwelling versus bureaucratic or political purposes. This is not uncommon however, and the versatility of palace chambers is part of the reason why Maya palaces are believed to have functioned as residences as well as political and administrative centers (Satterthwaite 1935; Martin 2001; Webster 2001). The open patio inside the Acropolis was paved with multiple layers of plaster over the years, and this same lime substance was also used to lay down thick floors inside structures and to stucco superstructure walls.

In the Terminal Classic the people at El Zotz packed an extensive termination deposit around the Acropolis before laying down a new layer of construction fill. This fill is interpreted as

preparation for a new building phase that never manifested, and the Acropolis was instead abandoned in the middle of this renovation (Newman and Menéndez 2012; Newman 2015).

Acropolis Energetics

The Acropolis is difficult to assess with volumetrics because new basal platforms were built over pre-existing Early Classic structures during a major Late Classic renovation of the complex. For this reason, the volumetric analysis of the Acropolis was restricted to edifices that were built entirely in the Late Classic, namely Str. L7-11 and all surviving superstructures. The resultant volume of Late Classic construction at the Acropolis was 17,870.12 m^3 (Table 9). Because the Late Classic iteration of the Acropolis was built over a pre-existing terrace, terraforming was not factored into the labor calculations for this complex.

Table 9: Volumetric analysis of Late Classic superstructures and pyramid in the Acropolis

Structure	**Volume (m^3)**
L7-1	877.45
L7-2	15.97
L7-3	175.71
L7-4	616.38
L7-5	29.33
L7-6	1293.56
L7-7	11.66
L7-8	488.19
L7-9	551.95
L7-10	115.34
L7-11	12266.18
L7-21	587.85
L7-22	430.64
L7-23	409.91
Total	*17870.12*

Building efforts in the Late Classic at the Acropolis were particularly concentrated on Str. L7-11 (12,266.18 m^3). This pyramid was the ritual structure of the Acropolis, but also a major landmark as the tallest edifice at El Zotz. Given that other large pyramids were already built for public rituals at El Zotz in the Early Classic, Str. L7-11 appears to have been erected specifically to provide a ritual sanctuary for the royal family.

Aside from the pyramid, the largest buildings at the Acropolis faced in on the palace's west courtyard, where individuals entered through Str. L7-6. Structure L7-6 was the largest structure in the Acropolis (1,293.56 m^3) and the main entrance into the complex from the site core. Immediately to the west after entering the west courtyard was Str. L7-1, the second largest building inside the palace (877.45 m^3), and the focus of Terminal Classic renovation efforts, suggesting that the structure was a focal point inside the Acropolis. The massive labor investment into these two structures provided a grand entrance into the royal palace and immediately confronted visitors with impressive courtly facilities.

Overall, it appears that the Pa'ka'n royal family in the Late Classic invested their labor forces in constructing buildings that were specifically intended to provide visual impact. From the moment that visitors approach the Acropolis they are struck by the immense size of royal pyramid and the grandeur of the palace entrance, followed by a striking strip of palace chambers.

Although this output is conservative, as it does not consider any of the platform renovations added onto Early Classic platforms, the volumetrics are still far beyond any other Late Classic residential group at El Zotz. The extraordinary construction volume at the Acropolis reflects the ability of the Pa'ka'n royal family to control a massive labor force. This level of influence over people outside of the king's own family demonstrates the political power that the ruling lineage at El Zotz possessed.

Acropolis Interpretation

The built environment of the Acropolis contains all the hallmarks of a Late Classic royal palace. It is a self-contained complex made up of monumental structures, built with sturdy, shaped blocks and dressed in thick limestone stucco. The stone superstructures enclose small interior chambers in lateral arrangements typical of Maya court buildings, and include features such as vaults and benches. Buildings faced inward onto courtyards, with the exception of Str. L7-11 which was tacked onto the outer edge of the Acropolis as the ritual structure for the group. Of all the work that was put into building the Acropolis, the most labor of all was invested in this pyramid, indicating its importance to the court in the Late Classic. Inside the Acropolis, the most costly structures were those in the west courtyard, where visitors would have entered into the court. This area within the Acropolis was the most publicly accessible, so it is not surprising the most emphasis was put on its visual impact.

Late Classic additions and renovations to the Acropolis closed off the boundaries of the group with tall platforms and sectioned off the open interior into two smaller courtyards. Late Classic builders covered up and closed entrances to the Acropolis, and narrowed the entryways to the vaulted chambers inside the palace. All of this work effectively restricted access to the palace, both physically and visually. Tall structures on all sides of the complex inhibited sightlines into the palace, while buildings and entrance closures directed all public traffic in and out of a single entrance. Inside the Acropolis smaller doorways and separated courtyards also provided greater privacy to the royal occupants from outside visitors (Newman et al. 2018). These characteristics are seen in palaces across the Lowlands during the Late Classic, suggesting broader social trends towards exclusivity as a basis for power.

Finally, the Pa'ka'n dynasty constructed the Acropolis and buildings in relation to it to follow larger cosmological designs. The Late Classic ceremonial core of El Zotz was constructed around the location of the Acropolis, so that the royal palace was situated at the northern apex of the site. This spot in the larger spatial plan of Maya Late Classic sites is often reserved for compounds related to royal ancestors, referencing the heavens and the supernatural supremacy of dynastic lineage members. In this sense the Acropolis of El Zotz was renovated to follow standard spatial trends in the Late Classic and oriented to convey the divine power of the Pa'ka'n court. Moreover, Str. L7-11 was added to the eastern end of the Acropolis in the Late Classic in accordance with Plaza Plan 2, which paid tribute to the rising sun and the sun's resurrection each new day (Becker 1971; Coggins 1980; 1988). The awkward appending of Str. L7-11 separated out the one dedicated ritual structure from the rest of the Acropolis, effectively dividing household and ritual activities. The northern locus of the royal palace and the eastern placement of the royal temple manifested Maya notions of ancestor veneration, mythological time, and cosmic geography that were replicated at Late Classic sites across the Maya Lowlands.

The Northwest Courtyard

Northwest Courtyard Location

The Northwest Courtyard is a residential addition built off the back of Str. L7-1, the structure binding the west end of the Acropolis (Figure 16). When this patio group was constructed in the Late Classic a stairway leading down the southwest corner of the Acropolis linked the royal palace to the Northwest Courtyard, indicating that direct access was needed between the two residential complexes.

Access to the royal palace was a privilege, particularly at El Zotz in the Late Classic when most sightlines and pathways into the Acropolis were closed off by new construction. This entry into the royal palace suggests that the residents of the Northwest Courtyard interacted extensively with the extended royal family next door. Living in immediate proximity to the Acropolis was also symbolic in the same way that proximity to kings in Maya art was symbolic of the status of surrounding figures (Jackson 2009). Moreover, physical space in the site core was limited by the extent of the original terrace cut in the Early Classic, so prime real estate such as a plot next to the Acropolis must have been carefully allotted.

Northwest Courtyard Layout

With only four structures of 0.7–1.5 m in height across an area of 2,073 m^2 the Northwest Courtyard is particularly small for a residential group situated in the middle of the core of El Zotz (Figure 26). Located at the edge of the main terrace in the core of El Zotz, the Northwest Courtyard was largely self-contained and removed from the foot traffic around the site core. The main structure of the group, Str. L7-17, runs along the south limit of the courtyard, blocking most of the inner patio from public view. The four buildings in the Northwest Courtyard would have housed everyday domestic activities at the group, including cooking, cleaning, eating, and sleeping. The Northwest Courtyard lacks a shrine or ritual building, but does connect to the Acropolis by a stairway off of the west side of Str. L7-5 (Haviland 1981; Becker 1991). This staircase linked the entrance of the Northwest Courtyard to an elevated, walled-in patio (Str. L7-5) in the southwest corner of the Acropolis. From this patio one could descend into the center of the Acropolis, in front of the principal palace and civic structures (Strs. L7-1 and L7-6).

Because the Northwest Courtyard was immediately attached to the Acropolis, the occupants may have utilized the resources of the Acropolis in their daily lives. In this scenario, the pyramid of the Acropolis, Str. L7-11, would have also served as the eastern ancestral shrine for the residents of the Northwest Courtyard as well. This may explain why the Northwest Courtyard is so small, because the lineage group that lived there only built the necessary structures, and utilized the resources of the Acropolis wherever possible. In this sense, the families in the Northwest Courtyard may have seen their homes as an addition to the royal palace rather than an independent complex.

Northwest Courtyard Architecture

Despite its proximity to the Acropolis and its location in the monumental core of El Zotz, the architecture in the Northwest Courtyard was almost entirely vernacular, reflecting a modest labor investment and building skill level. The only exception to this was Str. L7-17, which was made with dressed stone and plaster surfacing, but still mimicked the form of a typical house mound rather than monumental architecture (Figure 27). In the Late Classic Str. L7-17 was assembled with retaining walls of large rectangular shaped facing stones coated in stucco, and sealed with thick layers of plaster that still survive today (Newman and Menéndez 2012). The presence of a perishable superstructure on top of the masonry platform is confirmed by postholes in the plaster floor. The remaining three structures dated to the Late and Terminal Classic, but lacked solid retaining walls. Instead, these platforms were erected by laying down layers of loose fill and gravel, and then coating them with plaster to create a superficially even surface (Newman and Menéndez 2012). The patio floors of the Northwest Courtyard were well plastered in the Late Classic to a thickness of 5 cm.

The Terminal Classic iteration of the Northwest Courtyard was considerably less labor intensive. The builders arranged rough unshaped stones to build low platform retaining walls, and the plaster flooring was considerably thinner than on the Late Classic platforms (Newman and Menéndez 2012).

Northwest Courtyard Energetics

When the four structures of the Northwest Courtyard were tallied, their total construction volume was 354.43 m^3 (Table 10). Most of this labor went into constructing Str. L7-17 (199.78 m^3), which was also built using more costly techniques and materials compared to the other mounds in the complex. The labor investment required to shape the blocks of the platform, align them, and stucco them suggests what a volumetric assessment here confirms; that the residents of the Northwest Courtyard spent the most energy on building Str. L7-17 in the courtyard, while the other structures were built to the minimum standard.

Table 10: Volumetric analysis of structures in the Northwest Courtyard

Structure	**Volume (m^3)**
L7-17	199.78
L7-18	51.37
L7-19	56.07
L7-20	47.21
Total	*354.43*

The labor investment in Str. L7-17 is perhaps not surprising given its location in relation to the rest of the site core. Structure L7-17 is the only platform of the Northwest Courtyard that faces outward onto the site core; the remaining structures skirt the edges of the site's terrace and are blocked by Str. L7-17. In this sense Str. L7-17 was the face of the Northwest Courtyard, and was most likely built up to appear as presentable as possible next to the monumental royal

palace. This is also the only structure in the Northwest Courtyard where a burial was located, and the structure appeared to have been the main center of activity in the courtyard based on the materials recovered from Str. L7-17 compared to the other platforms.

The large terrace that the Northwest Courtyard was built on existed centuries before the Northwest Courtyard was erected, so the terracing of the patio was not considered as part of the labor that went into creating the Northwest Courtyard.

Northwest Courtyard Interpretation

The Northwest Courtyard is a small patio group composed of few platforms with perishable superstructures. The only building that was constructed with improved materials like shaped stones and thick plaster floors was the front-facing structure, which was visible to people in the site core. The remaining buildings were purely vernacular, lacking sturdy retaining walls or floors, a stark contrast against the neighboring Acropolis. Despite its simple construction, the proximity of the Northwest Courtyard to the Acropolis is indicative of a close relationship between the occupants of each. Moreover, the Northwest Courtyard contained a direct physical line to the Pa'ka'n court: a staircase leading into the west courtyard of the Acropolis, the functional heart of the court. This access, particularly at a point in time when access to the Acropolis was being restricted by the royal family, suggests that the family in the Northwest Courtyard had an intimate connection to the residents of the royal palace. Furthermore, the northern location of the Northwest Courtyard in the larger cosmogram of El Zotz is symbolic of royal ancestry and the heavens.

While there is clearly a relationship between the family in the Northwest Courtyard and the royal family, the imbalance in architecture between the two complexes tells of an undeniable power dynamic. It is also worth noting that although the Northwest Courtyard was a larger

construction project than a typical independent patio group, the structures in the courtyard were the lowest platforms found in the core of El Zotz. Moreover, these were the only vernacular structures built in the site core. The only exception to this was Str. L7-17, which was built with some improved techniques given its function as a public façade. This relative distinction suggests that while the family living in the Northwest Courtyard may have had access to additional labor for building projects, this labor was largely unskilled, unlike the workforce used for the rest of the site core. The differences in architecture indicate that the people living in the Northwest Courtyard did not have access to the same resources as the royal family, despite living in close contact with them.

The combination of architecture, proximity, and access at the Northwest Courtyard is suggestive of a group of people that were members of the royal court, but who held minimal if any political influence. This situation could apply to a number of lower positions within the court, including non-elite courtiers like attendants and staff, or low-level elites who were perhaps related to the royal family, but who did not possess enough social or political capital to merit residences within the royal court proper. Visual references to such characters in Maya courtly art most likely fell into the generic “attendant” category, as seen in Figures 12 and 13.

Las Palmitas

Las Palmitas Location

North of the Acropolis, at the end of an approximately 800 m, partially vertical hike, sits Las Palmitas (Figure 16). This complex was built on top of the Buenavista Escarpment at a height 72 m above the valley floor. The immediate surrounding hills are sparsely sprinkled with small residential groups from the Classic period, although none built on a monumental scale similar to Las Palmitas. Notably, the location of Las Palmitas does not align with the north-south

orientation of El Zotz from the Late Classic, nor with the east-west orientation of the Early Classic. Instead, the complex sits on its own looking out over El Zotz and the valley from a distance.

The height and relative inaccessibility of Las Palmitas made it defensible from attacks. Historically, the Lowland Maya moved to naturally defensible locations in times of political turmoil; in the Terminal Preclassic populations abandoned large low-lying sites to rebuild in less vulnerable locations, elites constructed new palaces on higher ground, and people erected large defensive walls and moats around existing sites (Valdés and Fahsen 1995; Estrada-Belli 2011). The Buenavista Valley was no exception to this Terminal Preclassic shift, and after abandoning the low-lying site of El Palmar, the local population moved north to the edge of the Buenavista Escarpment (Garrison et al. 2019). Similarly, settlement patterns in the Peten at the end of the Late Classic showed an increase in the use of human-made and natural fortifications, signaling mounting warfare and a growing fear of outside attacks (O'mansky and Duning 1997; Demarest 2004). Given the historical reasoning for similar moves, relocating to higher ground may have been a strategic move by the lineage group at Las Palmitas in reaction to rising political turmoil in the Peten in the second half of the Late Classic, both internally and between sites.

Rather than building off of the site core, the common growth pattern of Lowland sites, the extended family of Las Palmitas chose to pave and build an entirely new residential area at an inaccessible and naturally fortified point in the landscape. In this sense, the people at Las Palmitas chose to give up ease of proximity to their engagements at the royal court, and their access to the resources around the royal court. Instead, the residents of Las Palmitas elected to live somewhere inaccessible. The location of Las Palmitas may be indicative of mounting safety concerns in the Peten in the second half of the Late Classic, but it could also reflect a

willingness among secondary elites to branch out and develop their own independent resources outside of the royal court.

Las Palmitas Layout

Las Palmitas is made up of 15 structures ranging from 0.7 – 12 m in height, spread out across a single terrace of 13,934 m^2 (Figure 18). The main plaza was the primary public space of the complex, dominated by a pyramid (Str. M3-1) for public rituals and attached shrine (Str. M3-3), which entombed a prominent ancestor. As the main stage of public performance at Las Palmitas, the main plaza would have been where ritual authorities acted out sacred rites for centering and sustaining the universe. The main plaza provided sweeping views to the east and south and had two points of entry, making it an open complex both visually and physically.

Although ritual structures commonly appear on the east side of plazas and patios, a northern placement was by no means anomalous (Becker 1971). As previously mentioned, the north end of a plaza, complex, or overall site is sometimes symbolic of the heavens and divine ancestors. This association is particularly clear in the case of structures M3-1 and M3-3, which each housed the remains of at least one individual. Structure M3-3 in particular was built specifically as a shrine to a deceased lineage member, so the northern placement of the shrine is further reference to the important role that this individual played in death as well as in life.

Similar to the royal family in the Acropolis, the courtiers at Las Palmitas built their residential architecture in a separate location from the ritual structure of the group. The main residence at Las Palmitas was a patio group framed by two masonry palaces (M3-6 and M3-7) on its own raised platform separate from the main plaza. The palace patio group would have been the home of the elite lineage at Las Palmitas, where they ate, slept, received visitors, and

performed private household rituals. Access to the palace was open on the south end of the patio group, but the group was physically raised above the public walking area.

The spatial relationship between the palatial residence and the ritual structure at Las Palmitas is similar to the layout of the Acropolis (Figure 28). The two venues are separate, effectively dividing domestic and political activities from religious affairs within the residential group. Similar to Str. L7-11, the pyramid of Las Palmitas is close to the palace, but looks out on a public plaza instead of facing into the elite residence. Like Str. L7-11, the view from Str. M3-1 gazes along the side of the palace, and if the site plan of Las Palmitas was turned 90 degrees clockwise it would mimic the layout of the Acropolis, with a public plaza immediately below the palace and a pyramid in the plaza, just below and east of the palace.

Beyond the palace patio group only a handful of other mounds exist at Las Palmitas that could have supported perishable structures for lower-status dwellings or auxiliary cooking and storage space. Unlike the Acropolis, which is surrounded by many platforms that could have served utilitarian purposes as kitchens and storage structures, there are only a few non-monumental mounds at Las Palmitas that could have provided additional domestic support for the palace group.

The subtle structures surrounding the monumental palace and pyramid-shrine combination facilitated an open layout across Las Palmitas. The boundaries of Las Palmitas were largely unobstructed, providing views out onto the Buenavista Valley, and movement between sections of the complex were unhindered by physical obstacles. From a visual perspective, the negative space around Las Palmitas highlights the palace and pyramid-shrine all the more, and emphasizes their monumentality.

The layout of Las Palmitas indicates that the people who built it were focused on establishing the basic components of a residential group (dwellings and ancestral shrines), and

investment resources into creating those on a monumental scale. These choices indicate a concern for visual impact. To guarantee an impact additional structures were built to an inconspicuous height, and the minimal presence of auxiliary and non-elite domestic structures ensured that the palace and pyramid formed an unobstructed focal point within Las Palmitas. The limited number of vernacular structures at Las Palmitas also suggests that a reduced number of support staff lived at Las Palmitas compared to the Acropolis, and that the number of elites living and visiting at Las Palmitas was consequently lower as well.

Las Palmitas Architecture

The architecture at Las Palmitas is a mix of monumental and vernacular structures. The main architecture was monumental in scale and construction; the large basal platform supporting the palace patio group was shored up with block shaped facing stones along its outer wall, and the palace superstructures were built with similar materials (Figure 29-30). The pyramid at the north end of the main plaza was also built using masonry shaped stones in its main body and superstructure, as was the shrine attached to it. These platforms and buildings were finished off with layer of stucco spread across the facing stones.

The palaces were built in the multi-room lateral arrangement standard for elite residences, and augmented with windows and vaulted ceilings. The temple atop the pyramid was built as a single vaulted chamber, with another example of vaulting in the attached shrine's tomb. The public plaza and palace patio floors at Las Palmitas were paved with thick plaster, with a few instances of repaving (Carter 2014).

In contrast to the monumental buildings at Las Palmitas, the vernacular architecture lacked defined walls or clear facing stones, and appeared to be made of loose fill layers paved

over with plaster (Figure 31) (Carter and Gutiérrez 2011). These mounds would have originally been topped with perishable superstructures that no longer remain.

Las Palmitas Energetics

The total volume of structures at Las Palmitas was 10244.9 m^3 (Table 11). This was naturally dominated by monumental buildings, the pyramid Str. M3-1 (2960 m^3), and the two palace buildings, Structures M3-6 and 7 (1482.3 m^3 and 892.74 m^3 respectively) combined with the raised platform that they sit on, M3-Pl.3 (3787.77 m^3). Together, the monumental structures at Las Palmitas, including the shrine attached to pyramid Str. M3-1, totaled 9166.94 m^3 of construction volume. In contrast, the 11 vernacular buildings made up only 1077.96 m^3 of volume, less than 11% of the total construction volume at Las Palmitas.

Table 11: Volumetric analysis of structures at Las Palmitas

Structure	**Volume (m^3)**
M3-1	2960.19
M3-2	124.05
M3-3	43.94
M3-4	60.07
M3-5	242.74
M3-Pl.3	3787.77
M3-6	1482.30
M3-7	892.74
M3-8	99.13
M3-9	109.01
M3-10	160.25
M3-11	30.10
M3-12	179.75
M3-13	67.26
M3-14	2.95
M3-15	2.65
Total	*10244.90*

A significant amount of labor also went into the terraforming in order to create a level construction plane for Las Palmitas. Terracing at Las Palmitas involved shaping the bedrock by cutting into the peak of the escarpment and covering the ground with a layer of fill to even out natural dips in the limestone (Carter 2014). Additionally, to extend the terrace south a retaining wall of worked stones was built along the southern and eastern slopes of the escarpment, and then filled up with loose rocks and dirt. This work resulted in a total terraced surface area of 13934.18 m^2.

Las Palmitas Interpretation

Overall, the layout of Las Palmitas suggests that a group of high-status individuals built a new residence with the aim of impressing audiences through monumental palaces and a pyramid. The residents chose to invest in visually imposing architecture over functional infrastructure, such as ancillary buildings for housing servants, kitchens, food storage, etc. Between the palace and pyramid, the courtiers at Las Palmitas were primarily concerned with signaling status through monumentality, and through the performances that these theatrical venues hosted.

To this end the residents of Las Palmitas built a complex that mimicked the layout of the Acropolis, separating large-scale religious activities from residential life, and arranging the former to the east of the latter. These nods to the spatial planning of the Acropolis suggest that the people at Las Palmitas wanted to emulate the structure of the royal court at El Zotz. The separation of domestic and political activities from public ritual at Las Palmitas follows the rules of decorum established in the Pa'ka'n royal palace, signaling that the courtiers at Las Palmitas were well acquainted with these principles.

The built environment at Las Palmitas is indicative of an influential family that wanted to create its own version of an elite palatial complex. It is possible that Las Palmitas was built by the royal family of El Zotz as a safe house in response to the rising military tension in the Peten in the latter half of the Late Classic period (Martin and Grube 2008). Although both compounds were occupied at the same time, it is not unheard of for royal courts to utilize multiple palaces at once, particularly for defense purposes. Dos Pilas similarly used Aguateca as a second capital city in the Late Classic, in part due to its naturally fortified location (Inomata 1997). Moreover, evidence at Bejucal indicates that the Pa'ka'n court used other residences for specific purposes while still occupying the Acropolis as their main residence (Garrison et al. 2015).

Alternatively, Las Palmitas could have been constructed for a sub-royal lineage that may have been inspired by military events or by aspirations of political independence to separate themselves from the royal palace. In this scenario Las Palmitas was a necessarily pared down version of the Acropolis, as the family living there did not possess the same level of resources or labor as the dynastic lineage at El Zotz. Regardless of any limitations, the people who commissioned the construction of Las Palmitas devoted as much human power and materials as possible to create a visual impact similar in a superficial sense to the impact of the Acropolis.

La Luna

La Luna Location

La Luna was built approximately 2 km east of the core of El Zotz, at the foot of the Buenavista Escarpment (Figure 16). Settlements along the valley floor in the Classic period were not densely packed but rather formed a light, continuous conurban landscape where concentrations of monumental construction were separated by 2 km of space on average (Garrison et al. 2019). Although the distance between El Zotz and La Luna might suggest a

certain level of independence between the two populations, 2 km in reality was not a great distance between communities on this landscape, and El Zotz was both the closest royal center and the densest settlement in the valley at the time La Luna was built. Thus the people at La Luna most likely associated closely with El Zotz.

La Luna was built just 500 m from a large bat cave in the Buenavista Escarpment. Caves in general were believed by the Maya to be places where humans could enter into the dark, watery underworld, which is why caves are the site of highly esoteric and exclusive rites (Stone 1995). Notably, during the Early Classic the summer solstice sun would have risen over the bat cave when viewed from El Diablo, which could help explain local interest in this geological feature (Houston et al. 2015). The eastern location of the bat cave relative to El Zotz strengthens associations between the cave and the supernatural. The sightline that links the tomb of the Pa'ka'n dynastic founder to the bat cave is 71° (Figure 20). This orientation was reproduced on the ground when locals constructed the Early Classic sacbe of El Zotz at a 71° angle, connecting the royal Accession Platform of the site to an *aguada*, the main local water source for the population at El Zotz (Figure 20). In both of these cases architecture related to kingship at El Zotz was constructed in relation to a natural landscape feature (representing a watery portal), but the orientation of that relationship was first determined by the bat cave in the escarpment (Houston et al. 2015). Other circumstantial evidence from the Early Classic suggested that the people at El Zotz utilized sacred caves nearby. Two vessels from the royal tomb of the founder of El Zotz were covered in calcifications similar to those found on vessels that the Postclassic/colonial Maya placed in caves to collect "pure" or "virgin" water (Newman et al. 2015; Thompson 1975:xv-xxii). The bat cave in the Buenavista Escarpment may have been an example of a similar Classic period ritual site, but it cannot be investigated due to the large bat colony that occupies it (Houston et al. 2015).

It is clear that the bat cave was cosmologically significant to the dynasty at El Zotz, which is why the cave is referenced in the site's alignment. The choice by the family at La Luna to settle in close proximity to the cave may have been a similar acknowledgement of the cave's supernatural potency, and perhaps an attempt to associate with or harness a source of dynastic power.

La Luna Layout

La Luna is a settlement across 14,380 m^2 with 20 mounds from 0.3 – 1.6 m tall (Figure 19). The layout of La Luna is partially dictated by the slope on which it was built; the group is laid out in three eastward ascending terraces, but with most structures on the bottom terrace which is naturally broader. The main patio group at La Luna sits on this bottom tier, which is associated with domestic refuse. Beyond the main patio group are a number of solitary structures, some of which may have functioned as ancillary facilities. The middle terrace is defined by one mound and three low platforms that skirt the edges of the terrace, while the upper tier supports two small structures which, based on size and shape, were most likely auxiliary (Haviland 1968; 1985). This organic, informal arrangement of structures is in stark contrast with building layouts in the core of El Zotz, and echoes the amorphous nature of Plaza Plan 5 at Tikal (see Haviland 1968: 109-110).

Within the main patio group, the north end of the terrace is bounded by the primary ritual structure of La Luna (Str. T1-11), which entombs at least three ritual deposits and one burial. On the west and south edges of the patio are two domestic platforms containing multiple burials. Large deposits of household refuse behind structures T1-3 and T1-10 further confirm that residential life at La Luna was concentrated in this main patio group. Given the remains of both

ritual and household activities in this one patio, it seems that sacred and mundane practices were performed together around this single space.

La Luna Architecture

Most of the architecture at La Luna was vernacular, except for the structures around the main patio group. These mounds were built using “improved” materials (shaped blocks, blocks dressed with stucco), although their footprints did not differ significantly from basic house mounds (Figure 33) (Abrams 1984). Late Classic basal platforms in the main patio group were walled with large rectangular facing stones, occasionally coated with stucco. Platform floors were mostly thin, with only a few patches of plaster remaining, and covered with perishable superstructures. The original platforms built around the main patio during the Late Classic were the sturdiest and most labor intensive at La Luna, while later additions were shaped by rough, unworked stones stacked in low lines (Figure 34). The patio itself was never paved, but on a few occasions the ground immediately adjacent to structures was plastered.

Beyond the main patio group structures were less well-defined, with only traces of rocks that may have formed loose retaining walls (Figure 35). Other mounds lacked masonry bases entirely and were most likely built up over layers of rubble and gravel that were roughly plastered with thin stucco for flooring. Platforms made with these construction techniques generally required less labor to build.

Structure T1-11 is the most distinct edifice at La Luna. It is composed of a single platform supporting two separate superstructures (one on each end) with an open space between them. This architectural form is completely distinct from other buildings at La Luna, another attribute consistent with ritual structures, but it is also a unique form for El Zotz entirely.

While this is interesting to note, the data do not permit an explanation for the unusual form of Str. T1-11, other than that the religious function of Str. T1-11 likely influenced its configuration.

La Luna Energetics

The total volume of buildings at La Luna was 1633.19 m^3 (Table 12). The largest structure was a mound located at the base of La Luna, Str. T2-3 (468.65 m^3), followed by structures situated around the group's main patio. Structure T1-11, the primary ritual building of La Luna, was 332.08 m^3 in total, followed by Str. T1-7 (177.97 m^3), which bounds the south end of the patio, and Str. T1-3 (100.75 m^3), which is associated with a large domestic midden off the south slope of the main patio. In total the construction of the central residence at La Luna (the main patio group) made up almost half (46.10%) of the total building volume at La Luna. The remaining architectural volume at La Luna was comprised mostly of individual mounds like Str. T2-3, some of which most likely served as ancillary buildings for cooking and storage.

The people at La Luna did significant work to shape their landscape before building permanent residences. A surface area of 13,000 m^2 was simultaneously cut down and filled up to create a level plane for the construction of La Luna. While not quite as large of a surface area as Las Palmitas, La Luna was a much larger area to terraform than the typical commoner household group. La Luna was one of the largest residential groups immediately surrounding El Zotz, so carving a level surface area of that size into the escarpment slope would have been a significant undertaking for its occupants.

Table 12: Volumetric analysis of structures at La Luna

Structure	Volume (m^3)
T1-1	7.73
T1-10	94.22
T1-11	332.08
T1-2	12.14
T1-3	100.75
T1-4	44.43
T1-5	12.12
T1-6	18.48
T1-7	177.97
T1-8	17.36
T1-9	68.49
T2-1	33.16
T2-2	26.17
T2-3	468.65
U1-2	44.94
U1-3	13.89
U1-4	98.63
U1-5	13.24
U1-6	24.01
U1-7	24.73
Total	*1633.19*

La Luna Interpretation

La Luna is a mid-sized residential group with a layout that conforms to its natural landscape. The complex was built on a rising slope that resulted in an improvised arrangement of structures, including isolated platforms and awkwardly articulated pairs. Most of the architecture at La Luna was vernacular in nature, and all of the superstructures across the group were perishable. The occupants of La Luna poured most of their energy into constructing sizeable house mounds around the bottom terrace of La Luna. Of these larger structures, the residents paid particular attention to the construction of buildings in the main patio group. It is in this main patio group where the majority of deposits (both domestic and religious) were buried.

Structure T1-11 in particular around the main patio appears to have been the center of religious activity, given its unique architecture and its various associated ritual deposits. In this sense the layout at La Luna is unique compared to the groups studied here because it combines the focal points of residential and ritual life all around one patio.

La Luna was built near a large bat cave in the valley escarpment that was significant to the dynasty at El Zotz. The family at La Luna undertook a large scale effort to terrace into the hillside near this cave rather than settle around El Zotz. This choice suggests that the bat cave generated a significant pull over the residents of La Luna, and that they were particularly connected to the ideological significance of the bat cave. Moreover, the fact that previous palaces at El Zotz were aligned towards the bat cave suggests that the cave may have become associated with the Pa'ka'n court over time, and turned into a place of dynastic as well as ritual significance. In this sense, the lineage at La Luna sought not just to affiliate with the spiritual power of the bat cave, but also with its political authority.

Because the location of La Luna is separated from El Zotz but aligned with early local symbols of supernatural and royal power, it is possible that the family at La Luna was another political player in the area that existed in tandem with the royal court at El Zotz. La Luna required a larger workforce to construct than the average, independent, non-elite residential group around El Zotz, however the lack of elaborate or monumental architecture indicates that whatever additional labor that was enlisted did not specialize in construction. Thus the family at La Luna had some influence over outside lineages, but not over the specialists that worked for the royal family. This, combined with the family's connection to the same sacred geography as royal families, strongly implies a secondary elite status.

Comparison of Groups

When comparing the built environments of Late and Terminal Classic residences around El Zotz, a clear hierarchy emerges that encompasses the size of structures, quality of architecture, and quantifiable labor investment (Table 13). The Acropolis at El Zotz is at the top of all of these categories, with the tallest structures, the most examples of monumental architecture, and the highest total construction volume. All of that is to say that the people of El Zotz put the most effort into constructing their site's royal palace, more so than any other residence.

Table 13: Size of Late and Terminal Classic Residential Groups around EL Zotz

	I10 Group	**Acropolis**	**Northwest Courtyard**	**Las Palmitas**	**La Luna**
Total Area of Complex (m^2)	869	98021	2073	13934	14380
Total Construction Volume (m^3)	107	17870	354	10245	1633
Total Area Terraced (m^2)	869	--	--	13934	13000

After the Acropolis, Las Palmitas has the only other examples of monumental architecture in a residential group from this time period at El Zotz; the pyramid at Las Palmitas was the second tallest structure of the residential groups in this study, and the builders of Las Palmitas were highly skilled in constructing monumental palaces. Symbolic and practical similarities between the layout of Las Palmitas and the Acropolis also hint that the family at Las Palmitas was affiliated with the royal court in the Acropolis, and used the Acropolis as a spatial model. This parallel combined with the power required to command a massive workforce suggests that the inhabitants of Las Palmitas were either of royal or sub-royal status. However not all of the structures at Las Palmitas were monumental, and the total residential space for both regency and support staff was significantly smaller than that in the core of El Zotz. Instead,

it seems that while politically powerful, the family at Las Palmitas had a much smaller range of resources available to them.

Not all aristocrats could harness the necessary labor forces to construct monumental buildings. Some lineage groups did not possess enough power or influence over people outside of their own extended family to command major projects like the construction of Str. L7-11 or the palace at Las Palmitas. However, lineage groups without monumental homes are not necessarily low in status, and their residences may have still required some outside assistance to construct. In the cases of the La Luna and the Northwest Courtyard, I consider other aspects of the built environments that may be physical manifestations of privilege or power. For these cases it was also helpful to compare each group to a self-sufficient, non-elite residence as a control case for the standard architecture and labor investment for a commoner family.

La Luna was constructed over an extensive area, the largest of any of the groups studied here, with an energetic expenditure more than four times that of the Northwest Courtyard, and 15 times that of Group I10 (Table 13). Although the family at La Luna did not build elaborate structures, they still put significant effort into terracing the valley escarpment. This terracing effort was almost as vast as the terraforming undertaken to create Las Palmitas, and significantly greater (almost 15 times) than a non-elite residential group. The architecture at La Luna denotes a family of modest local influence, but who did not possess as much power as the people at Las Palmitas or in the Acropolis.

La Luna was also built in close proximity to a supernaturally charged cave feature in the landscape. Many aspects of the Pa'ka'n palaces and site core were constructed around the location of this specific cave, so it is plausible to suggest that the family at La Luna selected the location for their home based on the same feature. Part of the allure of this cave was probably because such features were considered by the Maya to be liminal spaces that accessed

otherworldly forces. However, over time the cave may have taken on additional meaning specific to its relationship to El Zotz. The relationship between a nearby water source at El Zotz and the dynastic Accession Platform from the early Late Classic recaptured the relationship between the bat cave and the Early Classic dynastic tomb of El Zotz. In both cases a space of kingship was constructed in a 71° alignment with a portal to the watery underworld.

The cave may have also held significance for the Pa'ka'n royal court since its founding. The residents of La Luna may have attempted to connect themselves with the bat cave not just for its supernatural force, but also for the power that it afforded the founding Pa'ka'n dynasty. By constructing their residences around the presence of the bat cave, the family at La Luna may have mimicked earlier royal residences at El Zotz, and tied themselves to a fundamental source of political supremacy. Choosing their place of residence based on proximity to the bat cave over proximity to El Zotz was a unique strategy by the family at La Luna to gain a political edge.

At present La Luna appears to be the clearest contender for a secondary elite residential group of the complexes analyzed in this study. The group lacks any indicators of a royal presence, but exhibits more social capital than the average non-elite group and a strong grasp on sacred geography and political symbols.

In contrast to La Luna, the Northwest Courtyard was built with almost the opposite tactic in mind. The people living in the Northwest Courtyard, although they did not commission architecturally complex or labor-intensive dwellings, did build their homes next to the Acropolis in the core of El Zotz. Such close proximity to the royal court, combined with a stairway linking the Acropolis and the Northwest Courtyard, demonstrates that the people in the Northwest Courtyard held a close relationship to the residents at the Acropolis. However, whether this relationship was based on membership to an exclusive circle of powerful lineages, or based on an unequal professional relationship is to be determined.

The differences in the built environment of each residential complex convey the different strategies that each lineage group at El Zotz used to promote their own social standing within the Late Classic aristocracy. Some families used monumental building projects or transformed the landscape extensively to express the scope of the labor force that they controlled, while others elevated their standing by associating with sources of power. The people at Las Palmitas used monumental building and terraforming projects to express the scope of the labor force that they controlled. Additionally, they reproduced aspects of the Acropolis in their own compound as a reference to symbols of dynastic authority. The lineage at La Luna also sought power through symbolic associations, but by linking itself to a geographic feature that housed cosmological forces, and that supported the broader dynasty of El Zotz throughout time. If the courtiers in the Northwest Courtyard retained any political power they did so through their close relationship with the residents of the royal palace. Otherwise, the Northwest Courtyard is the most likely candidate for a non-elite courtier residence.

While an analysis of architecture and setting is a good starting point for identifying possible secondary elite compounds, household practices can help clarify which of these groups were actually occupied by sub-royal families. In the next chapter, I use the material indicators of behavior at each lineage group to separate out the nobility from the royalty and the non-elite royal staff.

6. HOUSEHOLD MATERIALS

Ancient Maya Home Life

The day-to-day life of the extended family unit in a typical Classic Maya residential group was comprised of a range of activities that were primarily subsistence focused. Everyday behaviors usually revolved around procuring food and other necessities like clothing, shelter, and basic tools. Acquiring food involved agriculture and hunting, while clothing and tools were frequently manufactured at home, after which point they could be used to construct and furnish permanent lodgings.

Archaeologists analyze the remnants of daily life in order to reconstruct the quotidian practices of the Classic Maya. A household usually owned a collection of functional implements made of non-perishable materials that survive in the archaeological record. Objects employed to perform daily tasks included grinding stones for processing corn and other crops, pots for cooking and storing food, spindle whorls for weaving, stone tools for chopping, scraping, slicing, and hammering, and bone tools for tasks requiring finer dexterity such as piercing, incising, and crafting. Routine activities also left behind physical traces: eating left behind animal bones and shells, tool production generated debitage, and implements that wore out or broke during use were discarded for archaeologists to recover centuries later. All of these materials combine to form a complete household assemblage, which can then be studied to understand the daily practices of the Classic Maya.

Having examined the built landscape and inhabited spaces of three potential sub-royal residences at El Zotz (the Northwest Courtyard, Las Palmitas, La Luna), I will next investigate the behaviors of each lineage group to define which groups were the politically influential, secondary elites in the court of El Zotz. Moreover, the behaviors identified at each compound

will illustrate the range of practices that non-royal elites adopted to advance their personal careers in the Pa'ka'n government.

I studied the practices of the Northwest Courtyard, Las Palmitas, and La Luna using the household materials from each residential complex, and compared them to the practices of people inside and outside the court, at different ends of the sociopolitical spectrum. The everyday practices of each group provide a window into the habitus of the different families associated with the court of El Zotz. As a product of social structures, habitus reflects the social position of each family, so the behaviors in each residential group are a natural point of study to determine which lineages were part of the exclusive nobility of El Zotz.

First I evaluate the production practices at each household group, considering the efforts that each family put into making basic foodstuffs and essential items for the household. Next, I will compare the level of production with the consumption practices at each group. For the most part consumption at these groups is represented in the archaeological record through dining, an act that is signaled through both pottery and animal remains.

The aesthetic properties of everyday objects were also part of the habitus that developed in each lineage group. The residents of each complex made stylistic choices when they created or acquired commodities like pottery. These aesthetic preferences were then internalized in the process of using the vessel, and thus became ingrained in the practices and identity of the members of each community. In this sense style can reflect strategic choices and expressions of identity for a social unit, making it an ideal point of analysis for identifying certain political ranks and their strategies for optimizing power within a political institution

Finally, I examine status markers and objects resulting from access to knowledge and goods restricted to Classic Maya courts (Baines and Yoffee's [1998] "high culture"). The

presence and prevalence of objects that fall into this category reflect how integrated each family was into the practices of the court.

Perspectives

Daily Practices: Production and Consumption

Using the artifact data available from the PAEZ investigations I examined various activities performed at the three residences occupied by groups identified as potential secondary elites at El Zotz (the Northwest Courtyard, Las Palmitas, and La Luna). Activities evidenced in the data were divided into two types of behavior: production and consumption. Production activities fulfilled, at the very least, the basic needs of the household, and consumption activities represented the consumption of food and drink. Production activities exhibited in the material record included cooking, stockpiling food surplus, butchering game for food and other uses, and stone tool production, particularly of the early stages. Conversely, evidence of consumption referred to everyday dining and special feasting activities. Proportions of materials representing these activities indicated the frequency of these activities at each group. While these two categories of practice may seem limited, the data available only allowed for certain levels of analysis, and evidence of household production at El Zotz was largely food based. The only “workshop” (loosely applied here) that has thus far been identified at El Zotz was a small lithic production area on the main patio at La Luna, which will be included in the discussion below.

To contextualize the level of production and consumption activities at each courtier compound I compared the frequency of these practices to frequencies at the Acropolis and at Terminal Classic and Postclassic non-elite households around El Zotz. In this comparison the Acropolis functioned as the home of the highest ranked individuals at El Zotz, and the home of

individuals situated at the center of the Pa'ka'n court. In contrast, non-elite homes from the Terminal Classic and Postclassic represented individuals and households in the Buenavista Valley who were not members of the royal court. As previously established, the commoner patio groups surrounding El Zotz in the Terminal Classic represented self-sustaining valley settlers who traditionally lived further away from the site and were not members of the royal court. Similarly, Postclassic household groups represented non-elite families with no relationship to the court of El Zotz, given the dissolution of the divine kingship and courts at this point at the site (Kingsley 2014). Data from the Acropolis established the typical frequency of production and consumption for members of the court occupying the highest level of status. In contrast, data from Terminal Classic and Postclassic commoner patio groups established the frequency of production and consumption activities for a normal subsistence household in the Buenavista Valley that did not receive any personal benefits from the court system, or special assistance otherwise.

Style as Practice

Stylistic choices are indicative of deliberate actions of producers and consumers, meant to convey information (Wobst 1977). On a community level, stylistic trends express and reproduce community identity, and can be used as a strategy both to define an existing social circle, and communicate specific messages about that circle (Wiessner 1983; Deitler and Herbich 1998; Whittlsey 2009). While using objects in daily life community members internalize the style of those objects and come to identify with that style, hence the ability of style to create social boundaries (Stark 1998).

Style can be visible to the naked eye or it can be latent, imbued in the object through the technological choices made during the crafting process (Lemonnier 1986). Style communicates

not just through painted iconography and overt design, but even in the mundane objects of everyday life. At Xunantunich, one of the simplest ceramic types, Mount Maloney, came to define the Xunantunich community. This monochrome type became the centerpiece of pottery in both households and civic ceremonies at Xunantunich (LeCount 2010). Lisa LeCount argues that the daily practices associated with Mount Maloney bowls, such as preparing maize and fetching water, were part of the habitus of the Xunantunich community, so Mount Maloney bowls contributed to the social structures that defined local identity at Xunantunich, and inherently invoked notions of unifying practices to members within the group. This association explains the dominance of Mount Maloney dishes in large ritual deposits at Xunantunich

In this way the design and the use of pottery contributed to community identity, and defined membership to the Xunantunich social unit. I attempt to transfer this concept on a smaller scale to the different lineages groups of the El Zotz court. By exploring the stylistic trends in the ceramics utilized at each residential group, I identify the visual markers associated with the practices of each social unit.

Concepts of aesthetics and style translate easily to the type-variety system, the prevailing method of classifying ancient Maya ceramics, because type-variety is based on decorations apparent to the naked eye (Gifford 1960). Color and superficial manipulations of the clay are captured at the type level, while unique painting styles are differentiated on the variety level. This facilitated an analysis of the stylistic preferences at the Acropolis, the Northwest Courtyard, Las Palmitas, and La Luna. Given that the regular use of objects with certain aesthetic attributes can foster a community identity, it is assumed that the stylistic trends in the pottery at each complex were internalized by residents as they used vessels in their daily lives.

Status Symbols: High Culture and Material Value

In 2001, Takeshi Inomata (2001b) applied Baines and Yoffee's (1998) concept of high culture to Maya craft production to demonstrate the connection between symbolic capital in the form of material goods and the political capital sought by members of the inner elite. High culture is defined by Baines and Yoffee (1998:235) as "the production and consumption of aesthetic items under the control, and for the benefit, of the inner elite of a civilization". The formalization of high culture in the case the Maya was facilitated by courtly control of certain forms of knowledge, including literacy, iconographic meaning, astronomical calculations, and certain rituals, all of which were taught exclusively to the priesthood and nobility (Inomata 2001b). Maya courts also controlled the production of high culture through a system of attached manufacturing, where skilled artisans worked for palace workshops (Costin 1991; Inomata and Stiver 1998; Reents-Budet et al. 2000; Rossi et al. 2015). In an additional layer of exclusion, the skilled artisans that created these objects were typically members of the inner elite themselves, which kept esoteric and artistic knowledge tightly contained inside the court (Webster 1989; Inomata et al. 2002; Rossi et al. 2015). This system assured that the inner elite circle retained command over the symbolic resources that they used to legitimize their own station and to define membership into the inner circle.

This is not to say that high culture items were only owned by the top Maya elite. Objects of this nature could be distributed outside of the court in order to build bonds with external non-elite lineage heads (LeCount 1999). Certain objects were more commonly gifted than others, ceramics being one of them. For this reason, the quantity of more common high-culture objects (i.e. ceramics) is a better indicator of the owner's status rather than simply presence. This observation has been backed by numerous artifact distribution studies at Classic Lowland sites (Hendon 1991; Palka 1995; Reed and Zeleznik 2015).

High culture in Mesoamerica is typically the result of a significant labor investment into the production of material culture by specialists. This dovetails with concepts of value as determined by labor, and offers a less abstract method for identifying high culture. Just as with architecture, portable goods that required extra energy expenditure to manufacture implicitly held greater value in ancient Maya society. Labor investment was formally put forward as the basis of value by John Locke (1690) and modified over time by Adam Smith (1776), David Ricardo (1817), and Karl Marx (1906) among others (Papadopoulos and Urton 2012). Following these theories, objects of the same category, like ceramics, could be differentiated by their relative value according to the amount of work required to craft each object. The most labor-intensive items within an object class are often examples of high culture, and their prevalence in a household assemblage is an indicator of elite membership.

Suppositions tying greater labor investment to higher social value have been tested in Mesoamerica using quantitative methods such as the Production Step Index (Feinman et al. 1981; Upham et al. 1981; Sanders and Santley 1983; Czapiewska 2018). These studies confirmed that the energy cost of creating a ceramic vessel was roughly inversely proportional to how common the type of vessel was, and that energy-intensive objects were found in the highest quantities and frequencies around socially and politically powerful households and communities. This concept of labor input as a measure of value can even extend beyond the process of production into distribution as well, which will be addressed in chapter eight.

The frequency of valuable serving wares and the total inventory of serving dishes have proved to be strong predictors of household wealth in a variety of ethnographic and historical studies, even within societies where labor-intensive wares were not exclusive to the upper-class (see M.E. Smith 1987 for a synthesis on the material indicators of wealth in archaeological assemblages) (Teller 1968; Stone et al. 1973; Otto 1984; Miller 1980). A correlation between

prestige vessel frequency and other forms of material wealth has also been identified at Classic Maya settlements (see Chapter 2) (Haviland and Moholy-Nagy 1992; Hendon 1993; Palka 1995; Reed and Zeleznik 2015). This correlation allows me to draw conclusions about the overall status of the lineage groups at the Acropolis, the Northwest Courtyard, Las Palmitas, and La Luna based on the ceramics they owned.

Methods

Ceramic Classification

Ceramics made up the majority of the materials excavated at the Acropolis, the Northwest Courtyard, Las Palmitas, and La Luna. I sorted ceramics by the type-variety system, a standard method of Maya pottery classification based on surface decoration (slip, paint, incisions, impressions, etc.) (Gifford 1960). Under this system ceramics are categorized first by a group, which most often is defined by the color of the vessel's primary slip, or if unslipped then the vessel's primary surface treatment. Within these general groups are types, which are defined by variations of the group's slip, or by manipulations of the clay's surface resulting in additional sculpted decorative elements like impressions or incisions. Each type contains one or more varieties reflecting the usual and unusual subsets of each type. These include subsets stemming from individual workshops, so the variety level is often used to refer to unique painting styles originating from the palace workshops at different sites (Gifford 1960; Reents-Budet et al. 2000). Because the type-variety system is largely based on visual attributes, the classification system is well suited to quantitative studies of style and aesthetic traditions.

The type-variety system also enables distinctions among time periods, regions, and even specific sites. Ceramic classification is primarily used to date the contexts from which sherds are excavated, so the names of ceramic groups change between time periods in order to

facilitate chronological studies. Statistical descriptions of ceramics are typically done by sherd weight as opposed to count, given that fragmentation can heavily impact sherd counts (Orton 1993).

The type-variety data used in this study was the product of multiple ceramicists. Ceramics from the Acropolis and Northwest Courtyard were classified by Ewa Czapiewska. Ceramics from Las Palmitas were analyzed by Nicholas Carter, and ceramics from La Luna were analyzed by the author. Comparative materials from Terminal Classic households were sorted by Alyce de Carteret and Joel Lopez, and those from Postclassic households were handled by Melanie Kingsley. Not all of the ceramics from the Acropolis and the Northwest Courtyard were analyzed, and unfortunately the total quantity or weight of excavated ceramics from these locations is unknown. One hundred percent of the ceramics excavated from Las Palmitas and La Luna were analyzed and are represented in the statistics below, as well as 100% of the ceramics from Terminal Classic and Postclassic households.

Ceramic Function

Because pottery is a ubiquitous aspect of daily life (certainly for the Maya), it is often used as a proxy for identifying the practices of a community. In the case of the Maya, the different activities performed by households utilized pottery with different surface decoration, so functional categories of pottery can be mapped with type-variety analysis. Moreover, the different ceramic groups tend to have pastes that work well for their hypothesized purpose.

It is possible to deduce the range of daily activities carried out at the elite residences around El Zotz by distinguishing between three different functional categories of pottery: (1) unslipped vessels (utilitarian jars and large pots) used for storage or cooking (Figure 36), (2) monochrome vessels (slipped jars, bowls, plates, and vases) used for serving food and liquids

on a daily basis (Figure 37), and (3) polychrome vessels (slipped and painted bowls, plates and vases) as well as fine paste vessels (slipped bowls and vases, sometimes carved and/or incised, made of extremely fine and well-sorted temper) used for serving food on special occasions (Figure 38). The third category may also be referred to as ceremonial or prestige ceramics. Texts on prestige vessels explicitly state the foods that these dishes were used to serve, while the scenes painted on these objects show that they were used for political and ritual ceremonies (Houston et al. 1989; Reents-Budet 1994).

The functional categories of Maya ceramics are well suited to a study of production and consumption practices. Unslipped vessels used for cooking and food storage represent the daily production of meals and food surplus, while serving vessels were used to consume everyday meals as well as ceremonial feasts (Sheets 1992; Houston et al. 1989). By establishing the function of each vessel in a household's ceramic assemblage, it is possible to evaluate the different daily practices of the courtly lineages that lived in each residential group.

Ceramic Value

Functional categories of pottery also correlate to the amount of labor put into making each vessel. Unslipped vessels required the least amount of effort to create because potters did not slip or polish them, and applied only the simplest surface decorations, if any. Moreover, potters tempered storage jars and cooking pots with unsorted, large-grain inclusions that could easily be made by crushing up local limestone. Monochrome dishes involved the additional step of applying slips, as well as other occasional surface treatments, and potters typically sorted out the largest and most angular inclusions when adding tempers. Prestige ceramics (polychrome and fine paste vessels in the type-variety system) required intensive labor to produce. Polychrome dishes were tempered with imported volcanic ash, coated with an under-slip and

multiple layers of base slip, and painted with abstract and figural designs before being fired at high temperatures. Fine paste vessels were made with a similar attention to detail, tempered with well-sorted, miniscule grains of ash and carved and incised with comparable imagery. Because these vessels require so much additional work to produce they are termed “prestige” goods and are regularly used by archaeologists as an indicator for social standing and wealth (LeCount 1999; Callaghan 2014).

Statistics and Diversity

The three basic measures for quantifying and comparing artifact assemblages are absolute counts, proportional frequencies, and diversity (Canon 1983). The study of ceramics below examines two of these measures: proportional frequencies and diversity. The main drawback of comparing the assemblages from the Northwest Courtyard, Las Palmitas, and La Luna was that their sample sizes varied significantly, but these were the data available. For this reason absolute counts were provided, but not used as a comparative metric for interpretations (Canon 1983). Because the majority of the artifact assemblages at each residential compound were composed of ceramics, statistical analyses focused on the pottery from each group. Analyses included the ratio of different decorative attributes in the overall pottery assemblage at each residential group, as well as the diversity of ways that specific attributes manifested.

Diversity metrics were originally adopted from the field of ecology, where diversity is used to calculate species richness within an environment (Bobrowsky and Ball 1989). A slew of equations have been generated within the field of ecology that weigh the number of individuals, species, rare species, and total area of a sample differently to solve for species richness. Diversity calculations have since been applied to archaeological materials in a range of studies

dealing with fauna as well as ceramics and entire artifact assemblages (Schiffer 1973; Yellen 1977; Dickenson 1980; Thomas 1983; Leonard and Jones 1989; Callaghan 2008).

Diversity here refers to the richness of a ceramic assemblage, in other words the number of variations on a single decorative attribute that appear in a collection of pottery (Bobrowsky and Ball 1989). In the case of El Zotz, the diversity of the ceramic assemblage at each complex speaks to the aesthetic preferences of each lineage group and the range of craftspeople from which residents acquired their pottery. Lower richness signals uniformity in production practices and stylistic choices within a community, while greater richness of ceramic variation is suggestive of more innovative production and a less standardized aesthetic.

To measure diversity (d) Margalef's Richness Index was used (Margalef 1958). Margalef's Index employs the following formula:

$$d = (S-1)/\ln(N)$$

where S equals the count of different species observed and N is the total number of individuals sampled (Magurran 2004; Callaghan 2008). The advantage of Margalef's metric is that it compensates for uneven sample sizes by using a natural log, which characterizes the distribution of most phenomena, so the effect of sample sizes on the measure of richness is reduced (May 1981). It is important to understand that the results from Margalef's metric are best understood based on their relationship to other index results that measure the same attribute in different assemblages.

Other Material Analyses

Beyond ceramics, material specialists also analyzed lithic, shell, figurine, and faunal remains from El Zotz. Of these categories, shell and figurine fragments appeared in small

quantities, while the count of bones and stone tools provided a stronger basis for statistical comparison. Only lithic and faunal remains excavated prior to 2017 could be analyzed.

Faunal remains from the Acropolis, the Northwest Courtyard, and Las Palmitas were analyzed by Sarah Newman at the Museum of Comparative Zoology and the Zooarchaeology Laboratory of the Peabody Museum at Harvard. Taxonomic classification was aided by the comparative collections housed at Harvard (Newman 2015). Unfortunately the fauna from La Luna could not be analyzed due to the Covid-19 pandemic, so that data is absent.

Zachary Hruby analyzed lithic materials from 2008-2011, which included artifacts from the Acropolis, Northwest Courtyard, and Las Palmitas. Stone tools and debitage were classified by raw material, size, weight, and technology. Lithic analysis from 2013 onward was performed by Joshua Kwoka, who was able to do an initial assessment of the materials from La Luna in 2021.

Household Practices

Production

The Acropolis yielded the lowest percentage of cooking and storage vessel sherd weights of any complex (52.82%), notably lower than commoner households at the end of the Classic period (62.43%) (Table 14-15). Similarly, the total weight of unslipped ceramics at La Luna (58.81%), although proportionally larger than the Acropolis, was still lower than the weight of unslipped sherds at average residences. In contrast, the proportion of unslipped sherd weights at the Northwest Courtyard (65.56%) and Las Palmitas (61.71%) was much closer to the commoner household ratio. Cooking and storage wares are indicative of domestic food practices, mainly the amount of effort that residents put into cooking meals and building up a food surplus within their complex.

Table 14: Total weight (g) of ceramics by functional category

	Acropolis	Northwest Courtyard	Las Palmitas	La Luna	Terminal Classic Non-elites
Unslipped	155093	78260	92893	169749	124531
Monochrome	118201	38984	53331	88143	69269
Prestige	20305	2132	4317	30754	5674
Total	293600	119376	150541	288645	199474

Table 15: Percentage of weight (g) of ceramics by functional category

	Acropolis	Northwest Courtyard	Las Palmitas	La Luna	Terminal Classic Non-elites
Unslipped	52.82%	65.56%	61.71%	58.81%	62.43%
Monochrome	40.26%	32.66%	35.43%	30.54%	34.73%
Prestige	6.92%	1.79%	2.87%	10.65%	2.84%
Total	100%	100%	100%	100%	100%

Parallel to evidence of cooking are the remains of actual foods. Analyses of human and faunal remains found that the diet of the Lowland Classic Maya was composed of crops such as maize and squash, marine and freshwater fish and mollusks, and a mixture of forest animals (White and Schwarcz 1989). Certain animals were particularly popular in ancient Maya cuisine, including deer, rabbits, peccaries, and dogs, and their bones are typically the result of food preparation and consumption. The quantity and distribution of different deer elements at Maya sites reflect animal processing practices. Deer, as preferred fare, were butchered to separate the desirable, meaty cuts like the shoulders and haunches from the thin and unappetizing portions, such as the head, lower legs, torso, and tail (Sharpe and Emery 2015). Keeping in mind the “schlepp effect” and studies of Maya animal processing, the least useful parts of game are generally removed first (Turner 1989; Emery 1997). In most cases (for the Maya and cross-culturally) this meant removing the feet, followed by the other distal and axial elements of the animal (Zeder 1991; Miller and Burger 1995; Emery 1997; Arbuckle 2012; Sharpe and Emery

2015). The most desirable parts of the animal, the upper limbs, were usually brought home and eaten in Maya households (Emery 1997). Cranial elements may have served a ritual purpose rather than a purely subsistence one, so these are considered separately in Chapter 7 of this dissertation (Montero-Lopez 2009). Given the principles above, the lower limbs, torso, and tail of deer indicate butchering practices in households at El Zotz, while the upper limbs speak to cooking and feasting activities. In non-elite households from other time periods such as the Postclassic, deer remains (not including cranial elements) were dominated slightly by the boney lower legs, back, and tail (57.53%), while the remaining bones were composed of the meaty upper legs (42.77%) (Table 16). This breakdown represents the standard breakdown of animal remains that result from processing whole animals near the household. Likewise, bones from undesirable cuts of meat made up more than half of the deer remains at the Northwest Courtyard (61.86%) and Las Palmitas (61.54%). However, bones from butchering appeared in a much smaller frequency at the Acropolis (37.13%). Instead, the meatier upper legs represented the majority of the deer bones at the Acropolis (62.86%). At other sites in the southern Lowlands local elite households typically contained more deer haunches and shoulders than distal and axial elements, indicating that elite families did not process all of their food themselves, and instead obtained pre-processed cuts of deer meat from outside sources (Emery 1997; Sharpe and Emery 2015). Excavations at the Acropolis also revealed a low percentage of faunal remains in the overall artifact assemblage from each unit at the group (not including artifacts from units with missing data) (0.10%). The proportion of animal bones from the overall artifact assemblage at the Acropolis was the lowest of any residential group. This comparatively low ratio is consistent with a household that only received the final products of animals, perhaps in cooked form, rather than whole animals, resulting in fewer remains.

Table 16: Percentage of the total count of each faunal element for deer and dogs

	Acropolis	Northwest Courtyard	Las Palmitas	Postclassic Non-elites
Upper Leg	62.86%	38.14%	38.46%	42.47%
Lower Legs, Torso, Tail	37.14%	61.86%	61.54%	57.53%
Total	100.00%	100.00%	100.00%	100.00%

Table 17: Total weight (g) of different materials in lots where all materials were recorded

	Acropolis	Northwest Courtyard	Las Palmitas	La Luna	Postclassic Non-elites
Ceramic	172059	179491	165404	386951	252284
Fauna	172	1288	825	1564	7301
Lithics	3531	7423	12568	37230	38019
Obsidian	74	109	53	371	569
Total	**175835**	**188312**	**178850**	**426116**	**298173**

Table 18: Percentage of weight (g) of different materials in lots where all materials were recorded

	Acropolis	Northwest Courtyard	Las Palmitas	La Luna	Postclassic Non-elites
Ceramic	97.85%	95.32%	92.48%	90.81%	84.61%
Fauna	0.10%	0.68%	0.46%	0.37%	2.45%
Lithics	2.01%	3.94%	7.03%	8.74%	12.75%
Obsidian	0.04%	0.06%	0.03%	0.09%	0.19%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Table 19: Percent of Lithic materials by weight (g)

	Acropolis	Northwest Courtyard	Las Palmitas	Postclassic Households
Nodule	16.49%	29.25%	28.49%	25.50%
Flake Core	4.79%	17.43%	13.27%	12.02%
Production Flakes	12.54%	4.32%	9.76%	19.95%
Bifacial Thinning Flake	32.47%	12.43%	20.32%	14.11%
Final Products	33.70%	36.58%	28.16%	28.41%
Total	100.00%	100.00%	100.00%	100.00%

The Acropolis also yielded the lowest proportion of lithics in lots where all materials were recorded (2.01%), whereas lots from the neighboring Northwest Courtyard produced 3.93% lithics. Complexes outside the site core recalled a noticeably higher ratio of lithics in lots where all materials were recorded; the lithics at Las Palmitas made up 7.03% of the sampled assemblage, and lithics at La Luna were the most prominent of any complex, at 8.97% (Table 17-18). Within the lithic assemblages at each complex evidence of the beginning stages of production was more common outside of the Acropolis. Chert nodules occurred frequently at Northwest Courtyard (29%) and Las Palmitas (28.49%), in proportions similar to commoner Postclassic households (25.43%) (Table 19). In contrast, nodules made up only 15.85% of chert artifacts from the Acropolis. Complementarily, bifacial thinning flakes, the result of refining and retouching stone tools, were much more frequent at the Acropolis (31.21%) than at the Northwest Courtyard (12.32%) and non-elite households (14.06%). These thinning flakes are attributed in part to the maintenance of small bifaces made of a high-quality brown chert, which were found almost exclusively in the Acropolis. Lithicist Zachary Hruby hypothesized that the small bifaces were imported as final products, which would explain the absence of any early-stage production debitage of this specific chert at El Zotz, and the limited distribution of the small bifaces to the highest profile residence at El Zotz (Hruby 2018).

Although ceramics are the most common material uncovered at El Zotz, no pottery production loci have ever been identified at the site through either intensive excavations or regional survey and test pitting. Studies of the spatial distribution of paste and other stylistic properties within common types of Classic Maya pottery demonstrate that everyday forms of pottery were manufactured at many locations within small geographic zones (Foias and Bishop 2007 in pottery economics; Fry 2013). These results indicate that utilitarian wares and common serving vessels were most likely manufactured on the household level. In contrast, polychrome

items used for ceremonies were created by artisans in specialized workshops attached to palaces (Reents-Budet et al. 2000; Becker 2003; Reents-Budet et al. 2010; Halperin and Foias 2012). Despite current knowledge of production patterns, very few kilns have ever been found in the Maya region, and physical traces of ceramic production have evaded archaeologists at El Zotz (López Varela et al. 2001; Bishop and Rosales 2019). Regardless, it is assumed that everyday domestic wares at the Northwest Courtyard, Las Palmitas, and La Luna were produced by households in these compounds, while polychrome vessels, particularly those with iconography and epigraphy specific to El Zotz, were created in one or more palace workshops somewhere else around the site.

The evidence above indicates overall that the residents of the Acropolis engaged less in the early production stages of stone tools, and mainly refined existing tools that were obtained from outside producers. In contrast, the people at the Northwest Courtyard and Las Palmitas produced their own tools from start to finish. Although the lithics from La Luna could not be analyzed in detail due to the Covid-19 pandemic, a chert production area was located off of the northeast corner of Str. T1-11 at the group. This find revealed that stone tool production was a prevalent activity in the main patio group at La Luna. A preliminary survey of materials from this feature by Kwoka suggests that the layer of debitage was the result of late-phase biface knapping at La Luna (Joshua Kwoka personal communication 2021). Notably, this was the only in situ production area identified among the four different elite complexes. The volume of debris from flint knapping combined with the central location of the production locus at La Luna affirms that tool manufacturing was an activity in life at La Luna.

Consumption

The remaining ceramics in the assemblages from the Northwest Courtyard, Las Palmitas, and La Luna were categorized as serving vessels, both monochrome ones for routine use and polychromes for ceremonial events. Serving vessel statistics reflect the obverse to the trends regarding unslipped vessels. The Acropolis yielded a noticeably higher percentage of monochrome and prestige sherd weights (40.26% and 6.92% respectively) than commoner households (34.73% and 2.84% respectively), while the quantities in the Northwest Courtyard and Las Palmitas are again consistent with a typical residential assemblage in the Buenavista Valley (Table 14-15). At La Luna the proportion of serving vessel sherd weights was above average (58.81%), although not as high as the Acropolis. However, the assemblage at La Luna contained more grams of polychrome and fine paste serving vessels (10.65%), which required the greatest labor investment to create of all the functional categories. Because it is unusual for a non-monumental residence or a residence outside the site core to contain a higher quantity of valuable pottery than the royal palace of the site, the ratio of prestige serving vessels at La Luna was examined more closely. I investigated the different contexts that high-value ceramics came out of to ensure that the patterns noted above were representative of household practices as a whole, and not driven by unique ritual contexts where prestige pottery numbers may be higher. Yet even when focusing exclusively on household refuse or architectural fill, the percentage of prestige vessels weights at La Luna still surpassed those at the Acropolis (Table 20). This confirms that the unusually high level of precious pottery at La Luna was part of the everyday lives of the aristocrats living at La Luna, and not the result of a singular event.

Table 20: Percent of weight (g) of ceramics from different contexts by functional category

	Unslipped	Monochrome	Prestige	Total
Late Acropolis	**52.82%**	**40.26%**	**6.92%**	**100.00%**
Architectural Fill	53.08%	34.61%	12.31%	100.00%
Ritual Deposit	52.61%	44.91%	2.48%	100.00%
Northwest Courtyard	**65.56%**	**32.66%**	**1.79%**	**100.00%**
Architectural Fill	65.56%	32.66%	1.79%	100.00%
Las Palmitas	**61.71%**	**35.43%**	**2.87%**	**100.00%**
Architectural Fill	63.04%	33.28%	3.68%	100.00%
Household Refuse	60.51%	37.41%	2.08%	100.00%
Ritual Deposit	66.94%	24.72%	8.35%	100.00%
La Luna	**58.81%**	**30.54%**	**10.65%**	**100.00%**
Architectural Fill	57.61%	32.19%	10.20%	100.00%
Household Refuse	63.54%	27.98%	8.48%	100.00%
Ritual Deposit	54.43%	31.76%	13.81%	100.00%

Serving vessels represented almost half of the ceramic collection at the Acropolis, indicating an even split between food production and consumption activities at the group. In contrast, activities in the other groups, both non-elite and elite, concentrated more on producing and storing food than presenting and ingesting it. The situation at La Luna is particularly unusual, and suggests that the extended family at La Luna had privileged access and sufficient means to acquire more high-value pottery than any other lineage group at El Zotz.

An emphasis on consumption over production is also reflected in the faunal assemblage at the Acropolis. The Classic Maya diet was a combination of crops such as maize and squash, marine and freshwater fish and mollusks, and a mixture of forest animals, primarily deer, rabbits, peccaries, and tapirs, as well as dog (White and Schwarcz 1989; Emery 2003; Sharpe and Emery 2015). As previously mentioned, the collection of deer remains from the Acropolis favor the meaty sections of these animals (62.86%), without the typical correlate of bones from processing game. In contrast, the bones at the Northwest Courtyard and Las Palmitas yielded a

notably lower percentage of remains from fatty cuts (38.14% and 38.45% respectively), and instead mimicked the faunal assemblage typical of an average household that processed its own meat (Table 15).

Stylistic Expression

Slips

To define the stylistic preferences of the different lineages at El Zotz I will focus on serving vessels. Serving dishes were produced using a greater variety of design techniques than unslipped wares, and serving vessels were used in public contexts, so they were a common instrument for broadcasting information (M.E. Smith 1987). Generally, Late Classic ceramics at El Zotz followed the broader consumer trends of the Late Classic Maya Lowlands. For daily use people favored red monochrome serving vessels, particularly of the ubiquitous Tinaja group from that time period. Among elite complexes this trend is the strongest at the Acropolis (87.24% of monochrome sherd weight) and the weakest at La Luna (74.21% of monochrome sherd weight), with the Northwest Courtyard and Las Palmitas following in-between (Table 21). The people at La Luna instead possessed black, brown, and gray monochrome bowls in higher quantities than the other elites around El Zotz.

Table 21: Percent of monochrome sherd slip colors by weight (g)

	Acropolis	**Northwest Courtyard**	**Las Palmitas**	**La Luna**
Red	87.24%	80.25%	81.33%	74.21%
Orange	1.65%	9.36%	9.28%	8.55%
Black	5.93%	3.22%	3.87%	8.06%
Brown	5.00%	6.73%	4.32%	7.70%
Grey	0.00%	0.03%	0.08%	0.51%
Cream	0.18%	0.42%	1.12%	0.98%
Total	100.00%	100.00%	100.00%	100.00%

For special ceremonies the aristocracy of El Zotz primarily used orange background and white background polychromes belonging to the widespread Saxche-Palmar Orange and Zacatal Cream groups of the Late Classic. Fine paste ceramics were also introduced into assemblages in the second half of the Late Classic, however these made up a small fraction of the high-value serving dishes at El Zotz, and in the central Peten overall. Saxche-Palmar Orange vessels were the most common prestige ceramics at El Zotz, outweighing Zacatal Cream sherds at every residential group studied here. Over time Zacatal became increasingly common at El Zotz, and by the Terminal Classic cream-based polychromes made up almost half of the remaining polychromes in use.

The difference between the polychrome ceramics from each residential groups was driven by these temporal trends. Residential groups that were occupied since the early Late Classic (the Acropolis and La Luna) yielded a much higher percentage of orange-based polychromes than compounds constructed in the middle of the Late Classic (the Northwest Courtyard and Las Palmitas) (Table 22). Latecomers to the court-scene at El Zotz owned a mix of orange and cream-based polychromes that was more evenly balanced, following the trends of that moment in time.

Table 22: Percent of prestige ceramic groups by weight (g)

	Acropolis	Northwest Courtyard	Las Palmitas	La Luna	Terminal Classic Non-elite
Santa Rosa Polychrome	1.53%	4.26%	0.22%	1.73%	0.00%
Saxche-Palmar Polychrome	83.07%	62.49%	65.55%	78.40%	55.04%
Zacatal Polychrome	14.06%	31.00%	32.94%	17.14%	38.71%
Altar Fine Paste	0.89%	2.25%	0.88%	0.65%	4.85%
Chablekal Fine Paste	0.00%	0.00%	0.14%	2.08%	1.40%
Tres Naciones Fine Paste	0.24%	0.00%	0.28%	0.00%	0.00%
Teabo Fine Paste	0.21%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

Painting Styles

Moving away from broad temporal patterns, I considered the more singular aspects of Late Classic polychrome pottery. Within the polychrome sherds from each residential group distinct painting styles were identified. These styles were executed by artists following a unique set of conventions regarding color, technique, and content to create a visually distinct product. Painting styles can correspond to specific regions, sites, or workshops, and are often expressed as varieties in the type-variety system.

The distinct painting styles identified in elite residential complexes around El Zotz included the Ik' variety from Motul de San José, the Honey Yellow variety from El Perú-Waka', the Petkanche variety from Altun Ha, the Zotz Red variety from El Zotz, and a local version of the Santa Rosa variety that utilized resist-reserve technology. Of these varieties all were present in the collection of ceramics from La Luna, two were present at the Acropolis and Las Palmitas, and one was present at the Northwest Courtyard (Table 23). Unfortunately, the quantity of these sherds at every group aside from La Luna were so small that a statistical analysis of diversity would not be meaningful. However, it is significant that so many examples of singular painting styles were owned by the people at La Luna.

Table 23: Count of sherds decorated in unique painting styles

	Acropolis	**Northwest Courtyard**	**Las Palmitas**	**La Luna**	**Terminal Classic Non-elite**
Santa Rosa Resist	7	1	1	5	—
Zotz Red	—	—	—	19	—
Honey Yellow	—	—	—	107	—
Ik'	2	—	2	2	—
Petkanche	—	—	—	7	—
Total	9	1	3	140	0

Surface Treatments

Aside from their slips, the most distinguishing feature of serving vessels are the variety of surface treatments that potters applied to the clay when molding them. Surface treatments were used on monochrome and polychrome receptacles alike, but the practice was most commonly applied to monochromes. At all of the elite complexes the most popular surface treatments were incisions and impressions. These decorative elements are usually simple: an incised line or a dotted line of finger impressions on the exterior of the vessel, below the rim (Figure 39). Incising is the most popular surface treatment in the core of El Zotz at the Acropolis (62.77% of total weight of sherds with surface treatments) and the Northwest Courtyard (68.50% of total weight of sherds with surface treatments) (Figure 40) (Table 24). Slightly beyond the site core, at Las Palmitas, the split between incisions and impressions is more even (47.85% and 40.99% respectively of total weight of sherds with surface treatments), and further out at La Luna impressions are more common than incisions (59.69% and 31.36% respectively of total weight of sherds with surface treatments). At Terminal Classic commoner households around El Zotz the frequency of incised serving vessels was lowest (18.68%), again creating a dichotomy with the Acropolis.

Although impressions and incisions were the most common forms of surface treatment, a wide range of stylistic techniques was found on serving vessels at each architectural group. Other forms of clay manipulation included channeling, modeling, gouging, stamping, and puncturing, as well as the use of appliques and molds. Multiple techniques could also be combined on a single vessel, creating a myriad of stylistic permutations. Within this range of possibilities, the greatest diversity of surface treatments according to Margalef's Richness Index was found in the pottery assemblage from Las Palmitas (d = 1.94). The second richest collection of surface treatments was presented at La Luna (d = 1.77), followed by the Acropolis

(d = 1.65), and the Northwest Courtyard (d = 1.45). Commoner household ceramics from the Terminal Classic were the least diverse (d = 1.39) in their surface decoration. The least common surface decoration combinations appeared most frequently at Las Palmitas (7.84% of total sherds), followed by La Luna (4.27% of total sherds), and the Northwest Courtyard (3.17% of total sherds) (Table 25). Of all of these residential compounds, unusual surface decorations were the least common at the Acropolis (1.69% of total sherds).

Table 24: Percent of surface treatments on serving vessels by weight (g)

	Acropolis	Northwest Courtyard	Las Palmitas	La Luna	Terminal Classic Non-elite
Channeled	8.25%	3.17%	5.26%	2.91%	29.16%
Appliqued	0.51%	0.00%	0.58%	0.00%	0.00%
Composite	0.00%	0.00%	0.13%	0.00%	0.00%
Striated	0.18%	0.00%	0.00%	1.41%	0.81%
Impressed	21.24%	24.86%	40.02%	54.80%	49.36%
Incised	61.88%	66.87%	46.83%	34.24%	18.68%
Modeled	1.42%	0.00%	2.36%	0.45%	0.00%
Punctured	0.11%	0.00%	0.00%	0.00%	0.00%
Channeled-Incised	0.00%	0.00%	0.00%	0.09%	0.91%
Appliqued-Incised	0.00%	0.00%	0.00%	0.58%	0.00%
Gouged-Incised	5.05%	0.23%	2.01%	0.17%	0.39%
Impressed-Incised	0.00%	4.04%	2.01%	5.23%	0.00%
Impressed-Stamped	0.35%	0.53%	0.00%	0.00%	0.00%
Modeled-Appliqued	0.00%	0.00%	0.38%	0.00%	0.00%
Mold-made-Worked	1.01%	0.30%	0.43%	0.00%	0.38%
Punctured-Incised	0.00%	0.00%	0.00%	0.00%	0.30%
Stamped-Incised	0.00%	0.00%	0.00%	0.11%	0.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

Table 25: Margalef's Richness Index of surface treatments on serving vessels

	Acropolis	Northwest Courtyard	Las Palmitas	La Luna	Terminal Classic Non-elite
Richness Index	1.65	1.45	1.95	1.76	1.39

Table 26: Frequency of rare surface treatments on serving vessels

	Acropolis	Northwest Courtyard	Las Palmitas	La Luna	Terminal Classic Non-elite
Rare Surface Treatments	0.02	0.03	0.08	0.04	0.01

High Culture

In Chapter 2 of this dissertation a review of artifact distribution studies showed that elite status was not indicated by the presence of high-value commodities in Classic Maya residences, but by the frequency of these commodities. A higher rate of prestige vessels in particular is interpreted as a sign that vessel owners repeatedly staged or intended to stage large public displays of wealth in the form of feasts and other ceremonial events. Cross-cultural studies have found that the frequency and scale of household consumption rituals correlate directly to the household's wealth, and that the material vestiges of such events like serving wares are a strong indicator of social and economic status (M.E. Smith 1987). Based on excavations of non-elite patio groups around El Zotz at the end of the Classic period, the typical commoner household possessed a small number of the prestige wares (2.84% out of the entire ceramic assemblage), signaling that residents rarely engaged in extravagant displays that expended their basic resources (Table 14-15).

Unsurprisingly, in comparison to the 2.84% of prestige ceramics found in non-elite household assemblages, the Acropolis yielded over twice that percentage (6.92%). The elevated ratio of luxury dishes indicates that the royal family had the capacity to host larger and more frequent ceremonial gatherings than the typical family at El Zotz. Gatherings functioned not just as a venue for ritual performances and for building social and political connections, but also as a stage for the monarch to brandish his vast wealth. The quantity of high value serving vessels at the Acropolis demonstrates the impressive resources belonging to the royal Pa'ka'n dynasty overall, and the regularity with which the ruling lineage participated in household consumption rituals. Furthermore, the actual metrics from the ceramic assemblage at the Acropolis set the standard for an "elite" assemblage in the context of El Zotz.

Remarkably, the pottery collection at La Luna goes above and beyond this standard; the rate of prestige serving vessel weight from La Luna (10.65%) was over three times the rate from non-elite homes. Even when examining prestige vessels in different contexts at La Luna, high-value dishes still made up over 8% of sherd weights in household refuse and over 10% in architectural fill, two contexts that traditionally have low rates of precious and ceremonial items at El Zotz (Table 20). These numbers show that the residents at La Luna owned an exceptionally high concentration of valuable pottery, at the very least akin to concentrations at the royal palace. Accordingly, the family at La Luna must have hosted lavish ceremonial gatherings of an unprecedented volume.

In contrast, the pottery from the Northwest Courtyard and Las Palmitas did not contain a significantly higher frequency of prestige vessels than the pottery in non-elite Terminal Classic residences. While the unexceptional level of prestige vessels at the Northwest Courtyard and Las Palmitas is not indicative of elite status, pottery is only one element of a high-class lifestyle.

Iconography painted on pottery conveyed concepts of political power and supremacy.

Symbols of rulership were identified on prestige pottery from the various homes of courtiers around El Zotz. The clearest of these are designs derived from the mat of kingship. The sacred Quiche Maya mytho-history that details the story of the Maize God and the origins of the Quiche dynastic line is named the Popol Vuh, literally “the book of the mat”. Colonial records draw associations between political power and mats as noted in the Chilam Bahlam of Chumayel, which referred to the mat upon which leaders sat; “oh son, you are a ruler also. Oh, my fellow head chief, I will deliver your mat and your throne and your authority also my son; yours is the government, yours is the authority also” (Roys 1967: 95). The woven mat motif was depicted in a variety of forms in Classic Maya art. Versions included a repeating cross-hatched triangle pattern, a chevron band, a braided band, and a checkerboard pattern (Figure 41) (Robiscek 1975). The braided band design is essentially a narrow section of the larger mat, and functions like an abbreviated reference to the royal runner.

The mat emblem appears in many court-specific contexts associated with Maya governance and the institution of kingship. On ceramic vases thrones were occasionally topped with a woven mat (Figure 42), and in the Postclassic codices gods were often illustrated seated on stylized mats (Robicsek 1975). Versions of the mat pattern appear on stele and altars in the civic-ceremonial cores of major Classic period sites. The connection between mats and thrones is clearest in the Mundo Perdido complex at Tikal, where a braided band is modeled in stucco around a Late Classic throne and carved into jade beads (Figure 43) (Laporte and Fialko 1995). This same woven mat motif was replicated on the faces of masonry buildings in the Late Classic at Copan, Palenque, and Uaxactun, and during the Terminal Classic in the Puuc region (Robertson 1983; Valdés 1989; Fash et al. 1992). Stylized braids are also carved and painted onto prestige vessels as isolated elements. This individual symbol provides the viewer with a

sense of the context for which the dish was manufactured, many originating from the tombs of the Maya elite (Robicsek 1975).

Abstracted versions of jaguar spots and woven mats were painted on vessels at the Acropolis, the Northwest Courtyard, Las Palmitas, and La Luna (Table 27). In Classic Maya society jungle felines, particularly jaguars, were symbols of divine power that were wielded by the elite to affirm their sacred supremacy. Wild cats came to signify kingship and royalty, and their bodies and images were found in singularly regal contexts (Benson 1998; Emery 2017). Jaguar, or *bahlam*, was a common element used in royal names, and elite courtiers are often depicted wearing jaguar pelts in courtly art (Benson 1998) (Figure 44). Furthermore, there is an apparent link between jaguars-like felines and thrones that ties jungle cats to political authority (Robicsek 1975). Classic Maya vases portray throne cushions made of spotted feline furs, and jaguar-shaped thrones are depicted on monuments at Palenque and Tikal (Figure 45-46) (Reents-Budet 2001). Similarly, an actual jaguar-shaped, stone-carved throne was identified at the Terminal Classic sites of Uxmal and Chichén Itzá, and Postclassic political leaders in the Books of Chilam Bahlam are said to have sat on “jaguar mats” (Figure 47) (Roys 1967: 66; Robiscek 1975; Kowalski 1987). Felid remains were found in royal Maya burials as well as major ritual caches, but rarely in other contexts (Sugiyama et al. 2018; Sharpe et al. 2018). The significance here is the exclusive relationship between the regency and wild cats, and the products of felines that were used to furnish courtly facilities (the ritual significance of felines will be addressed in Chapter Seven).

Table 27: Number of vessels with rulership iconography

	Acropolis	Northwest Courtyard	Las Palmitas	La Luna
Jaguar spots	**3**	**2**	**2**	**7**
Woven mat	**4**	**1**	**1**	**2**

Jaguar spot and woven mat patterns were found on vessels at the Acropolis, the Northwest Courtyard, Las Palmitas, and La Luna (Table 27, Figure 48-57). The spatial distribution of these patterns on polychrome pottery has not been surveyed at large in the Maya region, so it has not been proven that these regal motifs were restricted to the pottery of elite court members. However, mat patterns on architecture and other portable goods are exclusive to royal and noble contexts, and court scenes in Maya art show how jaguar pelts and mats were regular palace furnishings, suggesting an association that the viewer was meant to draw between the iconography on these dishes and the residences where they were found (Reents-Budet 2001).

Certain items are associated not just with elite status, but with the court of El Zotz specifically. Unique painting styles and epigraphic traits were developed by artisans and scribes in the palace workshops of El Zotz and rendered on polychrome vessels for the elite members of the Pa'ka'n court. These local inventions included the Zotz Red painting style, a vibrant polychrome variety that favors red hues and depicts supernatural creatures (Figure 58), and the two Pa'ka'n emblem glyphs. Although the reason for using two Emblem Glyphs has yet to be explained, this phenomenon is not unique to El Zotz (Martin 2020). Whatever the reason, the dynasty at El Zotz employed two different emblem glyphs: the split-sky glyph and the earflare glyph. Scribes at El Zotz also devised creative ways to work the Pa'ka'n toponym into abbreviated versions of the Primary Standard Sequence (PSS), substituting the split-sky glyph for the "u" glyph in the phrase "u jaay", roughly changing the translation of the phrase from

“his/her vase” to “the Pa’ka’n vase” (Houston 2008). Another local epigraphic convention was the use of the “**BAH**” logogram instead of the “**bah**” syllabogram to write the phrase “u-tz’ib’-al”, translating roughly to the term “painted” in the section of the PSS that describes the surface treatment of a vessel (David Stuart, personal communication 2021). These written and illustrated elements are present exclusively on local prestige pottery that was produced for the royal and noble members of the Pa’ka’n court. As such, these elements appear only on materials that belonged to the Pa’ka’n aristocracy, or that were gifted by the Pa’ka’n aristocracy to select associates.

Sherds with the above local conventions were found at the Acropolis and La Luna. Not unexpectedly, the emblem glyph appeared on a sherd in the royal palace of El Zotz (Figure 59), but it was surprising that so many products from the Pa’ka’n royal court were found at La Luna. Examples of the “bah” logogram (Figure 60), the split-sky toponym “u” substitution (Figure 61), a royal title (Figure 62), and the earflare emblem glyph (referring to a royal woman) (Figure 63) were all recovered at La Luna, as well as 19 sherds of the Zotz Red ceramic variety (Figure 58). These materials suggest that despite their distance from the site core, the people at La Luna had a close relationship to the court of El Zotz, specifically to the Pa’ka’n royalty.

Beyond pottery, one particularly rare item recovered from architectural fill at La Luna was a carved shell glyph (Figure 64). This glyph was carved out of an iridescent shell, possibly one that was imported to El Zotz from the coast (Gutiérrez in press). The glyph appears to be the head of a god, but a more specific identification could not be made (Stephen Houston, personal communication 2018). It was put forth by Steve Houston that the shell glyph may have been a decorative element attached to a costume, like those depicted on the headdress of Lady K’abel on Stela 34 at El Perú-Waka’ (Figure 65). Comparable carved glyphs have been uncovered in royal graves at Piedras Negras (Stephen Houston, personal communication

2018). Such ornaments appear to have been socially exclusive given the restricted contexts where they were found. Carved shell glyphs may have been part of the ritual attire of influential political figures. If the of glyph ornament was used for ceremonial purposes, then the owner of the object at La Luna may have possessed greater access to ritual knowledge.

Synthesis

Acropolis

Signs of production in the archaeological record were less frequent at the Acropolis compared to the rest of El Zotz. Only half of the pottery in the royal palace was dedicated to preparing and storing food, when the number is closer to 65% in typical local households. This discrepancy implies that the royal family was less involved in cooking and preparing food than the average family, and less food was stored in the royal palace than is typical for commoner residences. In complement to this observation is the low percentage of bones related to meat processing that were found at the Acropolis. The disproportionate emphasis on meaty animal cuts versus boney cuts (typically removed during butchering and cooking) suggests that some of the meat from the Acropolis was processed elsewhere and then brought to the royal family. The low proportion of cooking vessels and traces of food processing indicate that the royals did less of their own cooking than the rest of the local population, and instead were most likely provided food by support staff stationed elsewhere.

The low ratio of lithics found at the Acropolis combined with the modest quantities of raw chert suggests that the Pa'ka'n royal family did less stone tool production than the rest of the aristocratic lineages around El Zotz. Instead, the majority of flint knapping at the Acropolis was done to enhance and sharpen existing tools. This ratio indicates that many stone tools arrived at

the Acropolis pre-formed, and the residents of the royal palace needed only to refine their tools rather than create them from scratch.

The serving dishes at the Acropolis were the most uniform in appearance of any residential group. A vast majority of plain serving vessels were red slipped, and most ceremonial serving vessels were orange-background slipped. The Pa'ka'n royal family owned examples of two unique painting styles, but these were in low quantities (9 pieces total). Pottery that was decorated with surface treatments was typically incised, and to a lesser extent impressed (the two most common forms of surface treatment in the Late Classic Peten). Moreover, the people in the Acropolis were the least likely to own dishes with uncommon surface treatments. These statistics reflect an aesthetic that largely followed the most popular stylistic trends of the Peten in the Late Classic, with a focused eye on red and orange tones and minimal divergence or innovation.

Unsurprisingly, the regal residents of the Acropolis owned far more high-value serving vessels than was typical for a Maya household, and had unique access to symbols of rulership like jaguar and mat motifs and painted emblem glyphs. The proportion of valuable objects and the presence of these elite-specific icons, combined with an emphasis on everyday consumption, like eating meat and using finished tools, rather than production, like processing animals and making tools, paint the picture of a luxury lifestyle at the Acropolis. The royal family at El Zotz possessed great physical wealth, and were most likely provided for by staff in auxiliary facilities outside of the palace. The royal aesthetic was one that followed the major fashions of the time, with minimal departure from the Peten's most popular ceramic styles.

Northwest Courtyard

Based on the construction and setting of the Northwest Courtyard, the people who lived in this complex were either low-level elites or non-elite courtiers who interacted regularly with the royal family and frequently attended activities in the administrative heart of the Acropolis. If the Northwest Courtyard was the residence of the external support staff that butchered, cooked, and stored food and prepared tools for the royal court, then the production activities at the Northwest Courtyard would have exceeded the needs of the people living there. In this scenario the ratios of production versus consumption activities (cooking and storage wares vs. serving vessels, early versus late-stage lithic production, boney vs. meaty animal parts) at the Northwest Courtyard would be greater than those ratios at independent commoner households. Alternatively, if consumption activities were as prevalent at the Northwest Courtyard as they were at the Acropolis, this would signal that the family in the Northwest Courtyard was similarly provided for by outside staff. In this scenario, the people in the Northwest Courtyard were perhaps not politically influential but benefited in the day to day from a close connection to the royal family.

Contrary to both of these scenarios, daily life at the Northwest Courtyard focused on subsistence and self-sufficiency within the household. The possessions and refuse left by the family that lived in the Northwest Courtyard were typical of the average household at El Zotz. The people at the Northwest Courtyard owned a normal ratio of cooking pots and storage jars by non-elite standards. This ratio significantly outweighs serving dishes of any kind, signaling that the people at the Northwest Courtyard put more effort into preparing and stockpiling food than dining. Faunal and lithic remains also confirm that the Northwest Courtyard residents processed their own meat and produced many of their own tools from raw chert. A high

percentage of chert nodules versus a low percentage of thinning flakes emphasizes early stages of tool production more so than the later, finer steps in the manufacturing process.

These activities are akin to those of a commoner family more so than the royal family next door, who primarily worked in the latest stages of the production process, and emphasized consuming goods just as much as they emphasized obtaining and creating goods. At the same time, because signs of food and tool production at the Northwest Courtyard do not exceed what was normal for an independent, commoner household around El Zotz, it does not seem that the family at the Northwest Courtyard did additional work to provide for people beyond their own patio group. Thus, while the ceramics, fauna, and lithics at the Northwest Courtyard do not reflect a family of exceptional wealth or status, these materials also do not characterize a family of attached cooks and craftspeople. Signs of household production at the Northwest Courtyard do not exceed the normal subsistence needs of a family unit. Therefore, while the family at the Northwest Courtyard was not supported by external labor like their royal neighbors, they were not the production staff that the royal family outsourced to either.

As with commoners, the people in the Northwest Courtyard owned few luxury dishes and primarily used simple monochrome serving plates and bowls for eating. The serving vessels that the Northwest Courtyard lineage owned mimicked the homogenous style of the royal family's dish collection. The majority of monochrome serving dishes were coated in red slips, and almost two thirds of prestige wares were painted with an orange base slip. The family of the Northwest Courtyard also favored incised vessels in proportions similar to the Acropolis. These trends are suggestive of a family that followed the fashions set by their powerful neighbors in the Acropolis. In some instances though the style of the people at the Northwest Courtyard had underlying parallels to commoner pottery styles. Polychromes at the Northwest Courtyard were painted in a generic manner typical of the Peten, almost completely devoid of unique painting styles.

Furthermore, the richness of surface treatments at the Northwest Courtyard (d = 1.45) was even lower than at the Acropolis (d = 1.65), and was more akin to the diversity of surface treatments in commoner assemblages (d = 1.39). The stylistic trends at the Northwest Courtyard suggest that this lineage group followed the aesthetic traditions set by the royal family, but to a simpler extent with less variety and specificity. The family possessed barely any examples of unique artistry, and invested in the simplest surface treatments with the least deviation of any lineage group.

The family at the Northwest Courtyard owned a minimal quantity of prestige ceramics overall, implying that they did not host large ceremonial gatherings centered around household consumption and displays of wealth. This is perhaps not surprising, given the proximity of the Northwest Courtyard to the Acropolis. The people in the Northwest Courtyard may have attended neighboring gatherings rather than hosting their own. In spite of the sharp contrast between the Acropolis and the Northwest Courtyard, the presence of certain majestic symbols in the courtyard, such as jaguar-spotted and woven mat painted pottery, indicates that though perhaps not wealthy, the people in the Northwest Courtyard had some kind of symbolic relationship with divine authority.

The findings listed above indicate that the people living in the Northwest Courtyard were not craftspeople or cooks for the royal court, nor did they enjoy the same advantages as the royal family. Although the occupants did not evidently produce food or commodities for the royal family, their dwellings suggest that among the residents of the site core, they were at the bottom of the power hierarchy. Moreover, the family in the Northwest Courtyard produced all of its own food and commodities and it did not own any objects (or any quantities of certain objects) that were indicative of the privileged access that comes with elite status. The occupants interacted closely with the royal family and other members of the court, but did not benefit in any clear

material sense from these relationships. Thus it seems that that the Northwest Courtyard was the home of non-elite courtiers. The role of these individuals was not as producers to supplement the daily food and goods in the royal palace, but they may have worked in a personal capacity as attendants to the royal family, or provided services undetectable in the archaeological record like housekeeping or childcare.

Las Palmitas

Analysis of the geographically removed and partially monumental setting at Las Palmitas found that the complex most likely housed the Pa'ka'n royal family regularly, or housed a noble family permanently. Both possibilities explain how residents could commission a massive undertaking of skilled labor to construct the pyramid and palaces at Las Palmitas, so daily practices were analyzed next to help distinguish the most likely of these two options. If the residents of the Acropolis also lived at Las Palmitas on occasion it is expected that the activities reflected in materials at the Acropolis were also found at Las Palmitas. If acts of consumption outweigh acts of production in similar fashion to trends at the Acropolis, then the people at Las Palmitas were most likely of the same supreme status as the royal family. Similarly, if the stylistic choices of the residents at Las Palmitas are similar to the Acropolis, then the two families may be one and the same. Given that a large proportion of household materials came from a midden off of the edge of the palace patio group, it is assumed that the materials analyzed here belonged to the palace residents and not support staff living in the surrounding vernacular structures.

Although the setting at Las Palmitas was defined by majestic buildings and expansive views, the daily lives of the people living there were not unlike those of the people from humble patio groups on the Buenavista Valley floor. The remains of production activities at Las Palmitas

represented every step involved in subsistence tasks, from the raw materials to the final result. Vestiges of lithic production were dominated by discarded chert nodules and bifacial thinning flakes, denoting both early- and late-stage tool production. A similar trend is noted with the remains of animals that were hunted for their meat. Within the remains of deer at Las Palmitas, bones from body parts that were eaten and from body parts that were removed before eating were both present, indicating that game was butchered in its entirety and cooked at the group. Moreover, the ratio of food-related body parts to non-food related ones at Las Palmitas is consistent with a commoner household, suggesting that the cuisine at Las Palmitas was not enhanced by outside support staff, nor did the people at Las Palmitas supplement the diet of other lineage groups. The statistics indicate that day-to-day life at Las Palmitas centered on subsistence activities. This focus allowed the Las Palmitas lineage to be self-sufficient and thrive despite distance from the luxurious civic center of El Zotz.

In keeping with this trend, the Las Palmitas community also concentrated on cooking and storing a surplus of food rather than dispensing it. These activities are reflected in the quantity of unslipped ceramics compared to serving dishes. Of the dishes that were used to distribute food, the vast majority were commonplace, simply decorated receptacles that occurred in quantities traditional of a non-elite El Zotz residence. The Las Palmitas lineage owned only a small number of ornate wares reserved for special occasions.

The people at Las Palmitas favored red-slipped everyday serving dishes and orange-based ceremonial dishes, with some cream-based ceremonial vessels as well. Despite owning only a small proportion of prestige ceramics, residents did their best to create a visually impactful collection by procuring examples of the same specialized painting styles that the royal family owned (though in minute quantities). Moreover, the people at Las Palmitas made unique stylistic choices regarding sculptural surface treatments. Rather than preferring incised serving

vessels, nobility at Las Palmitas used incised and impressed dishes in almost even quantities, reflecting an appreciation for multiple styles. To this end, the occupants of Las Palmitas also owned the most diverse range of surface treatments and the most vessels with rare embellishments of any lineage group. Although the sub-royals at Las Palmitas did not possess many uniquely painted vessels, they experimented with other forms of decoration that were easier to produce, and opted for an assortment of sculptural modifications rather than fixating on one or two.

Overall life at Las Palmitas emphasized self-sufficiency and resource maintenance rather than displays of consumption. The elite courtiers at Las Palmitas did not indulge in large ceremonial feasts or similar displays of wealth like the royal family at the Acropolis, and their practices in stone tool production and animal processing were similar to life in modest, commoner Maya households. But the greatest difference between the material culture at Las Palmitas and other residences around El Zotz, both elite and non-elite, is the stylistic choices that people at Las Palmitas made. Residents of Las Palmitas sought out diverse and unique sculptural decorations on serving vessels more so than any other lineage. Interestingly, the lineage that made the most similar stylistic choices was not from the core of El Zotz, but from La Luna.

Given the differences in the practices performed at Acropolis and the practices performed at Las Palmitas, the evidence suggests that the complexes were occupied by two different families. This conclusion is strengthened by the paucity of elite specific possessions at Las Palmitas. Although a couple vase fragments were found with abstract designs referencing kingship, the occupants owned few prestige wares overall, and none that explicitly mentioned the Pa'ka'n court (or any other court). It seems that although the architecture of Las Palmitas symbolically emulated the Acropolis, it was not occupied by the same people or anyone else of

royal status. Instead, the complex was most likely inhabited by self-reliant nobility who were interested in experimenting with new aesthetics and perhaps other forms of interpretive freedom that came with living outside of the site core.

La Luna

A preliminary assessment of La Luna based on morphology indicated that the group housed a secondary elite lineage during the Late and Terminal Classic. The lineage at La Luna physically separated itself from the royal family in the El Zotz core, but positioned itself in the sacred geography of the valley in the same way that royal families had previously at El Zotz. Moreover, the built environment of La Luna was not extravagant but still entailed considerable terracing and construction which may have required the aid of outside families. This mixture of political distance, moderate local influence, and interest in local power sources is suggestive of a non-royal but prominent family with aspirations of power. To confirm this initial assessment, I anticipated finding elevated proportions of prestige ceramics and other valuable and/or elite-specific commodities at La Luna in quantities higher than normal for a traditional commoner group outside El Zotz. If La Luna was in fact occupied by secondary elites then an uncommon level of wealth would be present in the household materials of the group, particularly high culture items crafted laboriously in palace workshops.

What the people at La Luna lacked in architecture (see chapter five), they made up for in materials. At first glance the community at La Luna behaved in many ways like the modest families residing around El Zotz. The quantities of cooking and food storage implements at La Luna were telling of a subsistence-based existence, and a lithic production locus combined with the large percentage of lithic materials at La Luna overall confirms that the family at La Luna

manufactured their own tools. These qualities are traditionally found at self-sufficient, commoner patio groups.

However, a flourish of ceremonial pottery at La Luna suggests that the inhabitants emphasized ritual gatherings and feasts more so than any humble or elite lineage around El Zotz. Serving vessels made up the remainder of ceramics at the group, but the appearance of serving wares at La Luna did not follow the standardized, traditional aesthetics of the royal family in the core. The family at La Luna mainly served food in everyday red receptacles, but blacks, browns, greys, and creams also occurred in the highest frequencies of any elite residence. For special occasions the residents of La Luna primarily used orange-based polychromes with traditional geometric and figural designs from the Late Classic, but they also owned a large quantity of polychromes painted in five unique styles with distinct iconography and slipping techniques. Unlike in the site core, the community at La Luna preferred impressed vessels over incised ones and enjoyed a variety of surface treatments, with the second richest assemblage of surface treatments of any Late Classic elite residence and the second highest frequency of rare treatments. The combination of unusual decorations, both painted and sculpted, with a lower level of uniformity overall reflects an aesthetic that appreciates variety and innovation. Moreover, the mixture of stylistic choices at La Luna deviates clearly from the standardized tastes of the royal family in the Acropolis.

Although their taste in serving vessels was untraditional, the people at La Luna invested heavily in this type of object, particularly in prestige serving vessels. The La Luna lineage owned the highest percentage (and quantity) of high-value dishes than any other lineage at El Zotz in the Late Classic. The outpouring of ceremonial vessels suggests that the nobility at La Luna hosted multiple impressive gatherings where large quantities of food and drink were served. Such displays of wealth and consumption were intended in part to dazzle guests, impressing on

them the wealth of resources owned by the La Luna nobility. The abundance of prestige pottery at La Luna was further enhanced by iconographic references to kingship (abstracted jaguar spots and woven mats).

Given that many of the vessels from La Luna were acquired through artisan workshops controlled by royal courts, the family at La Luna must have been members of the inner elite circle at El Zotz. Iconographic and epigraphic distinctions confirm that many dishes came from the palace workshops of El Zotz, and were owned by the Pa'ka'n regency. With the exception of La Luna, such royal features are not found at El Zotz beyond the confines of the Acropolis, revealing the close relationship that the people at La Luna had with the royal family of El Zotz. The presence of local royal vessels combined with the extraordinary level of material wealth at La Luna establishes that the people at La Luna were members of the El Zotz aristocracy.

The pottery from La Luna also indicated that while food practices at the group were largely focused on preparing and stockpiling food, ceremonial meals were significantly more common at La Luna than they were at an average residential group at El Zotz or the royal palace. This implies an unusual emphasis on ritual dining, to be discussed further in chapter seven.

Household Materials between Elite Lineages at El Zotz

One of the clearest distinctions between the royal family and their courtiers is that the royal family participated significantly less in production and subsistence activities than the rest of the court (and El Zotz at large). The residents of the Acropolis did less food preparation, less cooking, and less stone tool production than the rest of El Zotz (including secondary elites), and kept proportionally less food reserves on-site. Instead, the royal family acquired much of their meat pre-butchered, much of their food pre-cooked, and most of their tools pre-formed. This

implies that the royal Pa'ka'n lineage relied on outside sources to help fulfill their basic subsistence needs, although no evidence has been recovered to suggest where these activities took place.

In contrast to the ruling lineage of El Zotz, the daily lives of Pa'ka'n courtiers were not drastically different from the non-elite. Cooking and building up food surplus were the main priorities of the people at the Northwest Courtyard, Las Palmitas, and La Luna. Household members performed all of the stages of animal and tool production, turning whole carcasses into cuts of meat for cooking, and knapping raw chunks of chert into finished bifaces and other tools.

One differentiating pattern in production practices was the quantity of stone tools and knapping debitage identified at the Acropolis, the Northwest Courtyard, Las Palmitas, and La Luna. Although no residential complex yielded quite as much lithic material as non-elite households at El Zotz (see table on materials), stone tools and debitage were more common in elite homes outside of the El Zotz core. One reason for this might be that stone tools were primarily manufactured and used by palace support staff rather than the royal family themselves, and people in the Northwest Courtyard benefited from this service as well.

As accessories to the daily practices of each household at El Zotz, everyday objects like ceramics were engrained in the habitus of their users. Thus the visual appearance of these objects would have been internalized by their users, and the stylistic trends that appear overall in a community would have been associated with that community at large.

The ceramic styles of the royal family in the Acropolis trended towards a uniform aesthetic that followed the most prominent fashions in the Peten at the time. Plain serving wares were predominantly coated in red slips, and polychromes were heavily weighted to an orange base slip. Royal courtiers owned a handful of singular painted vases, done in two specialty

styles, but variety was kept largely to a minimum. Sculptural treatments were similarly standardized, with few examples of unique decorative elements. Instead, the royal family favored incisions and occasionally impressions on vessels.

The family in the Northwest Courtyard imitated the standardized aesthetic of the Pa'ka'n royal court by emphasizing red monochrome and orange polychrome vessels, and using very similar surface treatments. In keeping with the general uniformity of the Acropolis pottery, the collection of serving dishes at the Northwest Courtyard was characterized by a low diversity of surface treatments and a low frequency of unusual surface decorations, and only a single example of a unique painting style.

In opposition to the Northwest Courtyard, the nobles at Las Palmitas and La Luna enjoyed a greater variety of colors, artist painting styles, and sculptural decorations. Monochrome vessels at La Luna displayed an array of slip colors beyond red, and polychromes included a large quantity of specialty varieties. Although the slipped and painted finishes on ceramics as Las Palmitas were not particularly inventive, the people at Las Palmitas experimented with a wide assortment of sculptural decorations on their dishes, including particularly unique combinations of elements. The same spirit of innovation was also present at La Luna, where decorative surface elements were notably diverse, with a number of unusual variants. The dichotomy between the uniform ceramic style of the elites in the center of El Zotz and the creative mixture of styles enjoyed by the outlying elites beyond the site core is suggestive of different approaches to art. Members of the court who benefitted the most from social conventions and maintaining the status quo observed traditional concepts of beauty, refinement, and aesthetic value according to regional trends, whereas powerful lineages with a degree of distance and latitude from the central court appear to have sought out artistic

innovation and variety, perhaps as a way of differentiating themselves within the broader tier of local elites.

Despite differences in aesthetics, the El Zotz courtiers did all possess representations of political authority and kingship symbols. Iconography on specific prestige wares at the Acropolis, the Northwest Courtyard, Las Palmitas, and La Luna referenced Classic Maya rulership, governance, and courtly authority. Jaguar and mat motifs on serving dishes denoted the perishable furnishings of Maya courts. The status of each lineage group was demonstrated through certain possessions and icons that were specific to royal Maya courts, and through displays of wealth.

From the study of materials I concluded that the individuals living in the Northwest Courtyard were non-elite courtiers that provided intangible services to the royal family. In contrast, the residents of Las Palmitas and La Luna appeared to be members of the inner elite circle at El Zotz, although not part of the royal family itself. Instead, these two lineage groups represent the secondary elite of the Pa'ka'n court. Now that the role of the residents at the Northwest Courtyard, Las Palmitas, and La Luna has been established, I will examine the methods that these courtiers might have used to gain power or influence within the local government of El Zotz.

7. RELIGION AND RITUAL

Ancient Maya Ritual

One way that lineage groups could compete for power within the Classic Maya political system was through ritual. Rituals are based in the manipulation of symbols, so it is feasible that a family could harness certain symbols to achieve specific goals, like defining social identity, or maneuvering a political situation. It is generally acknowledged that ritual played a heavy role in ancient Maya social stratification and political institutions by the way that people manipulated ritual symbols for power. This is best characterized in Patricia McAnany's (1995) seminal work on Maya ancestor veneration, which explains how Classic Maya rulers legitimized their social station and divine heritage by coopting and amplifying widespread kinship rituals that had been in practice since the Preclassic. The way that ancestor worship was executed in the Classic period changed the context of the ritual practice from a heterarchical to a hierarchical one, thus elevating royal ancestors above all others.

While the context of a ritual can be adjusted to cater to the goals of the practitioner, so too can the objects in a ritual be adjusted. Objects used in offerings (and their arrangement) were carefully selected by the Maya to represent specific ideological concepts which the ritual actors hoped to channel. Caches of jade or other precious materials in a quadripartite formation were planted in civic-ceremonial structures and plazas to center those spaces in the greater cosmos (Mathews and Garber 2004). Everyday domestic vessels were used for community-level ceremonial deposits to express and construct community identity (LeCount 1999). Similarly, jade nodules were cached around the homes of jade crafting households as an expression of household identity and their important role in the production of a sacred substance (Kovacevich 2006). Even on a personal level, tools such as bark beaters and stucco smoothers were placed in burials to indicate the deceased's scribal skills and their role in

creating sacred texts (Rossi et al. 2015). In each case these offerings were carefully selected in order to fulfill a specific agenda. This agenda becomes apparent by analyzing the cultural symbolism behind each object, and the social significance of the object based on the context it was deposited in.

Using ritual to enact agendas has a long-standing history in ancient Maya culture. Ritual was often wielded to gain political power, as evidenced by the rise of state sacraments in the Classic period. At the end of the Preclassic, common household rituals were reimagined by influential families to reflect hierarchical differences between lineages, in addition to unifying members within the lineage. Starting in the Terminal Preclassic, prominent lineages expanded ancestor veneration, dedication, and termination rituals using resources that were not widely available (Lucero 2003). The newly augmented ceremonies were produced on a grand scale by constructing monumental facilities to house rituals, offering a greater diversity and quantity of goods, and procuring exotic and labor-intensive ritual implements (Reese-Taylor and Walker 2002; Lucero 2003; Estrada-Belli 2005; Estrada-Belli 2011; Houston et al. 2015). By using existing rituals and ideologies and reproducing them in a new format, political aspirants manipulated present conventions to their advantage in a way that was permitted within the social system, and thus modified Preclassic household institutions into the monarchical state institutions of the Classic period (Lucero 2003; Giddens 1984). In the Classic period, long-standing heterarchical household rituals and new hierarchical state rituals existed in tandem, one catering to the needs of the kinship unit and the other promoting the king and court government for an entire population. Thus, state and household rituals, although superficially similar, were executed on different scales to serve different purposes.

The level of surplus and resources that these activities required went beyond the output of the individual lineage group, and required aid from the surrounding population and extra-

polity trade networks. Contributions from the general public to the Classic courts indicates that commoners chose to participate in this new system of hierarchy and government, partially in exchange for the supernatural advantages that it provided (Houston et al. 2003; Lucero 2003; Hutson 2016). Having an agent mediating with the gods on their behalf reduced the religious burden of farmers and other commoners, and being represented by an agent of mystical pedigree improved the likelihood that the gods would heed the requests of the populace.

Eventually the court began to develop its own symbolic language that was inherently related to power. Comprehension of these symbols was restricted to a small circle, creating esoteric knowledge, while access to certain symbolic objects was constrained, most likely through exchange spheres. Hieroglyphic writing was of particular use for publicly reproducing and restricting elite symbols, as it conveyed monarchic histories and advanced ritual information about the calendar and sacraments to the elite intelligentsia, without revealing restricted information to commoners. Specific forms of sacrifice, such as bloodletting by piercing the penis with a stingray spine, were performed exclusively by royal men as a means of feeding the gods, while certain mystical forces were possessed explicitly by individual courts and wielded by priestly practitioners in supernatural political battles (see discussion of *wahy* below) (Stuart 1984; Stone 1995; Stuart 2020).

Following Dietler's (2003:67) definition, ritual is action that is "symbolically differentiated from everyday activities in terms of forms of action or purpose". In this sense ritual can be separated from mundane behaviors without needing to parse out "religious rituals" from "ritual-like activities" (Bell 1997). Given the way that religion permeated all aspects of ancient Maya life, it is very difficult to separate which ceremonies met an arbitrary threshold of sacredness. Even so, the spiritual nature of the practices discussed here is evident.

This chapter surveys the places and objects that lineage groups chose to use for their ritual activities, as well as the types of ceremonies performed at each group. These practices offer some additional clues to the courtly role of each lineage group, and provide insight into what each family sought to accomplish through their ritual actions.

Perspectives and Methods

Ritual Facilities

Designated religious structures inside residential groups, such as temples and shrines, were the site of group rituals in Maya residential communities. These structures served beyond the needs of the individual household, but they were also not state religious structures used for public ceremonies pertinent to the well-being of the polity (Gonlin 2007). Residential ritual facilities were most commonly built on the east side of patio groups, and were small and square in form with a tall masonry platform base (Haviland 1985; Gonlin 1993; Eaton 1987). These structures are typically referred to as temples or shrines, and can range widely in architectural complexity and labor investment (Becker 1986). Not all families built designated religious structures alongside their homes, but this does not indicate an absence of religious activity as even houses contained burials and offerings (Hendon 1987). In fact, even in residential groups with religious facilities, ceremonial activity is regularly identified in the remains of dwellings.

In a practical sense, the way that ritual facilities related to their surroundings reflects how religious performances were incorporated into residential and public life. This type of analysis refers back to architectural layouts, reading site plans for the “spatial syntax” that surrounds ritual activity at each residential group (Martin 2001). The arrangement of ritual spaces can indicate the importance of those spaces within each residential complex, and the other types of activities to which they relate.

Ritual Objects

Classic Maya ritual performances are filled with material symbols that are used to express powerful messages. These symbols come in many forms, as evidenced by the array of ritual objects associated with caches, burials, and floor deposits at Lowland sites. Despite the variety, one of the most widespread ritual objects found in Late Classic residences are prestige serving vessels. These elaborately decorated dishes were used during feasts and rites involving the ingestion of special fare such as tamales, chocolate, and atole (Houston et al. 1989). Prestige ceramics were inherently costly because manufacturing them involved significant labor cost and skill, and they were used sparingly for special occasions, so they typically make up a small percentage of household ceramic assemblages. The vases and platters were carved, incised, and painted with detailed decorative elements, including glyphs, geometric designs, and figural scenes. The scenes on the vessels themselves illustrate their use in Maya courts, while the inscriptions on the dishes were also self-referential, describing the shape and use of the vessel itself, as well as its owner (Reents-Budet 1994; Stuart 1998). As these objects were passed around during ceremonies the iconography on them was appreciated and internalized by the participants of the ritual. In this way prestige ceramics were part of ritual practice, and the iconography and texts on the vessels furnished the environment.

In the same way that ceramic style is an intentional choice meant to convey specific information, so too is ceramic iconography. The imagery depicted on dishes owned by a lineage group communicates messages about that group, and as these dishes were used repeatedly, those messages were internalized by the lineage's members (cf. Wiessner 1983; Stark 1998). I assess the general themes and deeper symbolism that underly the iconography on vessels from

the Acropolis, the Northwest Courtyard, Las Palmitas, and La Luna in order to identify potential patterns or messages on the collection of ceremonial vessels from each group.

Methods of Analyzing Iconography

From the Late Classic elite residences around El Zotz I recorded and analyzed 403 sherds with painted and incised iconography and text (Table 28). Of these the vast majority were recovered from La Luna (n = 321). Each sherd was photographed and its type-variety recorded along with a range of attributes regarding the iconography and epigraphy on the sherd. Ceramics from La Luna were photographed and classified by me, and pieces from the other groups were photographed by Nicholas Carter and Ewa Czapieswka. Ceramics from Las Palmitas were classified by Carter, while those from the Acropolis and the Northwest Courtyard were handled by Czapiewska. After compiling the photos and type-variety information of sherds from all of the groups, I documented the imagery and writing on each fragment. Sherds were reviewed by myself, Stephen Houston, and David Stuart, who both provided iconographic identifications and translations of glyphs where possible.

Table 28: Total number of sherds sampled for iconographic analysis

	Acropolis	**Northwest Courtyard**	**Las Palmitas**	**La Luna**	**Total**
Total Sherds	32	23	27	321	403

Ritual Activities

In her review of household archaeology, Cynthia Robin identifies three forms of ritual activity that are identifiable on the household level regardless of social status. These include: (1) burial and ancestor worship, (2) feasting, and (3) dedication and termination rituals (Robins 2003). Unfortunately, due to looting only one of the five graves uncovered at La Luna and one of

the three graves uncovered at Las Palmitas were found intact. Moreover, due to the Covid-19 pandemic it was impossible to obtain access to the funerary offerings from the Acropolis and Las Palmitas, and the human remains from the one intact burial at La Luna could not be analyzed. Due to the gaps in data burials were not included in the comparison of ritual activities across residential groups. Instead my analysis focuses on the dedication and termination rituals characteristic of Maya architecture, and feasting events.

Building Rituals

The ancient Maya put great emphasis on the life cycles of their buildings because structures were (and still are) animate beings in Maya culture and ideology. Rituals regularly accompanied the beginning and end of the use life of architecture in the Classic Period, while the construction of new building phases in the interim was tied closely to the passing of important residents (McAnany 1995). Academic understanding of ancient Maya ritual activity surrounding buildings is enriched by ethnohistoric and ethnographic analogies, which demonstrate similar concepts of manmade structures and their spiritual significance in Maya culture across time (Stuart 1998; Mock 1998; Gillespie 2000). Rituals related to architecture that are most frequently found in Maya archaeology bookend the beginning and end of a structure's "life". These are generally referred to as dedication caches and termination deposits.

Dedication caches were meant to ritually activate or ensoul a building, bringing it to life (Gillespie 2000). Among the modern Tzeltal and Tzotzil Maya newly built homes are provided with a ceremonial meal to ignite the soul and the Tzotzil Maya plant candles in each corner of the house to feed its four cosmological corners (Vogt 1969). A similar Colonial ritual was documented by Diego de Landa as the "house entering" dedication ceremony, in which fire and braziers are lit inside the house to renew its soul (Tozzer 1941). The Classic Maya performed

an analogous “fire-entering” or “house censing” ceremony in stone palaces, in which fire was used to dedicate the home and perhaps ignite the hearth, which represented the central pillar or world tree of the Maya universe in the house cosmogram (Stuart 1998; Taube 1998).

In archaeological contexts, votive offerings were placed intentionally beneath or inside the construction of a building before it was completed (Coe 1959; Garber 1983). Dedicatory caches, those offerings that were meant to ensoul a building, usually consisted of whole (unbroken) items of significance carefully curated beneath or within the foundation of the structure. These caches are found in almost any type of building; dwellings, temples, and civic architecture are all frequent sites of dedication offerings.

In contrast to dedication offerings, Maya termination offerings typically consisted of broken, fragmented objects laid across the final floor of a building, or across a structure before it was dismantled and covered with a new building (Coe 1959; Garber 1989; Coe 1990). These deposits typically included a layer of white marl with reused midden materials that were intentionally scattered and burned across the desecrated structure (Coe 1959; Coe 1965; Garber 1989; Garber 1998). Termination deposits are interpreted as the symbolic interring of a structure, desanctifying the building and burying it, sometimes under another building in the same way that the Maya entombed their dead (Kunen et al. 2002). The smashed materials in a termination deposit parallels the destruction of the building itself, ending its use life in the same way that breaking an object takes it out of circulation.

Dedication and termination deposits were found in the Acropolis, Las Palmitas, and La Luna. However, just categorizing the type of ritual that these deposits resulted from is not meaningful in itself. In order to infer the specific intention or cultural meaning behind each deposit it is important to examine the content and context of caches. Ceremonial offerings and refuse were carefully designed by the Maya to reflect notions of the Maya beliefs system on a

micro scale, so the notions behind each deposit are as important as the act of deposition itself (Mathews and Garber 2004; Newman 2015). The objects chosen for each cache as well as their arrangement are considered here as part of the larger meaning of each ritual activity.

Feasting Rituals

Feasts are another ceremony that are well evidenced in the Lowland Maya archaeological record. Feasting was an all-encompassing activity that could be put on by households of any class or social station, and could be performed in public or private contexts (cf. Dietler 1996) (LeCount 2001; Robin 2002; Clayton et al. 2005; Blackmore 2011; Eppich 2014; Cagnato 2018).

The fundamental, underlying function of all of these feasts is to create or maintain important social relationships (Hayden 2001). In practice, feasts are a mechanism for building and maintaining alliances for factions within a political system (Brumfiel 1994). Coalition building is one of the few indicators of factional competition that can be identified in the material record; as fracturing increases among the players in a political system, players build up alliances and define their political networks in order to secure their own position. This manifests in a variety of behaviors, including increased exchange and gifting between allies and joint ritual performances to improve relationships between disparate parties (Brumfiel and Fox 1994). Feasting is a classic example of a joint ritual used by factions to build their political networks, hence its utility to the present study.

Feasts establish a sense of community between attendees and can create relations of reciprocal obligation, ensuring that the relationship established by the feast will be strengthened and reproduced at future feasts (Mauss 1966; Dietler 1996; Mauss 1966). Feasts are also used to gain social clout by indebting the attendees to the host, and to reinforce social inequality

between the host and his attendees, or between the included and the excluded parties. Ancient Maya studies have particularly focused on diacritical feasts, which demonstrate the host's social capital through culturally significant symbols rather than quantity of food offered (Houston et al. 1989; LeCount 1999; LeCount 2001; Emery 2003; Montero Lopez 2009; Houston et al. 2010). These feasts are thrown by the Maya elite with elaborately decorated dishes, which function as the symbols of prestige for the feast. Diacritical feasts are exclusive events attended and thrown by the upper echelon of Maya society, meant to reinforce the unequal power dynamic between the attendees and the uninvited.

Feasts focus on consumption as a way of conveying and validating the social status of the host and guests. Objects of consumption (food and drink) and objects intrinsically linked to consumption (the vessels that house and deliver the food and drink) become the means of expression at a feast (Dietler 1996). Through the display and excessive consumption of prestige goods, diacritical feasts provide a venue for the host to compete for status, particularly in societies where political and social station isn't rigidly structured (Brumfiel 1987; Dietler 1996; LeCount 2001). This scenario is true for the Classic Maya, as demonstrated by the lack of clearly delimited classes or ranks and the heterogenous deployment of political and religious titles (see Chapter Two). Through grandiose consumption Maya families fed a strong and prosperous image of themselves to their guests.

Given the taphonomic obstacles to reconstructing ancient meals, particularly in environments as humid as the Maya Lowlands, studies of ancient Maya feasting typically focus on food delivery objects instead (LeCount 2001; Clayton et al. 2005; Eppich 2014; Cagnato 2018). Diacritical feasting contexts generally contain a high relative frequency of serving vessels for plating and distributing food, and a high relative frequency of prestige wares within serving vessels. Frequency of serving vessels and of prestige vessels is therefore used as an indicator

to identify the remains of feasts. Notably, feasting deposits are typically not found in their original context, but are transposed elsewhere for use in building fill or termination deposits so the context of feast refuse may obscure its identification (Clayton et al. 2005; Eppich 2014; Cagnato 2018).

My review of the ritual evidence is presented here in three sections. First, I will look at ritual facilities of each residential group to understand the context in which ceremonies were meant to be performed at each compound. After this I will consider the most common ritual objects found at each group (serving vessels) and what their iconography may communicate. Finally, I consider the ritual acts themselves, looking at the form and contexts of ritual deposits to understand the intentions of each one.

Ritual Facilities

Acropolis Religious Venues

The main religious venue for the royal court of El Zotz was Str. L7-11, the tallest pyramid at El Zotz (24.8 m) and the most labor-intensive construction project in the Acropolis (Carter et al. 2018). This structure was built in a single construction phase during the second half of the Late Classic (the Caal phase, see Chapter 4), at the same time that the Northwest Courtyard and Las Palmitas were built. An exotic and opulent cache placed in the core of the pyramid consecrated this building as sacred space charged with supernatural essence. The pyramid was topped with a small temple composed of two narrow tandem rooms, sporting a roofcomb that has since deteriorated.

Structure L7-11 was built immediately adjacent to the Acropolis, just south of the eastern end of the royal plaza (Figure 23). It was a large, late addition onto the east end of the royal compound, following Maya spatial conventions for ritual structures in residential patios. The

placement suggests that Str. L7-11 was a natural extension of the Acropolis as a residential group, and a small passage between the southeast corner of the Acropolis and Str. L7-11 guaranteed Acropolis residents private, preferential access to Str. L7-11. Structure L7-11 had all of the hallmarks of a royal mortuary pyramid, which was derived from the concept of the ancestral shrine in ancient Maya household groups (Lucero 2003). The pyramid was located on the east end of a plaza, it was the highest structure at the site, and a ballcourt alley south of the pyramid pointed towards the building, highlighting the plausible location of a royal tomb (Houston 2014).

Although Str. L7-11 functioned as the official ritual structure for the royal family, it was constructed on the outer edge of the Acropolis, and could only be accessed by leaving the residential and political facilities of the palace. It is important to note that Str. L7-11 faced the public plaza outside of the palace, where courtiers and visitors would have passed as they came and went through the palace entrance. The open location of Str. L7-11 meant that the broader population around the core of El Zotz could also witness major rituals performed there by the royal family, particularly if processing from the civic-ceremonial East Group along the eastern causeway.

Structure L7-11 was undoubtedly a symbol of the divine pedigree of the dynastic family in the Acropolis. The temple was a feat of epic proportion for El Zotz, composed of more construction volume than any other building in any other residences at El Zotz. Such a statement of labor investment signaled the political power of the royal family, and the grand scale of the venue indicated that the rituals performed there related to state institutions and not just the household.

In regards to the placement of Str. L7-11, it seems that the royal family wanted to establish a separate space for group rituals, essentially dividing the domestic and political

activities performed inside the palace from the religious activities performed by the king and his ecclesiastic advisors. The semi-public location of Str. L7-11 may reflect a dual purpose as both the ritual structure for the residents of the Acropolis, and a public shrine to the divine power that underlies kingship at El Zotz. In this way the building mirrored the translation of kinship rituals to Classic period kingship. The trend towards publicizing once private family rituals to broader audiences reflects the growing tension in the Late Classic between the kinship structure that is the basis of Maya social organization, and the dynastic system of government that appropriated kinship structures to establish monarchies (McAnany 1995; Lucero 2003). Structure L7-11 projects the tension between kinship and kingship by acting as both a temple for family ritual activities, and a stage for public performances that legitimate the state's political authority. The temple was built to walk the line as both a private, residential space and a public, civic-ceremonial venue.

Northwest Courtyard Religious Venues

The Northwest Courtyard lacked any ritual-specific structures that housed religious activities. The only ritual deposit uncovered was a burial beneath the floor of Str. L7-17, the main dwelling of the group. Instead, the closest religious building to the Northwest Courtyard was the pyramid Str. L7-11. Given how the Northwest Courtyard articulates with the Acropolis, it seems most likely that Str. L7-11 was the focal point of group rituals for the people living in the Northwest Courtyard, and that residents living there traversed through or around the Acropolis to witness rites and participate in public ceremonies. Given this arrangement, the venue for communal rituals in the Northwest Courtyard was also separated from the actual living area of the complex.

Las Palmitas Religious Venues

The main venue for religious ceremonies at Las Palmitas was the pyramid Str. M3-1. Built in a single major construction phase in the second half of the Late Classic (the Caal phase), the pyramid was 12 m tall with a steep staircase and temple that housed a small one-room interior sanctuary for priests and privileged individuals to perform intimate ceremonies. The building literally housed divine acts and substances, as it contained a cache of consecrated materials within its architectural fill (Carter and Gutiérrez Castillo 2010). The pyramid was also the repository for at least one grave, however looting makes it difficult to comment on the mortuary function of the pyramid.

Structure M3-1 is situated at the north end of the main plaza of Las Palmitas, gazing out on the valley below (Figure 18). It is conceivable that when Las Palmitas was inhabited and carefully landscaped, the main plaza would have provided sweeping views of the Buenavista Valley from its perch on top of the valley escarpment. Structure M3-1 is shares a platform with Str. M3-3, a small shrine immediately east of Str. M3-1 that encases a looted tomb. The shrine functioned specifically as a mortuary memorial, and given its prominent place next to the pyramid of Las Palmitas, it is assumed that the grave inside once held the remains of a prominent member of the Las Palmitas lineage. The pyramid and shrine combined at the north end of the main plaza embody Classic Maya associations between the north and the heavens, where deceased ancestors reside. Moreover, the main plaza defines the east end of Las Palmitas, immediately east of the palace patio group, providing views of the sunrise, associated with the movements of the sun and rebirth. In this way structures M3-1 and M3-3 were uniquely positioned at the northern-most edge of Las Palmitas in the eastern-most zone of the complex, occupying cosmically charged space related to ancestor worship and mythical dimensions of time.

Structure M3-1 emulates Str. L7-11 in a number of ways. First, as a pyramid Str. M3-1 is constructed on a scale reminiscent of the public works projects at the core of El Zotz. The pyramid, although not as large as Str. L7-11, echoes the form of royal, state-backed ritual structures rather than the small ancestral shrines typical of suburban and rural residential groups. Similar to the Acropolis, Str. M3-1 is not located inside the domestic patio group at Las Palmitas, but immediately outside of it. The layout of Las Palmitas was designed to separate the communal ritual activities of the lineage group from the household and political activities performed in the palaces. Moreover, the location of M3-1 on the main plaza of Las Palmitas is similar to the way that Str. L7-11 opens up onto a public plaza. The main plaza at Las Palmitas was accessible to all of its residents and visitors, but the complex itself was removed from El Zotz and any other dense population, so the plaza was technically public yet somewhat private. This environment echoes the semi-private plaza of Str. L7-11. Even the way Str. M3-1 articulates with the palace patio group at las Palmitas is analogous to the arrangement of the royal palace and Str. L7-11 at the Acropolis. The design parallels between Las Palmitas and the Acropolis becomes more apparent if the plan of Las Palmitas is rotated 90 degrees clockwise (Figure 28). This highlights how the eastern tangential placement of the ritual center of Las Palmitas echoes this same spatial arrangement between the Acropolis and Str. L7-11.

Although structures M3-1 and L7-11 act as the focal point for the ritual activities of their adjacent residents, their placement within public space opens both buildings up to general audiences as well. The similarities between structures L7-11 and M3-1 indicate that family-wide rituals of lineages with significant political power (based on their ability to control labor forces) were made part of the state sacraments at El Zotz in the second half of the Late Classic.

La Luna Religious Venues

The main venue for religious activities at La Luna was Str. T1-11. This building was not small and square like average patio group shrines or monumental like elite ceremonial venues. Instead, this structure was identified as the ritual focus of La Luna based on the physical remains of ceremonies that took place there. Before the construction of Str. T1-11 a chultun was carved into the bedrock under the footprint where Str. T1-11 would later be erected. This chultun was utilized at least in the beginning of the Late Classic if not during the Early Classic, until it was ritually terminated between AD 652-688 (91% probability) with a cache that served as the dedication offering for the foundation of Str. T1-11. At this point the chultun was sealed over and construction began on Str. T1-11. Soon after the ceremonial closure of the chultun a feasting event occurred, the remains of which were used as construction fill for structures T1-10 and T1-11. Later a Late Classic grave was made for a young child under the plaster floor immediately next to Str. T1-11, at the northeast corner of the structure. Given that the Classic Maya primarily buried their deceased directly under their buildings, and typically along the building's central axis, this is a somewhat unusual location for a grave. Interestingly, this same back corner served as the location for a chert workshop during the Terminal Classic, which found left in situ on the floor above . Finally, when La Luna was abandoned late in the Terminal Classic residents ended the life of Str. T1-11 by sealing it with a ceremony involving the smashing of mainly monochrome and utilitarian jugs.

Structure T1-11 is the only building at La Luna where evidence of rituals other than burials was found, and is the site of more ritual deposits than any other excavated structure at the group. Another distinguishing feature of Str. T1-11 is its form – rather than the usual single level basal platform that perishable structures were erected over, Str. T1-11 is composed of one large basal platform and additional tiers built separately on each end of the structure (Figure

19). Given the shape of the structure and the location of walls identified during excavations, it appears that Str. T1-11 supported two separate perishable superstructures, one on the east end and the other on the west end of the basal platform, with an open space between the two on the central axis of the building. This architectural form is unique at La Luna, and corroborates the theory that Str. T1-11 served a distinct purpose for the occupants there, rather than just functioning as a traditional dwelling. Given the ritual emphasis on Str. T1-11 over other buildings at La Luna, it is reasonable to presume that Str. T1-11 was the focus of group rituals at La Luna.

In contrast to other elite courtier residences around El Zotz, the communal ritual building at La Luna was the centerpiece of the compound's domestic space. Rather than establishing separate activity areas, the people at La Luna built their ritual facility within the same patio group as their main households. Additionally, Str. T1-11 was used for everyday activities as well as ceremonial ones. The patio floor that articulates with the northeast corner of Str. T1-11 was covered with a substantial, deposit of chert debitage preserved in its use context, signaling that Str. T1-11 was also used as a workspace to manufacture stone tools. The deposit included a considerable amount of domestic material in addition to the 32 kg of chert debitage, including obsidian, faunal remains, and ceramics in a lot of approximately 2x2 m and 10 cm deep (0.4 m^3). This layer of debris along the edge of Str. T1-11 indicates that the building was a flexible space used for everyday production activities in addition to sporadic ceremonies. Although the building was conceived as a sacred space, constructed on ground hallowed by community rituals, it also served as a functional venue for the mundane practices of the family at La Luna. This mixture of the utilitarian with the spiritually significant is perhaps embodied by the chultun that the structure was originally built over. The chultun itself was a utilitarian feature that would have been used every day for storage, but it became a ritually charged space when the votive

offering for Str. T1-11 was placed inside it. In this way the single venue became a place of both sacred and profane activity.

At La Luna it seems that ritual and domestic space were intertwined. This is evident in the layout of the complex, which combined buildings for both purposes in one patio group, and in the facility chosen for group sacraments, which combined spiritual rites with the everyday practices of the people at La Luna. This unification of ritual and domestic behaviors is very different from other aristocratic residences around El Zotz, where residents built their homes in a way that dichotomizes religious group activities and daily life. Instead, the religious setting at La Luna was traditional for household rituals; ceremonies were accessible to the residents rather than removed, and sacraments were incorporated into the landscape of everyday practices.

Summary of Religious Venues

Analyzing the religious venues at the Acropolis, Las Palmitas, and La Luna revealed important information about the context in which rituals were experienced at each group, and the underlying use of ritual at each group. Structure L7-11 functioned as the main ritual facility for the royal family and as one of many performance stages where the general population of El Zotz observed state rituals. The location of Str. L7-11 in relation to the royal palace and the access between the two venues indicates that the pyramid was constructed as a separated religious space for the royal family and their resident courtiers. This space was intended for use by the royal court, but it was also removed from the residential life and the government administration that took place inside the palace, in a sense separating church from home and state.

The building faces outward on an open space immediately outside of the royal palace, which can also be traversed by public foot traffic. Structure L7-11 was built in neither a fully public nor private location, permitting the ecclesiastic performances at the pyramid to be viewed by both an exclusive and a general audience, while the temple at the summit was an entirely private space. The exposed nature of the royal lineage's personal religious facility signals that that even family-specific activities were part of the public domain when dealing with Late Classic monarchies. Despite the private nature of household group rituals, by the Late Classic, dynastic family practices were publicized because of the way that family organization was superimposed on Classic government structures. The partially public placement of Str. L7-11 reflects the tension between traditional kinship structures of the ancient Maya and mounting obligations to maintain state institutions (McAnany 1995). This may also explain the choice to separate Str. L7-11 from the residential and intimate political life of the Pa'ka'n dynasty, as family ritual became less private.

The people at Las Palmitas mimicked the choices of the royal family in the Acropolis. The religious facility at Las Palmitas, Str. M3-1, was also a monumental pyramid separated out from the residences at Las Palmitas, to the east of the group's palace. Str. M3-1 looks out on a plaza that was open but not easily accessible by the general public, and faces parallel along the palace in an arrangement reminiscent of Str. L7-11 and the royal palace. The accessibility of Str. M3-1 reflects the same competing systems of household ritual and state religion found at the Acropolis. Household ritual focuses inward on internal hierarchy and dynamics relevant to kinship groups, while state religion imposes an additional layer of hierarchy wherein all families and their ancestors are subordinate to a single divine line of ancestors. The way that the ritual structure at Las Palmitas was built echoes the same social forces that were at play in the site core at the Acropolis. This similarity indicates that the people at Las Palmitas emulated the royal

family, presenting their own ritual activities as similar in social and political significance to those of the Pa'ka'n dynastic lineage. In both cases the people at Las Palmitas and the Acropolis intentionally separated their main ritual facilities from the other buildings and activity areas of their residential groups, perhaps due to the necessary visibility that these structures required in the context of Late Classic kingship.

On the other hand, group ritual and domestic life were seamlessly blended at La Luna. The facility at La Luna that was used for group sacraments, Str. T1-11, was built in the complex's main patio group, and was used for both domestic production and major ritual events. As opposed to the royal court of El Zotz and nobility at Las Palmitas, the family at La Luna combined residential and religious practices in one space. The people at La Luna also did not attempt to build a pyramid, nor did they construct the typical family shrine of suburban and rural household groups. Instead, the family built a new architectural form unknown to El Zotz. Although the people at La Luna did not possess the political influence to summon a large labor force for the construction of Str. T1-11, they highlighted the spiritual importance of Str. T1-11 in other ways through its northern placement in the patio group, and through the numerous group rituals performed around the building.

Ritual Objects

The most common surviving ritual objects in residences at El Zotz are prestige serving vessels. These plates, vases, and bowls were used to serve special food and drink during feasts and other ceremonies, so they were an integral element to performing many rituals while also furnishing the events with royal, cosmological, and supernatural symbols.

Iconographic Analysis

To analyze iconography sherds were marked as having geometric designs, figural imagery, or both. Geometric designs were catalogued using Robert Smith's typology of designs in the original ceramic sequence of Uaxactun (1955). Geometric designs varied widely, with 36 different elements identified in various combinations on 233 of the 403 sherds surveyed (Table 29). The frequency of each geometric design element did not reveal any clear trends, in part due to the small sample sizes from the Acropolis, the Northwest Courtyard, and Las Palmitas. Moreover, the significance of most of these designs was unclear (with exception to the mat and jaguar designs discussed in chapter 6). Most geometric designs are skeuomorphic, replicating textile patterns identified on clothing in Maya art, and the gourds which the Maya originally used for vessels in the pre-ceramic era (Stephen Houston, personal communication 2021). In contrast to geometric designs, analysis of figural imagery revealed clearer trends.

Table 29: Count of sherds decorated with each type of design element - some sherds possessed multiple types of elements

	Acropolis	Northwest Courtyard	Las Palmitas	La Luna	Total
Figural	9	1	10	60	80
Geometric	17	18	15	183	233
Glyphic	13	7	7	86	113

Of the 80 ceramic sherds painted and incised with figural iconography, the majority bear only partial elements of a larger scene. Some of the most common partial elements include heads, hands, arms, knees, and feet of anthropomorphic or zoomorphic creatures, and costume elements like feathers. In certain cases it was possible to distinguish the characters that these elements belonged to, allowing for further deductions regarding the scene depicted on the vessel. However, on other sherds it was only possible to determine that the iconography was

figural in nature, based on its placement, coloring, and shape, but not what the image depicted. Of the 80 sherds with figural imagery, only 22 had iconography with enough context to determine the type of scene depicted on the vessel.

Imagery on Classic Maya prestige pottery ranged from natural representations of Maya life, to fantastic portrayals of intangible worlds. One of the most common tableaus on Maya vessels is the court scene, typically depicting a king receiving tribute, consulting with other esteemed characters, or performing rituals. Natural imagery is also widespread, picturing various animals from the Maya Lowlands, including monkeys, fish, and birds. Beyond portrayals of the corporeal realm, otherworldly themes were also illustrated on ceremonial dishes. Maya vases recorded Classic period mythology, depicting deities and heroes in snapshots from larger narratives, or static portraits of known gods. Finally, a unique theme in Maya iconography was found on vases at La Luna relating to the underworld and esoteric forces.

The majority of the 22 sherds with clear iconography were found at La Luna, so there is a naturally greater diversity of scenes in that sample. Sherds from the Acropolis and Las Palmitas were decorated with scenes of courtly life and with mythological scenes, but the sample sizes from these residences were too small for deeper analysis (Table 30). Unfortunately, there was not enough information on the sherds from the Northwest Courtyard to determine what themes were painted on vessels from that group because of fragmentation and surface preservation. Dishes at La Luna were decorated with courtly, natural, mythological, and esoteric imagery, but it is the last category that was unusual and important to the broader history of El Zotz.

Table 30: Frequency of themes on sherds with sufficient figural iconography to interpret

	Acropolis	Las Palmitas	La Luna
Court scene	1	2	4
Mythological	1	1	5
Underworld			7
Natural			1
Total	2	3	17

The Zotz Red Variety and the Cult of the *Wahy*

At the end of the Early Classic a unique painting style developed on pottery at El Zotz that portrayed a parade of ghoulish beasts against a red background (Figure 66-68) (Carter et al. 2018). Unfortunately most examples of the Zotz Red variety were not actually excavated by archaeologists, but looted and sold to private collectors from the 1970s–1990s. Thankfully a number of these were photographed by Justin Kerr or made their way into museum collections, so there is an online corpus of vessels in this variety that are tied to El Zotz by their style and/or their inscriptions (Houston 2008). Zotz Red vases, and other polychrome vases from this time at El Zotz, displayed esoteric iconography relating to death, sacrifice, and deadly diseases.

The most prominent characters on these vessels are the *wahyoob*, a gang of zoomorphic and skeletal creatures with dangerous supernatural qualities (Grube and Nahm 1994; Stuart 2005; Houston 2008). The *wahy* is an elusive concept to Maya scholars still today, as *wahyoob* come in a variety of forms that do not fit into discrete categories, including animal hybrids, death gods, and unknown aspects of well-known deities (Stuart 2020). The identification of *wahy* on Maya vases is aided by inscriptions, which indicate which figures are *wahyoob*, as well as the names of each *wahy* (Stuart 2005). Names of *wahyoob* reflect a

supernatural if not sinister nature, combining animals, natural elements, physical sickness, and death, such as “Fire-Tailed Coati”, “Head Louse Spider Monkey”, “Fire Belly Fox”, “White Bone House Centipede”, “Swollen Man”, “Deer Death”, and “Red Bile Death” (Grube and Nahm 1994). *Wahyoob* are usually depicted in a liminal realm processing and/or taking part in esoteric rites, including sacrifice and even self-decapitation.

Scholars have noted the similarity between the names of *wahyoob* and the names of illnesses and ailments in an 18th century book of Yucatecan medical incantations (Grube and Nahm 1994; Stuart 2020). In the book, maladies are personified as living forces, with their names taking on aspects of the ailment itself. Fire in particular is a common motif in the names of illnesses involving scorching pain, “eruption”, and “burning”, such as *K’ak’ Ne Chapat* (Fire-Tailed Centipede), the personification of ulcers (Roys 1965:37; Stuart 2020).

The animate diseases of Colonial Yucatan could be commanded or influenced by shamans as a form of witchcraft, and the Classic Maya utilized *wahyoob* in a similar fashion (Roys 1965). *Wahyoob* were wielded by the leaders of individual courts, and certain courts even possessed their own specific *wahyoob* according to Classic texts (Stuart 2020). This form of witchcraft falls within the expertise of Classic Maya priests and rulers, both of whom were advanced at channeled ritualistic forces (Zender 2004). Sorcery in the ancient and colonial Maya world was the base of political power and authority, and commanding the dark forces of death, disease, and misfortune was a key component to wielding this power (Freidel and Schele 1988; Coltman and Pohl 2020).

It is most likely that the unprovenanced vessels from El Zotz with *wahy* iconography were taken from the Five Temples Group, which was amplified to its current form at the beginning of the Late Classic, and contained six tombs that were thoroughly looted. Aside from this theoretical source, La Luna is the only location where the Zotz Red variety sherds and

wahy-related iconography were found. Of the seven sherds decorated with these underworld motifs each appeared to be from a different vessel, but almost all were excavated from fill in Str. T1-11 associated with a feasting deposit.

Sorcery and Sacrifice at La Luna

The *wahy* featured on prestige vessels at La Luna included the Fire-Tailed Coati, who was identified based on a reading of partial text next to the figure, an animal breathing fire scrolls (possibly Fire Peccary), a skeleton-monster hybrid face missing its lower jaw, and another intricate skeletal figure (Figure 69-74). Two figures associated with sacrifice were also identified, the first being Akhan (also referred to as God A Prime) (Figure 75). Akhan is a skeletal figure that has been categorized as a *wahy* or a death god. He is regularly pictured decapitating himself as part of a larger scene of underworld ritual frenzy and debauchery (Figure 76) (Taube 1992; Grube and Nahm 1994). Akhan was identified on a sherd from the characteristic dark paint on his face and hairlock that hangs over his forehead, which is covered with a cross-bones pattern referencing death. In general Akhan was associated with ritual performance and sacrifice, and he was occasionally impersonated during Late Classic ceremonies involving dance and bloodshed (Taube 1992). In keeping with this theme, the bottom of a striped cape was identified on another sherd from La Luna (Figure 77). Capes in Maya iconography, particularly striped capes with fringe, were often worn by the executors of sacrifice, especially by *wahy* and Akhan. These mantles could be short or full length, and were tied at the neck, often referred to as “sacrificial scarves” (Winzenz 2013). The presence of a cape with striped fringe, although not conclusive, is certainly a feature of scenes relating to death and sacrifice (Figure 78). Likewise, a ceramic drum base found at La Luna was covered in floating eyeballs, another iconographic element specific to occult settings (Figure 79).

Severed eyeballs, or “death eyes” are attributed to Maya death gods (Coe 1973). Eyeballs dotted the “death collar” worn by death gods, a collar of bloodied paper strips often associated with sacrificial contexts (Figure 68, 76a) (Taube 1992). Similarly, death eyes are the identifying trait of a number of specific *wahy*, including a deer-like *wahy* with its eyes falling out, the Fire Belly Fox who holds a torn-out eyeball in their hand, the Red Leafcutter Ant who has eyeballs attached to their body, and Fire Center Death who has eyeballs attached to their head (Grube and Nahm 1994). Considering that the eyeball pattern decorated a drum from the feasting deposit at La Luna, it is plausible that the drum was played for ritual performances, particularly for those relating to sorcery and sacrifice. In fact, given that most of the sherds discussed here are attributed to the same feasting deposit, it is possible that the feast in question included esoteric rites related to the underworld and commanding *wahyoob*.

Taken together, the iconographic elements from La Luna echo general themes of death and esoterica, and more specifically reference *wahyoob* and sacrifice. Given the prevalence of *wahyoob* in the iconography at La Luna, it seems that the family living at La Luna was particularly invested in the cult of the *wahy*, and may have wielded these evil forces, garnering political power. Aside from commanding *wahy*, the people at La Luna were generally interested in sacrifice and its context in the supernatural realm. The imagery on serving vessels at La Luna conveys the ritual knowledge possessed by the residents of La Luna (though excavations found that they were not producing these ceramics).

Although the Red Zotz variety and *wahy* iconography disappear from the material record at La Luna (and El Zotz overall) after the 7th century, this is not concrete evidence that ritual practices related to witchcraft and sacrifice ceased. In fact, themes of sacrifice continue into the Terminal Classic at La Luna. The vase fragment depicting Akhan, the death god of sacrifice, was found among Terminal Classic ceramics in construction fill, suggesting that sacrificial

iconography was still relevant to people at La Luna in the Terminal Classic. Furthermore, a miniature jar holding a small finger bone was uncovered in the Terminal Classic fill of Str. T1-11, representing a condensed act of sacrifice. Bowls containing extracted fingers and teeth are a well-known but poorly understood type of cache at ancient lowland Maya sites. (Chase and Chase 2017; Johnston 2001; McCauley 2019). Similar finger vessels have only been uncovered at El Zotz surrounding the Early Classic tomb of the dynastic founder (Scherer 2015). Cutmarks and other damage to the fingers from these bowls show that they were sliced or otherwise extracted from living or recently deceased individuals.

Sorcery and Sacrifice with the Pa'ka'n Dynasty

Themes of death, sacrifice, and the underworld are also connected to the Early Classic court of El Zotz and its founding. The dynastic founder of El Zotz was buried in a shrine decorated with stucco masks representing different aspects of the sun god and his passage through the underworld, including the Jaguar God of the Underworld (Houston and Taube 2015). The goods that furnished the tomb of the founder included lidded bowls in the shape of *wahy*-like animals, including a screaming howler monkey-centipede hybrid, and a cosmic howler monkey painted in a precursor style to the Zotz Red variety (Figure 80-81) (Newman et al. 2015). To complete this eerie environment were a set of caches outside the tomb of the founder, containing the remains of six sacrificed children placed and burned inside orange-red bowls, as well as numerous finger bowls (Figure 83) (Scherer 2015). The entire shrine of Pa'ka'n's dynastic founder was designed to portray cosmic power through sacrifices, supernatural characters, and a close affiliation with gods of the underworld.

It is interesting that the polychrome dishes from El Zotz are thus far the earliest *wahyoob* in Maya art (Houston 2008). The focus on this iconography early on at La Luna and presumably

at the center of El Zotz indicates not only the importance of the cult of the *wahy* to the Pa'ka'n dynasty, but also ideological pioneering by the court of El Zotz in its early days as a dynasty (Carter et al. 2018). For a small ceremonial center in the middle of a contested landscape between two major superpowers (the Snake Kingdom and Tikal), it would have been difficult for the court of El Zotz to assert any military or political dominance in its own right. Instead, it seems that some of the leaders of El Zotz called upon intangible forces to build their identities in a competitive political landscape. Such efforts were particularly emphatic at El Zotz at the beginning of the Late Classic, between the pottery at La Luna and those presumably taken from the Five Temples Group.

The iconography of La Luna demonstrates a thorough understanding of the ideological concepts that were wielded by the early kings of El Zotz. The cult of the *wahy* and esoteric rites related to sacrifice and death gods were unique to dynastic contexts at El Zotz, suggesting that specific forms of sacrifice and the utilization of *wahyoob* were restricted knowledge developed by the Pa'ka'n court. Their role in the foundation of the dynasty indicate that these esoteric practices were part of the state ritual complex at El Zotz. It seems that the family at La Luna was closely acquainted with occult state rituals. Residents of La Luna may have taken part in sorcery and sacrificial rites themselves, or at the very least they wanted to associate with the practices from which the Pa'ka'n kings derived dynastic power. In contrast, the samples of iconography examined from the Acropolis, the Northwest Courtyard, and Las Palmitas did not explore these aspects. The few definable specimens of iconography from the Acropolis and Las Palmitas stuck to typical themes on Maya serving vessels, such as courtly activities and mythological narratives.

Ritual Activities

Aside from burials, three types of ritual were identified at the aristocratic residences around El Zotz from the Late and Terminal Classic: dedication rituals, feasts, and termination rituals. Dedication and termination rituals relate to the beginning and end of the lives of buildings, while the feasts are focused on people and cultivating relationships.

Dedication Rituals

The community ritual structures at the Acropolis, Las Palmitas, and La Luna were each activated by a dedication deposit when the structures were first built. At the Acropolis Str. L7-11 was embedded with a cache representing a small model of the cosmos. The cache was composed of two polychrome bowls placed lip-to-lip, with 47 shark teeth, a perforated conch shell, two muscovite plaques, and a fragment of a jade pectoral ornament inside (Figure 82-85). Lip-to-lip offerings such as this are interpreted a miniature reproductions of the universe; aquatic objects in the cache are placed at the bottom, representing the primordial sea, layered under jade and other mineral substances representative of the earthly realm. Finally these objects are topped with bowl, which symbolizes the celestial sky and also seals the offering (Mathews and Garber 2004; Guderjan 2004).

By placing a physical representation of the world inside Str. L7-11, the royal family essentially captured the entire cosmos within their temple, and the sacraments performed in Str. L7-11 by the king and his confidants affected the entire universe. In this sense, the lip-to-lip cache inside Str. L7-11 located the Pa'ka'n royal family's ritual structure at the center of the Classic Maya spiritual world (Mathews and Garber 2004). Thus the dedication deposit asserted the divine supremacy of the Pa'ka'n dynasty. Additionally, the exotic nature of the jade, shell, and shark teeth are indicative of networks and wealth on a grand scale, suggesting that the

cache was not just significant to the family that deposited it, but also to the larger population that contributed to its acquisition. Moreover, the shark teeth used in the cache at Str. L7-11 were taken from the upper jaw rather than the lower jaw of a requiem shark, so the chosen teeth were serrated. These teeth may have been intentionally selected because they mimic the sharp, serrated, and aquatic nature of stingray spines which were used by royal men for auto-sacrifice (Newman 2016). Stingray spines were an exclusively royal implement used in bloodletting for state rituals. Given the exotic and diverse offerings within the cache combined with the possible reference to royal bloodletting, the cache in Str. L7-11 was clearly a product of state religious practices.

A cache was also found at the center of Str. M3-1 during excavations at Las Palmitas. Inside a layer of black mud was an offering of the spine of a feline, most likely a jaguar, a bone from the leg of a Yucatan Bobwhite bird, a chert nodule, a burnt chert fragment, and burnt pellets of tree resin (Figure 86) (Carter and Gutiérrez 2011). The composition of this cache is entirely different from the one placed in Str. L7-11. The spinal centerpiece of the cache derives from an animal that symbolizes kingship in Maya society. As discussed in chapter six, wild cats were associated with royal thrones and costume, both of which were made form jaguar pelts, and they were associated with royal individuals who channeled jaguars as their namesakes.

In the case of Str. M3-1, it seems that the votive cache was planted in the pyramid in order to establish a sense of royal authority at Las Palmitas, with the expectation that entombing a jungle cat within the pyramid would provide the leaders at Las Palmitas with a source of political power. By caching a jaguar-like animal in the pyramid at Las Palmitas, Str. M3-1 became an intangible source of dynastic authority for the lineage at Las Palmitas, perhaps intended to validate its rising claim to the Pa'ka'n elite. The location and contents of the offering in Str. M3-1 were both symbols of state ritual, adding to the political nature of the cache.

The votive offering under Str. T1-11 at La Luna was unique in that it terminated the use of a chultun while also activating the life of a new structure that was built over the chultun (Figures 54, 73-74). Sometime between AD 652-682 (91% probability) the people at La Luna utilized the chultun under Str. T1-11 as a space to plant and seal off a dedicatory cache. The cache included a polychrome vase placed on the bedrock, featuring the Pa'ka'n "u" substitution and enlarged head glyphs that are characteristic of the Pa'ka'n court (Figure 87), and a deer bone. In a different section of the chultun a collection of artifacts, including a polychrome bowl, grinding stone, and large jar sherds, sat in a circle of dark, burnt soil, indicating that a fire was lit in the chultun after objects were deposited (Figure 88). Finally, a massive quantity of pottery sherds were dumped down the entrance to the chultun. The sherds included large fragments from unslipped and monochrome vessels, particularly rims, many of which fit together suggesting that complete or semi-complete utilitarian vessels were thrown into the chultun as part of the ritual sealing of the chamber.

The choice to sacrifice a Pa'ka'n polychrome vase for the dedication of Str. T1-11 confirms that the vase held great significance for the people at La Luna, to the same extent that jaguars and the cosmos were meaningful to the Classic Maya. The reverential treatment of the Pa'ka'n vase suggests that the family at La Luna cherished their ties to the court of El Zotz, and Str. T1-11 was ritually activated in a way that emphasized those ties.

Feasts

After the chultun was sealed off construction began on Str. T1-11. During excavations at La Luna a large quantity of ceramics, including many exceptionally well-preserved polychrome sherds, were recovered in the backdirt of looters trenches in Structures T1-1 and T1-11. The artifacts from these looter trenches exhibited a wide variety of iconography and text on plates,

bowls, small jars, and vases, as well as drums and shell ornaments. Although the depositional context of these artifacts was lost, the preservation and concentration of sherds from these trenches, particularly polychrome ones, was distinct from the typical building fill in structures around the main patio group, and across La Luna overall. Sherds from the same vessel with the same level of preservation were uncovered in both Strs. T1-11 and T1-10, indicating that these two structures underwent construction around the same time in the Late Classic, using materials from the same source for fill. The lack of weathering on vessel fragments indicates that the polychromes sherds were not exposed to the elements for a significant period of time, however the scattering of sherds from the same vessel between structures and the lack of complete vessels signals that the dishes were not broken where they were deposited. This allowed me to reject the possibility that the polychrome fragments were originally whole vessels trampled by looters, or that the sherds resulted from a primary deposit. Excavations at La Luna also searched for evidence of pottery production, however none was identified. Instead, it seems that pottery from a ceremonial event was smashed elsewhere and then carried and thrown down as construction fill of Structures T1-11 and T1-10. Looter trenches that contained these well-preserved prestige ceramics also yielded proportionally more animal bones than normally found in fill contexts, and in one case even more than midden contexts (Table 31). Faunal remains, although not yet formally analyzed, did include some deer elements.

The material from the looter trenches in structures T1-10 and T1-11 meets many of the tell-tale signs of a feasting deposit, including a high quantity of ceramics with an abnormally high proportion of prestige vessels and serving vessels. Faunal remains (particularly deer), chert flakes, and ceremonial artifacts such as figurines and drums are also common in feast contexts (LeCount 2001; Eppich 2014). The materials uncovered in the looter trenches of structures T1-10 and T1-11 are similar to those of feasting deposits identified at other sites. In the residential

Tolok Group at El Perú-Waka' a feasting deposit was found that consisted of large water jars, unslipped cooking and storage vessels, polychrome vessels, and drums, as well as chert flakes and tools, figurine fragments, and animal bones (Eppich 2014). Akin to the feasting deposit at La Luna, a number of vessels could be partially reconstructed, but no whole vessels were found in the deposit, indicating that the pottery was broken elsewhere and brought to the primary residence of the Tolok group (Str. N14-2) for deposition. The same is true for a termination deposit composed of refuse from feasts at Blue Creek (Clayton et al. 2005). In similar fashion to the material at La Luna, the scattering of sherds and lack of whole vessels confirmed that the ceramics from feasts were disposed of elsewhere, and later taken from the midden to be used in the termination deposit.

Influential ancient Maya families hosted feasts as a strategy to gain symbolic capital and political influence through multiple avenues. The feast organized by the family at La Luna highlighted the family's personal prosperity and wealth through displays of excessive consumption. Moreover, the prevalence of prestige wares in the remains of the feast indicates that the feast was diacritical (LeCount 2001). In this case the nobility at La Luna invited other members of their elevated social class in order to foster alliances with other lineages in the Pa'ka'n political system (Dietler 1996). Furthermore, the exclusive nature of the feast accentuated the La Luna family's membership to the top tier of ancient Maya society.

It is also worth noting that most of the death and *wahy* iconography in the ceramic assemblage at La Luna comes from these looter trenches. This suggests that sacrifice, the underworld, and dark supernatural forces were visual themes at the feast in question. The serving vessels that were passed around at the feast displayed the army of *wahy* under the control of the Pa'ka'n court, and a range of dark, esoteric sacraments that the Pa'ka'n dynasty utilized to attain power. Given the carefully curated social signaling of ceramics at feasts, it is

clear that the lineage group at La Luna wanted to identify themselves as esoteric experts in the court of El Zotz. The choice in iconography emphasizes their connection to the supernatural basis of power at El Zotz.

Table 31: percent of artifact counts at La Luna from different contexts

	Looter Trenches with Feast Materials			Fill				Midden			
Unit	**27C-1**	**27C-2**	**58A-1**	**27C-11**	**27C-3**	**27C-4**	**27C-5**	**27D-1**	**27D-3**	**27D-4**	**27D-5**
Ceramic	94.79%	92.02%	81.67%	82.42%	54.07%	94.12%	98.43%	95.41%	97.18%	94.70%	95.64%
Fauna	2.47%	5.30%	3.56%	1.67%	0.28%	0.00%	0.00%	0.55%	0.90%	2.26%	1.75%
Figurines	0.09%	0.15%	0.14%	0.00%	0.00%	0.00%	0.31%	0.48%	0.23%	0.09%	0.25%
Lithics	2.03%	2.15%	13.54%	15.43%	44.66%	5.49%	0.94%	3.01%	1.13%	2.00%	1.75%
Obsidian	0.62%	0.38%	1.09%	0.48%	0.98%	0.39%	0.31%	0.55%	0.56%	0.96%	0.62%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Termination Rituals

Finally, termination deposits were noted in the final phases of occupation at the Acropolis and La Luna. The termination deposit in the Terminal Classic Acropolis was the largest at El Zotz, spanning across multiple structures. Fragmented midden materials were scattered on the floors of structures, burned in situ, and packed in a thick layer of mud. Artifacts included grinding stones, faunal remains, chert, obsidian, bone tools, shell, figurines, jade beads, and over 5,000 ceramics sherds (Figure 89) (Newman 2015). Within these ceramics the majority of sherds were unslipped pots and jars (52.63%) and routine monochrome serving vessels (45.13%) typical for a collection of domestic pottery which might be found in residential refuse. The weathering of these materials further confirmed that they were repurposed from a midden, but the careful burning and placement of certain objects demonstrates the social significance that the midden materials still held even after being discarded (Newman 2015). The termination deposit was concentrated around Str. L7-1, but was also found in structures L7-2, L7-6, L7-8, L7-24, and in a restricted patio immediately south of Str. L7-1. The large scale of the termination deposit at the Acropolis is characteristic of state ritual activity, which is not surprising given that the deposit was spread across the political headquarters of the state. The nature of the deposit suggests that the termination ritual was meant to support and perhaps rebirth state institutions at El Zotz as much as it was meant to lay the groundwork for a new phase of family life.

This ritual performance came at a critical point in the history of the Peten. The once thriving centers of the central Peten passed between hands as the original occupants left and peripheral groups moved in, while major sites in the Petexbatun and Usumacinta region lay abandoned. After the court of El Zotz decommissioned their Late Classic iteration of the Acropolis with a termination deposit, they began to lay building fill over the ritual stratum. The

new construction materials signal that the remaining population at El Zotz intended to build a new version of the Acropolis, and the termination deposit was likely meant to wipe out the old court. The Terminal Classic termination deposit at the Acropolis has been interpreted as a simulation of swidden agriculture (Newman 2015). In the same way that Maya farmers slashed down organic vegetation and burned it to create new, fertile soil, the courtiers of El Zotz covered their palace in cultural trash and burned it, taking care to incorporate their refuse in a thick mud before laying down the foundation of a new court (Newman 2015).

The scale and underlying intention of this termination deposit indicated an interest in reinvigorating state ritual at El Zotz in the Terminal Classic. Around this same time auxiliary platforms were added to the main pyramid (Str. M7-1) in the East Group at El Zotz, and a stela was erected commemorating the AD 830 baktun at El Zotz. These activities are indications of renewed state ritual activity at El Zotz in the Terminal Classic, perhaps in an effort to rise above the slow decline of the court system that was sweeping through the central Peten by this time (Carter 2014).

The termination deposit at La Luna also dated to the Terminal Classic, but it was different in scope and content from the deposit at the Acropolis. This ritual feature was laid down over the final layer of Str. T1-11 along its central axis, immediately in front of the platform's Terminal Classic retaining wall (possibly where stairs once existed). The deposit was about 50 cm in diameter, composed of 370 medium- to large-sized ceramic sherds packed tightly together, some fitting together to form semi-complete vessels (Figure 90). Of the sufficiently preserved ceramics in this deposit, 49.24% were unslipped cooking and storage jars and 41.49% were monochrome utilitarian serving vessels, with the remaining portion made up of polychromes. These proportions are typical of a domestic assemblage, so they are consistent

with the type of materials usually used for termination deposits. Notably, the deposit did not contain artifacts other than pottery, and there was no indication of burning.

In contrast to the Acropolis, the termination deposit at La Luna was tightly confined to the central axis of the structure, none of the materials were burned, and no domestic materials other than pottery were included in the offering. Moreover, no hint of building activity was uncovered above the termination deposit. Given these differences, the termination deposit at La Luna was not consistent with an agricultural metaphor, or a state ritual. Rather than burning an assortment of material across a wide area to create fertile “soil” for new development, it seems that the intention of the termination deposit at La Luna was to permanently deactivate Str. T1-11 in a traditional household manner.

Conclusions

In the Acropolis, the location of Str. L7-11 in relation to the royal palace is somewhat unusual for a residential compound because although Str. L7-11 was the main ritual structure accessible to the residents of the royal court, the pyramid was not inside the palace itself. Instead, the pyramid faced towards the entrance of the palace, from the plaza immediately outside of the Acropolis. The ritual structure at Las Palmitas was similarly separated from the main residential patio of the complex. Structure M3-1 with its attached shrine was the designated facility for communal religious activities at Las Palmitas, but it was built around an open plaza as opposed to being incorporated into the residential patio of the complex. The pyramid also stood perpendicular to the palace at Las Palmitas, comparable to how Str. L7-11 was arranged with the royal palace. The division between the designated ritual facility and the palace of each compound indicates that residents of both places wanted to hold group ceremonies away from their homes and political chambers. Moreover, the monumental

architecture combined with semi-public nature of both ritual facilities opened these lineage group venues up to more public audiences.

The introduction of public viewership into family ritual is attributed to the increasingly institutionalized nature of lineage organization at El Zotz in the Late Classic, and its basis in social hierarchy. To affirm their superior standing, elite families from Las Palmitas and the Acropolis made their lineage proceedings more public, to showcase the divine legitimacy of their social status. These rituals thus transitioned from serving the household to serving state institutions, validating the court system and its participants.

In juxtaposition to the Acropolis and Las Palmitas, the people at La Luna integrated their domestic and religious spaces around one patio. No monumental public spaces existed near La Luna, so the designated ritual facility at the group was built among house mounds around the main patio of the complex instead. Although Str. T1-11 was clearly the center of ritual activity at La Luna, it was also used for everyday pursuits like stone tool production, further demonstrating a distinct lack of separation between religious and residential space at La Luna that is more common in household ritual.

Of the range of items used exclusively for rituals at El Zotz, prestige serving vessels were the most common. However, in spite of their numbers, the iconography on sherds from prestige dishes can be difficult to identify. Only a small number of sherds from the Acropolis and Las Palmitas presented enough iconography to interpret. However, the larger sample size of sherds from La Luna permitted a better understanding of the imagery that embellished feasts and consumption rituals at the group. Ceremonial serving dishes at La Luna portrayed fiery *wahyoob*, the sacrificial Akhan, other skeletal characters, and a figure wearing a cape similar to the mantle worn by Akhan and other executioners. Many of these vessels were passed around at the same feast, where guests were also regaled with drumming on a ceramic drum covered

in death eyes. Beyond sherds with evident iconography, more fragmented or eroded examples of the Zotz Red variety were also found at La Luna. Given the common themes on Zotz Red vessels, these sherds may have once fitted to vessels depicting similar scenes of the underworld and esoteric rites.

Ancient Maya feasts functioned like moving exhibits of art, presumably meant to convey a message to the viewers. The imagery on ceremonial vessels at La Luna conveyed mechanisms of supernatural power. Sacrificial skeletons and garments on serving vessels cited the Pa'ka'n dynasty's use of human sacrifice as a means to conjure up dynastic authority. At the same time, the *wahyoob* depicted on the vases were personified forces of pain and misfortune that could be wielded to inflict damage on one's enemies (Stuart 2020). Presented together, these objects touted ritualistic sources of power, ones on which the Pa'ka'n dynasty was based. It is possible that the people of La Luna even maneuvered these sources themselves, as spiritual leaders in the Pa'ka'n court. Sacrifice and sorcery were forms of state ritual, but rather than being presented to the public, these themes were represented on pottery to be viewed only by other elites.

The rituals that the people at El Zotz performed provided greater insight into the unique identities and goals of each Late Classic lineage group. The dynastic lineage at El Zotz ensouled their temple with a miniature model of the universe, symbolizing the supremacy and the centrality of the Pa'ka'n royal family in the Maya cosmos. Moreover, the materials used to represent the vertical layers of the earth were particularly prestigious and exotic, signaling the family's great wealth. The shark teeth, conch shell, jade, and mica required access to restricted long-distance trade networks to acquire, while the mat design bowl that enclosed the cache signified political authority. Therefore the offering in El Zotz Str. L7-11 encoded multiple layers of meaning; the objects inside the bowls signaled the economic power of the Pa'ka'n dynastic

family, the bowls that sealed the offering represented the royal title of the family, and the placement of the entire cache inside Str. L7-11 stated the divine influence that the royal family held over the universe. These concepts underlie the basis of Maya government.

The main symbol in the votive offering in Las Palmitas Str. M3-1 was a jaguar-like animal, which in Maya society represented natural authority and rulership. As the “king” of the American jungles, jaguars were the animal counterparts to Maya kings, and their physical remains were used in regal regalia and courtly furnishings. In the case of the dedication deposit at Las Palmitas, the jaguar-like remains in Str. M3-1 essentially activated the pyramid with the soul of natural kingship and naturalized the political authority of the residents there. The offering either aimed to establish the new identity of the Las Palmitas lineage as it separated itself from the central court of El Zotz, or the offering reflected the already established political power of the family at Las Palmitas by the time Str. M3-1 was constructed.

Finally, the votive offering at La Luna expressed a close connection between the residents of La Luna and the royal court of El Zotz. The vase selected for the cache was inscribed with unmistakable epigraphic choices that emphasized its local origin, so its sacrifice in the foundation ritual for Str. T1-11 memorialized the relationship between La Luna and the Pa’ka’n court.

The people at La Luna further cemented relationships within the local aristocracy by hosting feasts. Diacritical feasts like the ones held at La Luna help to establish relationships between high-status families by highlighting the social divide between included and excluded parties, and emphasizing the exalted rank of included parties through special status symbols that legitimize the primacy of elite lineages. By hosting feasts the family at La Luna could build alliances and expand their political network, thus strengthening their own power within the Pa’ka’n court.

Finally, as families moved away from El Zotz in the Terminal Classic and residential groups were abandoned, the people at the Acropolis and La Luna performed termination rituals to formally end the lives of their buildings. At the Acropolis this was not done for the purpose of abandoning the royal palace, but for the purposes of building a new iteration of the palace. This is made evident by new construction fill, but also by the careful scattering, planting, and burning of midden materials in a manner that mimicked swidden agriculture. The implication of the termination deposit at the Acropolis was that a new crop of buildings would grow, but the compound was swiftly abandoned soon after new construction began.

In contrast to the Acropolis, the termination deposit at La Luna was discrete and small in area. Household ceramics were densely packed along the front entrance to Str. T1-11, and no additional construction was attempted thereafter. The termination deposit appear to have been conclusive and final, bringing occupation to an end rather than generating a new layer of occupation.

The distinct lack of religious activity uncovered at the Northwest Courtyard made it difficult to analyze in the above discussion of ritual strategies used to negotiate politics at El Zotz. No dedication, termination, or feasting deposits were identified at the group and only one burial was noted during excavations which did not contain any funerary offerings. Presumably the people in the Northwest Courtyard worshipped at Str. L7-11 and attended ritual activities at the Acropolis, which may explain the absence of a communal ritual structure in the Northwest Courtyard.

While the scale, luxury, and context of all of the rituals at the Acropolis make it clear that ceremonies by the royal family bolstered state institutions, activities at Las Palmitas and La Luna were not as extravagant. The people at Las Palmitas publicly announced their support of state ritual through the construction of a monumental pyramid, Str. M3-1, similar to (though

smaller than) the ones in the core of El Zotz. The jaguar offered up in dedication of Str. M3-1 was a luxury animal representative of kingship, a symbol that would not have been lost on anyone that witnessed its internment from the public plaza in front of the pyramid. Conversely, the family at La Luna sponsored state ritual through private events like elite-exclusive feasts. Diacritical feasts reinforced the hierarchical system at El Zotz, particularly through the display of high-value commodities and iconography referring to local rituals of dynastic power. Although state rituals were promoted at both La Luna and Las Palmitas in the Late Classic, these activities were performed on a smaller scale in comparison to state rituals in the core of El Zotz. By reproducing symbols and images of state rituals, the nobility at both groups reproduced the underlying structures that state rituals naturalized. Thus both groups supported the hierarchical lineage structure that validated the system of government at El Zotz. It is worth noting that these communities went about this in different ways though. The family at Las Palmitas made public statements supporting state ritual, while the family at La Luna endorsed the system in private settings.

8. EXTERNAL NETWORKS

Maya Foreign Affairs

Thus far this dissertation has explored local life at the homes of different aristocratic families around El Zotz in the Late Classic. The final data chapter presented here looks to the outside, and how the people in these diverse lineage groups engaged with the world outside the realm of El Zotz. The relationships that a community chooses to forge with outside people, polities, and networks are a defining aspect of that community's practice and social identity. Interaction between peoples constructs identity, and people can strategically shape their identities by carefully selecting with whom to associate (Yaeger 2000; Diaz-Andreu and Lucy 2005; Canuto and Yaeger 2000). In this way the relationships that a family fosters with representatives of other polities or merchants in larger trade networks affects the identity of that family. These strategic relationships are publicized and reflected by material objects.

For the Maya some of the most desirable imported goods were distinguishable to the naked eye. These included obsidian, jade, marine shell, and polychrome serving vessels crafted in foreign styles. Given that such commodities were easily identifiable, the items themselves actively communicated information about their origins, and about their owners' ties to the outside world (Wobst 1977; Wiessner 1983). Households could obtain imports by way of indirect trade networks or direct exchange with outside parties. These possessions then broadcast the household's alliances and external ties, contributing to the family's overall identity.

Long-distance trade commodities were highly prized by the Lowland Maya in part *because* they were traded long distances. According to Georg Simmel's (1978) theory of value, objects do not possess inherent value, but they are assigned value by humans based on a subjective judgement of how difficult an item is to acquire In this way the process of exchange itself creates value, and an object's biography (i.e. its exchange history) factors into that worth

(Kopytoff 1987). This concept of worth was exemplified by the trade of prestige serving vessels between Lowland Maya courts. Ornate ceremonial vases were exclusively produced by court artisans and selectively gifted between the kings and nobility of different polities, sometimes over great distances, in order to build alliances. Moreover, these vases broadcasted their place of origin and owners through inscriptions and site-specific painting styles. This contextual information emphasized the powerful personages and places associated with each vase and increased the specificity each vase, which added to their value (Reents-Budet 1994; Lesure 1999).

Political institutions formalize commodity value in order to control social relationships and cement the basis of privilege of those in power, tying the development of commodities and trade systems to political systems. The Lowland Maya are a compelling example of this phenomenon. William Rathje (1972) proposed that the development of long-distance trade networks in the Maya Lowlands during the Preclassic led to greater social stratification and social complexity in the Peten region. While Rathje's theory focused on the availability and allocation of basic resources in the Lowland rainforest, the Preclassic Maya also cultivated distribution networks for luxury goods. Building on Rathje's work, Reese-Taylor and Walker (2002) and Freidel and colleagues (2002) pointed out the role that exchange played in the development of Maya kingship. As concepts of rulership and divine rule emerged in the Late Preclassic period, long-distance trade intensified; the quantity of imported goods at sites increased, new exotic materials such as spondylus shell were introduced, and homogenous material, architectural, and iconographic traditions were adopted within the Peten and northern Belize (Reese-Taylor and Walker 2002; Freidel et al. 2002). Powerful political centers developed at sites along major trade corridors, and imports originally reserved for civic rituals such as jade and marine shell were appropriated as symbols of kingship (Freidel and Schele 1988). Conversely, when Classic

Maya kingship collapsed so too did the trade networks and the demand for prestige commodities in the Peten (Demarest 2004). These parallel developments between politics and exchange support the theory that Maya kingship evolved in part as a means of controlling trade networks and obtaining exotic goods. Given the symbolic and structural connection between political power and long-distance trade, foreign commodities were important in constituting Maya aristocracy.

Methods

Gradations of Value and Types of Circulation

The artifact categories below represent general foreign material classes. Within these material classes existed a variety of forms, some more rare or exclusive than others, reflecting different levels of value (Lesure 1999; Kovacevich 2014). The distribution of these different forms in the Maya Lowlands indicates that different exchange networks were used to circulate commodities of dissimilar forms.

Based on the indiscriminate allocation of the more common, simpler forms of foreign materials, these goods seem to have been disseminated through unrestricted exchange systems (Kovacevich 2014). These systems were likely composed of accessible merchant networks that the general population could engage with to procure foreign goods, including specific status symbols that were apparently not governed by sumptuary laws (Palka 1995; Gonlin 1993; Kovacevich 2006; Reed and Zeleznik 2015).

Conversely, restricted exchange systems were exclusive networks that provided and circulated rare import commodities for select individuals, mainly Maya aristocrats. Excavations of production sites confirm that artifact forms of greater specificity and labor investment were typically produced by elite artisans in attached palace workshops (Reents-Budet 1994; Reents-

Budet et al. 2000; Halperin and Foias 2012). These are the objects typically belonging to the category of “high culture” (Baines and Yoffee 1988). Given that royal courts controlled the production of these objects, aristocrats consequently regulated their scarcity and their dissemination. As a result, the costly and unique forms of artifacts that Maya courts produced were churned out in low numbers and tightly circulated among individuals selected by the aristocrats themselves. This is confirmed by the distribution of such commodities across sites. Objects most likely moved through closed networks by means of commercial trade and gift giving, perhaps carried out by private merchants or court representatives.

Given the above, it is possible to infer not just whether a family had access to long-distance trade networks, but also the nature of those networks based on the forms of foreign materials present in the family’s household assemblage. Recognizing the different circles that a family had access to indicates how well integrated that family was into broader aristocratic networks. If a household only possessed widely traded status symbols, then its occupants were not privy to the most privileged circles that dealt in the most coveted goods. In contrast, households that owned naturally rare imports or singular items manufactured in foreign palace workshops were members of restricted circles that peddled and gifted extraordinary objects. Involvement in restricted exchange can indicate that lineage groups at El Zotz had contacts with exclusive merchants or had direct diplomatic relationships with specific sites outside El Zotz.

Obsidian Analysis

Obsidian was a commonly used material in ancient Maya households of every social tier. Although this volcanic glass could be shaped into elaborate eccentrics for royal patrons, it was typically fashioned into small prismatic blades for domestic use. This use pattern leaves behind debitage and blade fragments for archaeologists to recover and interpret. Obsidian had to be

imported into the Lowlands, however there were a number of relatively close volcanic sources located in the Guatemalan Highlands: El Chayal, Ixtepeque, and San Martín Jilotepeque. Based on modern roads these sites are between 410 - 490 km from the central Peten. Of these El Chayal was the most popular obsidian source in the Classic period, however when established trade routes broke down in the Terminal Classic the Maya switched to acquiring their obsidian from Ixtepeque and San Martín Jilotepeque instead (Golitko et al. 2012). Additionally, obsidian sourcing diversified in the Terminal Classic, and materials from more distant volcanic sources in the Trans-Mexican Volcanic Belt (Pachuca, Ucareo, Zaragoza, and Zacualtípan) were traded down to the Maya Lowlands, albeit in smaller quantities than materials from Guatemalan sources (Braswell et al. 2004; Golitko et al. 2012).

The distribution of obsidian from these different sources has been used to suggest possible trade routes that transported obsidian to the central Peten. Both El Chayal and San Martin Jilotepeque were most likely transported on foot through the Highlands to the Chixoy River, which was the main departure point for channeling obsidian northwest up the Usumacinta River and north up the Pasión River (Hammond 1972; Dreiss et al. 1993). In contrast, high proportions of Ixtepeque obsidian in the Motagua Valley and along the Caribbean coast suggest that obsidian from this source was shipped up the Motagua River and along the Belizean coast, where it was then routed inland via rivers (Hammond 1972; Dreiss et al. 1993; McKillop 1996). Obsidian from volcanic sources in Central Mexico was more common in the northern Maya Lowlands than the southern Lowlands (Braswell and Glascock 2002; Golitko et al. 2012). This pattern supports a seafaring trade route, where obsidian from the various sources around the Basin of Mexico was carried to the Gulf, where it was then loaded onto boats and sailed or paddled around the coastline of the Yucatan Peninsula, and then inland by way of freshwater channels (Braswell 2003).

Although El Chayal obsidian dominates Late Classic assemblages across El Zotz, the variety of different sources that appeared in the Terminal Classic is intriguing. The origins of obsidian artifacts reflect the different trade routes over which those artifacts traveled. To obtain obsidian from diverse sources would have required relationships with merchants who possessed the appropriate trade connections tracing back to the various volcanic sites. Thus, a family's obsidian reflects the different exchange networks to which they were tied. Furthermore, obsidian from different volcanic sources have distinct visual characteristics, which could have allowed the Maya to distinguish between pieces of obsidian the same way experts do today (Braswell et al. 2000; Pierce 2017). In this sense, obsidian is not just the result of connections to the outside world, but it also publicized which connections a household had specifically.

To source obsidian I used a Tracer 5i portable x-ray florescence (pXRF) to record the elemental composition of all obsidian artifacts with a minimum thickness of 0.2 cm. Hector Neff and Michael Glascock then compared and matched the compositional data of each piece to the makeup of obsidian from known volcanic sources in the Americas. Geochemical analysis using a pXRF is a common technique for sourcing artifacts and has been used to track both local and inter-regional economic networks at El Zotz, across the Maya region, and beyond Mesoamerica (Shackley 2010; Meissner 2017; Hruby 2018).

A previous study of El Zotz obsidian was executed by Zachary Hruby in 2012 to identify the range of sources from which obsidian at El Zotz originated (Hruby 2018). In this study Hruby selected obsidian samples based on visual sourcing techniques, and the compositional analysis was performed by Steven Shackley. Because obsidian artifacts were selected for Hruby's study based on visual attributes that suggested unique origins, the results are not proportionally representative of the overall obsidian assemblage at each group. Hruby's results point to the variety of sources from which the people of El Zotz obtained their obsidian, but not to the

frequency that each source appeared in the material record. The hunt for uniquely sourced specimens resulted in low sample sizes, and proportionally underrepresented the most common Late and Terminal Classic volcanic sources (El Chayal and Ixtepeque). This distinction in sampling strategy between the present study and Hruby's made it difficult to integrate Hruby's findings. Even so, the results of Hruby's study were informative. Where Hruby identified an obsidian source not represented at an architectural group in the data from the present study, that observation was included in order to most accurately represent the diversity of obsidian sources at a group. In each of these cases only a single observation was added to the overall complex assemblage, so the proportions of different obsidian sources represented were not significantly affected. However, in the case of the Acropolis, where all of the obsidian source data came from Hruby's study, the results were not statistically analyzed.

Jade Analysis

The notion of green, or *yax*, was a focal point of Maya visual culture. Green color theory was consistent across Mesoamerican cultures, tying the color of maize, which was the mythological source of humans and the basis of the Mesoamerican diet, to concepts of agriculture, vitality, and prosperity (Houston 2009). Raw materials with blue and green hues took on these same connotations, and jade in particular became a sacred substance that alluded to divine power. The supernatural symbolism of jade dates to as early as the Middle Formative period, when the Olmec used jade to carve celtiform maize god effigies and to create cosmograms of the cardinal directions and the world tree (Taube 2005). In the Classic period the Maya elites buried ritual caches of carved jade, wore jade pendants and earspools, and interred their dead with jade beads in the mouths of the deceased. By this time the divine power associated with jade was also tied to Maya rulership. Rulers were viewed as human

embodiments of the maize god and the world tree, thus the connection between kingship and precious blue and green stones like jade was a natural extension (Taube 2005).

Maya jade is typically sourced from the Motagua Fault Zone in the Maya Highlands (Hammond et al. 1977). Excavations at jade workshops revealed that both high and middle status Maya families worked with jade, however only Maya elites possessed the tools to create finely carved jade objects like those used in state rituals or buried with Maya kings (Kovacevich 2006; Walters 1982). Furthermore, only individuals of privileged station in Maya society possessed the esoteric knowledge related to the writing, calendrics, and religious iconography that was incised onto certain jade objects. Ethnohistoric sources indicate that at the time of European contact the Maya separated jade into many different categories, and that simply carved and inferior quality jade, particularly in bead form, was broadly circulated among the general Maya population, while complex jade adornments that referenced iconographic motifs were restricted to the upper echelon (Kovacevich 2014). This pattern is reflected in the archaeological record of the Classic period as well; certain forms of jade were unique to elite contexts in the Classic period, such as ear flares, *ajaw* pendants, *hunal* diadems, and other objects incised with religious iconography (Kovacevich 2014; Reed and Zeleznik 2015). These detailed objects required more investment to craft and were inherently more unique than generic forms such as beads, which can be found in commoner households.

The distribution of the different forms of jade in Classic Maya contexts reflects the different exchange networks through which jade traveled. While certain basic forms of jade, like beads and hand axes, were widely traded and more easily obtained, intricately carved jade objects were produced and owned exclusively by Maya magnates. Thus jade is a useful measure of interaction networks in two ways; the presence of jade in a residential group indicates that the occupants had access to Highland trade networks either directly or indirectly,

and the type of jade object present reveals if these trade networks were exclusive or widely accessible.

Shell and Marine Wildlife Analysis

In Maya ideology aquatic wildlife are connected to the supernatural world and the creation of the universe. Maya marine imagery invokes stories from the Books of Chilam Bahlam and the Popol Vuh, which describe the watery underworld of Xibalba and the primordial sea from which life was born (Tedlock 1985; Knowlton 2012). These two places are not necessarily separate, but rather reference the watery supernatural realm of the Classic Maya where gods, ancestors, and the origins of life existed. Shell motifs are often used in water bands in Classic Maya iconography to symbolize this wet, mystical layer of the universe, particularly in scenes of sacrifice and resurrection (Schele and Miller 1986).

In the Popol Vuh the son of Seven Macaw, Zipacna, is a reference to an aquatic monster (part crocodile, part shark) that swims in the primordial sea and floats the earth on his back, underneath the heavens (Newman 2016). This cosmic layering of the heavens, earth, and primeval waters is recreated by the Classic Maya in lip-to-lip bowl caches, where shell and other marine remains are placed at the bottom of a bowl to represent the original waters from which life was born. These items are then covered with artifacts representing earth, before being capped by another bowl representing the sky (Guderjan 2004).

Given the association between bodies of water and the supernatural realm, deities often appear by emerging from aquatic motifs. In Classic Maya texts the glyph for conjuring a deity is a representation of a hand grasping a fish, referring to the Mayan word *tzak*, meaning to grab hold of or summon (Houston and Stuart 1996). Alluding to a story in the Popol Vuh when the Hero Twins transformed into fish, this glyph is interpreted as a metaphor for pulling a deity from

the watery underworld into the earthly realm (David Stuart, personal communication 2021). Similarly, in Classic iconography gods are often depicted crawling out of shells to represent their emergence from a dark, watery place.

Marine shells and spondylus in particular have been tied to the development of kingship ideology in the Late Preclassic (Freidel et al. 2002). The rare and foreign nature of spondylus shell, which was first introduced to the inner Lowlands in the Middle Preclassic, lent itself to a symbolic language of power. Marine shells became a recurring motif in royal contexts; in Maya courts spondylus shells were worn as pendants and in headdresses, conch shells were used as instruments for ceremonies, and halved shells were used by scribes as paint pots (Webster 1989), while conch-shaped plates were placed in royal tombs (Freidel et al. 2016). Chahk, the god of rain and lightning, and Maya kings are often depicted wearing spondylus ear flares and small shells strung together, sometimes referred to as tinklers for the sound that they make. Real-life versions of these carved shell adornments are abundant in high-status households at Classic Maya sites, such as Aguateca where a large quantity of shell beads and pendants were found in noble and royal residences (Inomata and Stiver 1998; Inomata et al. 2002). Some examples of the *hunal* diadem of Maya rulership are even carved from shell or framed by conch shell pieces, explicitly linking shell to status and power (Freidel et al. 2002; Freidel et al. 2016). Similarly, Maya kings took on royal names with the word for shark, such as the Tikal dynastic founder Yax Ehb Xook (First Step Shark), suggesting that these marine creatures invoked divine characteristics as well (Newman 2016).

Marine shells found at El Zotz were either procured from the Caribbean and disseminated through ports on the coast of Belize (minimum 165 km from El Zotz) that accessed inland-flowing waterways, or from the Pacific coast (minimum 380 km from El Zotz) and transported through Highland networks, up the Pasión River, to the central Peten (about 75

km from the end of the Pasion River to El Zotz) (McKillop 1996; 2010). Freshwater shells, in contrast, were likely sourced in the immediate vicinity of El Zotz, from the El Palmar *cival*. Being the largest standing body of water in the Buenavista Valley, this *cival* is the most logical source for the freshwater snails and clams found at El Zotz. Given the difference in distance between marine and freshwater shell sources, it is not surprising that marine shell was a more restricted commodity with greater social significance than freshwater shell.

Shark remains have been found at only a small selection of Lowland Classic Maya sites, including Palenque, Piedras Negras, Tikal, and Caracol, and are almost entirely exclusive to elite ritual contexts (de Borhegi 1961; Newman 2016). While the distribution of shark remains is scattered across the Maya Lowlands, the number of Classic deposits containing shark remains is very low. The scarcity of this material and the exclusivity of the contexts it was deposited in suggests that shark was only accessible to privileged circles. Sharks inhabit both Pacific and Caribbean waters, however the Caribbean would have been the closest source of sharks for sites in the central Peten.

Shell identification was done by Yeny Gutiérrez and faunal identification by Sarah Newman using taxonomic characteristics to classify each marine fragment. By comparing excavated specimens with malacology and faunal references and comparative collections from other sites, Gutiérrez determined the class, family, genus, and species of each shell when possible, and Newman did the same for applicable faunal remains. Unfortunately, a large portion of shell pieces collected in the field were too small or fragmented to be identified. These were removed from the dataset for statistical analysis, as well as any land snails.

Nonlocal Pottery Identification

In the Late Classic, individual polities developed their own unique painting styles on polychrome vessels as a means of differentiating their political identities and highlighting the artistic prowess of each palace's workshop (Reents-Budet 1994). To further stress the individuality of these objects, some artists even inscribed the rim of each vase with the provenience and original owner of the vessel. Pottery with these distinct styles and biographic information were often gifted to political influencers as a means of cementing alliances between the original owner and the recipient. Decorative vases could be given to local lineage heads as a means of strengthening bonds between the royal court and their immediate community (Yaeger 2000), or vases could be given to regional and distant leaders to cultivate diplomatic relationships (Tokovinine 2016).

Integrating elites and community leaders within a polity became particularly important in the Late Classic as more sites developed their own local hegemonies by subjugating smaller sites in the region. To strengthen bonds with their vassals, patron courts brought their dynastic traditions to their subordinated community leaders. By recreating courtly traditions and passing prestige materials on to their vassal lords, patron dynasties established a new basis of power for the elites at minor centers. In turn, provincial elites became reliant on their connections with the patron court to maintain their status locally. This strategy of inducing reliance was particularly popular with Lady Six Sky and her son K'ahk' Tiliw Chan Chaak at Naranjo. At this time in the late 7th to mid-8th century Naranjo subjugated many minor sites in the Belize River Valley and broadened its network of allies, as evidenced by the range of sites where Naranjo vases have been found (Helmke and Awe 2008). Lady Six Sky and her son gifted painted pottery to the elites at their subsidiary centers like Xunantunich and Buenavista del Cayo, where vases personally owned by the Naranjo royal family have been found (Reents-Budet 1994; Helmke

and Awe 2008). Applying this same strategy on a smaller scale, Xunantunich elites maintained their connections with local rural communities by passing on exotic prestige objects to a select group of higher-status rural households (Yaeger 2000).

Because vases and plates were small, easily transportable goods, they were an ideal gift for sending over long distances as well. Tayel Chan K'inich, an 8th century ruler at Motul de San José, was particularly well known for utilizing vases to promote himself while building distant alliances with polities across the Peten. Vases from Tayel Chan K'inich have been recovered in royal burials at Dos Pilas, Tamarindito, and El Perú, signaling that each deceased individual obtained their vase as a gift from the ambitious lord (or one of his allies) (Just 2012). Some vases were explicitly commissioned as gifts from their inception. This can be deduced from vases painted at Motul de San José, but with inscriptions naming the foreign magnates for whom the vases were intended. Such examples were commissioned by Tayel Chan K'inich for a princess of Xultun and a lord of Rio Azul (Tokovinine 2016). Similarly, lords at other courts commissioned vessels for Tayel Chan K'inich, such as a plate made at Tikal depicting the court of Motul de San José. This plate indicates that Tayel Chan K'inich's efforts to build alliances were not one-sided (Tokovinine 2016). Gift wares circulated between elites as a way of defining the relationships between them, a strategy that was particularly popular with courts at secondary centers.

According to current understandings of Classic Maya ceramic production, site-specific painting styles were executed in attached palace workshops (Reents-Budet et al. 2000; Foias and Emery 2012). Because each court controlled the manufacture of palace vessels, and because of their targeted and prestigious nature as political gifts, this variety of pottery was rare and exclusive. However, region-specific ceramic styles also existed that were widely dispersed across the Lowlands through accessible trade networks as opposed to closed diplomatic

systems (Rands et al. 1983). These items were still carefully decorated, high-fired serving vessels that operated as status symbols, but they were manufactured at numerous workshops across a broad geographic range (Rands et al. 1983). As a result fine pastes were more common than palace-specific varieties, and appeared in non-elite as well as elite households. Such examples of this include the fine paste types produced in the Usumacinta region and Tabasco plains, which were widely distributed throughout the Peten and Belize in small quantities (Rands et al. 1983). The distribution and quantity of a ceramic type outside of its main production area indicates how exclusive and thus prestigious that type was, and the mechanisms that might have circulated it.

Local imitations of exotic ceramic types also appear in the ceramic assemblage at El Zotz. More often than not imitation ceramics take the form of mock fine pastes, which can be rooted out from true fine pastes based on visible temper in the paste and unusual paste colors, such as brown. Attempts to copy broadly circulated fine wares were common in the central Peten. In contrast, attempts by artists to copy the painting styles of foreign courts are not well known in the Classic lowlands. Stylistic and chemical studies of pottery does note that secondary centers sometimes replicated the painting styles of the palace workshops at their primary center (Reents-Budet et al. 2010; Barrios 2010; Reents-Budet et al. 2000). However, stylistic analysis suggests that the foreign painting styles identified at El Zotz are genuine (unfortunately chemical analysis was not in the budget to provide confirmation).

The site-specific styles represented in the ceramic assemblages at the Acropolis, the Northwest Courtyard, Las Palmitas, and La Luna will indicate the political ties of each lineage group. In contrast, less-exclusive foreign types that were circulated broadly through trade networks correspond to general geographic regions rather than single sites. These different styles were identified using type-variety analysis. Political gifts are identified through polity-

specific varieties and can also be identified with inscriptions when present. In contrast, decorative styles pertaining to general regions are distinguished on the type level.

Acropolis External Networks

Obsidian

Unfortunately, the obsidian record from the Acropolis was incomplete, so a total count or weight of obsidian cannot be provided. I was not able to test any obsidian from the Acropolis using pXRF, so all of the Acropolis obsidian data stems from Hruby's study (2018). This dataset does not allow for proportional comparisons or a diversity analysis, but it does indicate the range of sources from which the El Zotz royal family obtained obsidian. All three samples of obsidian tested from Late Classic contexts at the Acropolis were sourced from El Chayal, while the remaining four samples from the terminal Classic originated from Ixtepeque and San Martín Jilotepeque in the Maya Highlands, and from Pachuca and Zaragoza in Central Mexico, east of the Valley of Mexico, approximately 1,250 km and 1,120 km from the central Peten respectively (Figure 91) (Hruby 2018).

Jade

The highest quantity of jade in a Late Classic elite residential complex at El Zotz was found at the Acropolis, a total of six specimens. Five of these pieces were found in the Terminal Classic ritual deposit that was spread across the Acropolis. Given that the ritual deposit was composed of carefully selected domestic refuse, the jade objects from this context were curated to represent the daily activities of the El Zotz royal family (Newman 2015). These objects included four axes and one jade incrustation of the kind set in teeth. Axes are an example of generic jade forms in Mesoamerica which could have been produced by non-elite individuals

and circulated through open trade networks (Kovacevich 2014). Conversely, jade incrustations were set into teeth as a sign of high social status and wealth, and referenced sacred breath (Taube 2005; Scherer 2015). These adornments were exclusive to the royal family at El Zotz and were used only in restricted spheres.

Another jade adornment was uncovered in a dedication cache in the basal platform of the pyramid attached to the Acropolis (Str. L7-11) (Figure 92). This jade piece was a fragment of a pectoral ornament incised with a small face. The jade ornament was part of a cache housed inside two polychrome bowls set lip-to-lip in a layer of construction fill (Leiva et al. 2008). As opposed to the jade axes found in the termination deposit, which denoted domestic activities, this jade ornament was intricately incised with the face of an individual wearing a headdress with a circular embellishment at the center. Although it is unclear if the figure on this pectoral represents a ruler or a god, carved jade adornments regularly refer to wind, rain, and sacred breath (Taube 2005). Similar to the jade incrustation, this object would have been worn by Maya royalty to signify their own supernatural connection to the holy, animate forces of wind and rain. Such an item would have been carved by elite artisans and distributed through exclusive spheres to be worn by Maya elites for ceremonial events. The prestigious nature of this jade ornament is underlined by the woven mat pattern on one of the bowls that held the ornament. In Maya visual culture mat motifs refer to the mat of rulership, and this pattern on a vessel suggests the original owner had great political power.

Marine Shells and Animals

The Acropolis yielded the largest shell assemblage of all the Late Classic elite residences at El Zotz. This is largely due to the termination deposit of midden materials in the Acropolis. In this deposit over half of the shells found were from distant marine and brackish

sources, a relatively high proportion of foreign shells in a single context. Comparatively, imported shells occurred far less frequently in normal fill contexts at the Acropolis.

Table 32: Context from which imports were retrieved.

	Acropolis	Northwest Courtyard	Las Palmitas	La Luna
Ceramics	**39**	**9**	**23**	**122**
Fill	30	9	18	46
Household Refuse			5	9
Ritual	9			67
Jade	**6**	**1**	**1**	**2**
Fill			1	2
Ritual	6			
Floor assemblage		1		
Obsidian	**7**	**67**	**34**	**49**
Fill	7	56	8	22
Household Refuse			19	23
Ritual		2	1	4
Surface		7	5	
Floor assemblage		2		
Unknown			1	
Shell	**14**	**6**	**2**	**12**
Fill	1	6		4
Household Refuse			2	
Ritual	11			8
Surface	1			
Unknown	1			

The only primary deposit consisting of shell was from the previously mentioned cache in the basal platform of Str. L7-11, the ritual shrine of the Acropolis complex. The cache included one perforated conch shell pendant as well as 47 shark teeth placed underneath a jade ornament and muscovite in a polychrome bowl, covered lip-to-lip by another bowl (Figure 93-94) This offering is a perfect example of caches that reproduce the cosmos (Guderjan 2004). In this

case the conch shell and shark teeth represent the primordial sea from which life was born, layered underneath the earth, as represented by a floral jade ornament and mineral plaques.

A total of 72 shell fragments could be classified by their source environment out of the 94 recovered the Late and Terminal Classic iterations of the Acropolis. Within this assemblage 79.2% of the shell fragments were from freshwater environments, while 18% were imported from ocean environments and 2.8% came from a brackish water source (Figure 95). The marine shell was composed primarily of Olive snails (Olividae), in addition to True Conchs (Strombidae) and Turbinellidae, and two brackish shells identified as Basket Clams (Corbiculidae). All marine species that could be attributed to a specific geographic region were sourced from the Caribbean Sea, most likely from the coast of Belize.

The shark teeth from Str. L7-11 would have most likely arrived through the same exchange networks as marine shell. Analysis by Sarah Newman found the teeth belonged to the upper jaw of a *Carcharinus* (or requiem) shark (Newman 2015). Most North American species of this genus inhabit the Caribbean as opposed to the Pacific Ocean, suggesting that these shark teeth were most likely acquired through Belizean ports. However, the scarcity and context of shark remains in the inland Lowlands demonstrates how difficult it was to acquire shark teeth.

Nonlocal Pottery

Of the 19.55 kg of Late and Terminal Classic prestige ceramics analyzed from the Acropolis, only 1% was clearly produced outside of El Zotz. Thirty-six sherds represented distinctive ceramic types and varieties originating from distant sites. Imported sherds dated to the end of the Late Classic and the Terminal Classic, and were primarily found in the Terminal Classic termination deposit spread around the Acropolis.

The vast majority of the imported sherds from the Acropolis (86.8%) were fine orange wares from the Altar group. Beyond this, there were fragments of Sahcaba molded-carved (7.9%), one sherd of Tres Naciones fine gray (2.6%), and two sherds of the Ik' variety (2.6%) from Motul de San José (Figure 96-98). Altar fine orange and Tres Naciones fine gray were manufactured at a number of sites along the upper Usumacinta River feeding into the Pasión drainage, and were traded broadly across the Petexbatun, central Peten, and Belize (Figure 99) (Rands et al. 1983). Similarly, Sahcaba and other molded-carved vessels were widely distributed in small quantities across the central Peten, in part due to the new development of mold-making technologies which lowered labor costs and facilitated the mass production of finely decorated vase. In contrast, Ik pottery was uniquely produced at the court of Motul de San José and distributed through restricted political networks (Just 2012). When considering the different foreign type-varieties represented in the Acropolis assemblage, the assemblage is notably diverse with an index of 0.82 (d = [4-1]/ln38) based on Margalef's Richness Index (see Chapter 6). This means that the royal family living at the Acropolis possessed an assorted range of vessels imported from other sites.

Summary of External Networks at the Acropolis

The royal family of the Pa'ka'n dynasty possessed the largest and most diverse collection of imported objects in the core of El Zotz. Prestige commodities manufactured within the central Peten were brought to the Acropolis from Motul de San José to the south and from the eastern Buenavista Valley. Beyond the central Peten, luxury goods and functional raw materials were shipped up the Pasión River to El Zotz from the Guatemala Highlands and from the upper Usumacinta region. Furthermore, marine products were brought from the Belizean shores to the Acropolis via coastal ports leading into east-west river routes. Beyond the Maya

region, raw obsidian was procured from sources east of the Basin of Mexico and then shipped along the Mexican shoreline until reaching the east coast, where inland waterways were used to access the central Peten, similar to those rivers used to transport ocean commodities.

Through accessible trade spheres the El Zotz royal family acquired many widely circulated functional materials, namely obsidian, and luxury goods, including simple jade forms, marine shell, and fine paste and mold-made ceramics. Although such luxuries were status symbols, they were widely owned in small quantities by elites and non-elites alike across the Maya Lowlands in the Late and Terminal Classic. Notably however, the royal family still possessed the highest quantities of openly circulated prestige commodity within El Zotz.

Conversely, the residents of the Acropolis also cultivated contacts within restricted exchange circles where merchants and court representatives supplied singular exotic items that were either naturally difficult to obtain or tightly regulated by palace workshops. Once deposited in the archaeological record, these items become indices of political relationships and privileged trade connections. Pa'ka'n royals negotiated diplomatic relationships with Motul de San José in the Late Classic, as evidenced by a fragment of an Ik style vase, which would have been gifted to the Pa'ka'n royal family by the court of Motul de San José or one of its allies. Restricted circles of distribution also supplied the royal family with shark teeth from the coast of Belize, and jade adornments from the Highlands referring to sacred natural forces.

The nonutilitarian imports at the Acropolis were primarily found in ritual deposits, namely the cache placed inside the base of temple Str. L7-11 in the Late Classic, and the termination deposit packed around the Acropolis in the Terminal Classic. This suggests foreign objects were intentionally selected as symbols for religious ceremonies. Possibly it was considered a greater sacrifice to offer up imported goods given the extra work required to obtain them in the first place. Furthermore, the alien and seemingly intangible origins of these items might relate to the

otherworldliness that the Maya tried to recreate in their own religious spaces and sacred offerings. In this sense the royal family exploited their ties to the unfamiliar outside world to reinforce their own divine identity at home.

Northwest Courtyard External Networks

Obsidian

A total of 175.4 g (207 fragments) of obsidian was unearthed at the Northwest Courtyard. Of this collection 66 pieces were recorded by the author using pXRF and one piece was analyzed in the previous study by Hruby (2018). Given that only 5 of the pieces of obsidian analyzed came from in situ deposits at the Northwest Courtyard, the vast majority of obsidian was retrieved from building fill. Notably, most obsidian came from shallower lots attributed to the Terminal Classic.

The sampled obsidian from the Northwest Courtyard was imported from all the nearby volcanic sources in the Guatemala Highlands. Of the 67 pieces sampled with the Tracer 5i pXRF 86.6% originated from El Chayal, 10.4% from Ixtepeque, and 3% from San Martín Jilotepeque (Figure 91). Even in Terminal Classic contexts alone El Chayal dominated the assemblage. The family in the Northwest Courtyard obtained obsidian from a limited range of sources, as indicated by Margalef's Richness index (d = [3-1]/ln67), which produced a 0.47 index.

Jade

Only one jade item, a hand axe, was recovered during excavations at the Northwest Courtyard. This axe was in a Terminal Classic assemblage left on the final floor of Str. L7-17. The assemblage was a dense assortment of household artifacts, including ceramic sherds,

obsidian and chert debitage, shell fragments, and animal bone (Newman and Menéndez 2012). Given its simple form, the axe did not require specialized knowledge of Maya iconography or text to produce and was not specifically for ritual use. Considering these facts, the axe was most likely distributed through open exchange networks.

Marine Shell

A sample of 663 shells was excavated from Late and Terminal Classic contexts in the Northwest Courtyard, although only 39 pieces could be classified according to their source environment. The very high number of total shell in this operation may be due to differences in collection methods by the archaeologists at this operation versus other archaeologists on the project (mainly the inclusion of land snails) (Thomas Garrison, personal communication 2021). Almost all of the shell at the Northwest Courtyard was recovered from Late and Terminal Classic building fill, with the exception of one freshwater shell from the assemblage of domestic artifacts left on the final floor of Str. L7-17.

Eighty-two percent of the classified shell from the Northwest Courtyard was from freshwater environments, while 18% was imported from marine environments (Figure 95). The marine shell assemblage from the Northwest Courtyard consisted of two types of sea snail (Olividae and Marginellidae), one Ark Clam (Arcidae), and one Tellin (Tellinidae). Only two of these shell fragments presented enough detail to pinpoint their place of origin; both specimens came from the Caribbean, suggesting the shells were acquired by way of ports In modern day Belize.

Nonlocal Pottery

From the excavations at the Northwest Courtyard, 2,132 g of prestige pottery were analyzed. Within this weight 2.2% corresponded to non-local types, 9 sherds by count. All sherds were recovered from Terminal Classic building fill.

All imported specimens were pieces of Altar fine orange, which originated from the upper Usumacinta River region (Figure 99). The distribution of Altar ceramics and their various chemical compositions indicate that the production of this type was not restricted, and it was widely traded (Rands et al. 1983). Given that only one imported ceramic type was present, there was no diversity of nonlocal pottery ([1-1]/ln9 = 0).

Summary of External Networks at the Northwest Courtyard

The quantity and range of imported materials recovered from the Northwest Courtyard were limited. Although the presence of jade, saltwater shells, and fine orange vessels demonstrates that the residents of the Northwest Courtyard had access to long-distance exchange networks and the means to acquire precious items, the scope of said networks and the exclusivity of said items was minimal. Obsidian was sourced only from the closest sources (the Guatemalan Highlands) and pottery only from the nearest major river route (the upper Usumacinta to the Pasión River). Where it was possible to distinguish between different spheres of circulation the data indicates that residents of the Northwest Courtyard only participated in the most accessible forms of foreign trade. The jade axe from the Northwest Courtyard was generic and lacked any iconography or decoration so it most likely arrived at El Zotz through non-exclusive modes of production and distribution. Similarly, Altar fine orange is one of the most frequently imported types found in the Peten in the Late and Terminal Classic, and studies of its paste composition indicate that Altar was manufactured at many workshops along the

Usumacinta River (Rands et al. 1983), making it more obtainable. Furthermore, the low number of jade, marine shell, and foreign pottery compared to the neighboring Acropolis is indicative of the means of the family in the Northwest Courtyard. The people that lived at the Northwest Courtyard focused on obtaining functional foreign materials if any, i.e. obsidian, over exotic luxury items.

Overall, it appears that the lineage group that lived in the Northwest Courtyard had only limited connections outside of El Zotz. These people only utilized contacts that worked in the closest, most easily accessible trade routes, namely the Pasión River, which accesses the upper Usumacinta region and Guatemala Highlands, and Belize rivers, which lead to the coast. The residents of the Northwest Courtyard were either not privy to the most restricted, elite spheres of long-distance exchange, or they chose not invest in highly prestigious exotics. The imports that this family did focus on procuring were functional rather than decorative (i.e. obsidian), and the few foreign luxuries that the family acquired in multiples were not very diverse. These results paint the picture of a lineage group that, although directly linked to the Pa'ka'n court, was not particularly well connected outside of El Zotz. Furthermore, the extended family appears to have possessed limited expendable resources to put towards nonutilitarian commodities. This is consistent with a non-elite family involved in the court. If the people at the Northwest Courtyard were not involved in governing or politics, then they logically would have fewer connections to other governments or outside political officials.

Las Palmitas External Networks

Obsidian

In sum, 54.5 g (54 fragments) of obsidian were recovered from excavations at Las Palmitas. Most of this assemblage was collected from a Terminal Classic midden off the side of

the palace patio group platform, indicating the obsidian fragments were refuse from the Terminal Classic activities of the noble family at Las Palmitas. Given the comparatively small obsidian assemblage from Las Palmitas, the sample of obsidian analyzed using pXRF was relatively low, but proportionally representative of the total assemblage (33 pieces). This number was augmented by one additional flake from Hruby's study, yielding a total sample size of 34 (2012).

The majority of the obsidian at Las Palmitas, regardless of date, originated from El Chayal (76.5%). Surprisingly, none of the obsidian tested came from Ixtepeque, instead 20.6% was sourced from San Martín Jilotepeque and the remaining 2.9% was matched to Otumba in central Mexico, east of the Basin of Mexico, approximately 1260 km from the central Peten (Figure 91). The diversity of sources represented in the obsidian assemblage at Las Palmitas was relatively low, with a richness index of 0.57 (d = [3-1]/ln34).

Jade

A single fragment of jade was located in the palace patio group, however the shape of the fragment was unspecific in reports, suggesting it does not denote any specific function. Furthermore, the location of the jade fragment in loose soil in front of Str. M3-9 does not suggest it was deposited intentionally as part of a cache or midden. The lack of any specific carving or incising on this piece indicates it was most likely from a standardized, simple jade form that was broadly accessible through Lowland trade networks.

Marine Shell

The shell assemblage from Las Palmitas was collected almost entirely from household refuse and building fill off of the north edge of the palace patio group platform. Unfortunately

only 10 of the 20 fragments found could be attributed to specific environs. Of these 10 shells 80% were freshwater and 20% marine shell (two olive snails) (Figure 95). Unfortunately, Olividae are widely dispersed snails, so it was not possible to say if the Olividae originated from the Caribbean or Pacific coasts.

Nonlocal Pottery

Of the 4,327 g of high-value pottery analyzed from Las Palmitas 2% was evidently imported. Foreign ceramic types were represented in 23 sherds from the overall assemblage. Most of these were found in building fill, although a few fragments of Altar fine orange were also found in the midden off of the palace patio group platform, confirming the use of these vases within the palace.

Of the foreign types found at Las Palmitas, the predominant group was Altar fine orange (47.9%), followed by Tres Naciones fine gray (26.1%), Chablekal fine gray (8.7%), Sahcaba molded-carved (8.7%), and the Ik' variety of Zacatal Crema (8.7%) (Figure 101-103). Fine wares were likely obtained through exchange with the upper Usumacinta River region (for Altar and Tres Naciones vessels) and the lower Usumacinta River region (for Chablekal vessels) respectively. Sahcaba molded-carved vessels were manufactured closer to El Zotz. Given the distribution of this same molded vase at Tikal, Yaxha, and Uaxactun, it seems this specific object was most likely produced in the area around Tikal and transported to Las Palmitas through the Buenavista Valley. All of these ceramic types were circulated in open networks, so it is reasonable that the people at Las Palmitas could have acquired the imported vessels directly from merchants. Exclusive Ik style ceramics were acquired either through diplomatic relationships with Motul de San José or through the Pa'ka'n royal family who could have regifted the vases to nobles at Las Palmitas. Even if the Ik' vases were not received directly from the

court of Motul de San José, just the display of such items would have created the impression to guests that the elites at Las Palmitas were worldly and well connected. The assemblage also indicates that the residents of Las Palmitas owned the widest variety of imported ceramic types, with a diversity index of 1.28 (d=[5-1]/ln23).

Summary of External Networks at Las Palmitas

When examining the obsidian, jade, and marine shell discarded at Las Palmitas, the quantities of these materials were considerably low and the external networks represented were limited for an elite household. Only one piece of obsidian came from outside the Maya Highlands, beyond the usual volcanic sources of the region, and only two fragments (representing 1 species) of marine shell were present. Moreover, obsidian from Ixtepeque was completely absent despite being the second most common type of obsidian at every other complex. Notably, all of these types of items are imported from the east coast. The dearth of imports from this coastal route indicates that the people at Las Palmitas lacked strong connections to the seafaring merchant networks to the east. Moreover, the only fragment of jade from Las Palmitas was not decorated or of a unique form, so there is no evidence that the owner engaged in restricted spheres of circulation. Overall, the low quantity and diversity of obsidian, shell, and jade at Las Palmitas is indicative of modest engagement in long-distance exchange.

In contrast, the assemblage of decorative serving vessels at Las Palmitas included an array of foreign types that were traded in both public and selective circles, from an assortment of geographic locations. From within the central Peten, Ik style sherds were brought from the palace workshops of Motul de San José, and a Sahcaba molded-carved vase was transported from the east end of the Buenavista Valley to El Zotz. These sherds represent relationships

(real or contrived) between Las Palmitas and its neighbors in accessible and exclusive spheres, indicating diplomatic ties to Motul de San José. From more distant regions, the residents of Las Palmitas participated in only broad trade networks, as evidenced by fine orange and grey paste sherds of various types. Fine wares from Las Palmitas were manufactured at sites along the entire Usumacinta River, reaching from the Tabasco Plains to the Pasión drainage. Thus, it seems that the extended family living at Las Palmitas fostered good relations with nearby courts while tapping into wider exchange networks locally and to the south to acquire prestige items.

The marked difference between the foreign pottery collection at Las Palmitas and other imported materials is suggestive of a decision by Las Palmitas lineage members to broaden their horizons and connections beyond El Zotz through one particular medium. Interestingly, the production and dissemination of palace workshop ceramics was an especially popular political strategy with less powerful polities like Motul de San José, Buenavista del Cayo, Xultun, and El Zotz (Reents-Budet et al. 2000; 2010; Houston 2008; Just 2012; Krempel and Matteo 2012). It may be that this medium was the most effective for broadcasting political identities, whether that identity was the producer's or the recipient's, hence the investment in such pieces at Las Palmitas.

Vases were the only objects that the residents of Las Palmitas obtained through restricted spheres of circulation. It is worth noting that the elite-exclusive items at Las Palmitas were produced solely in the central Peten, suggesting that the people at Las Palmitas only had access to the most privileged networks in their immediate region. Beyond the central Peten the family at Las Palmitas only participated in public exchange systems, although within these systems the family had contacts connected to distant production sites, as far as the Tabasco plains and Central Mexico.

La Luna External Networks

Obsidian

The obsidian from La Luna was largely recovered from household refuse and refuse repurposed as building fill in Late and Terminal Classic contexts. Additionally, a few pieces of obsidian were mixed into the sizeable lithic deposit located off of the northwest corner of Str. T1-11. In total these contexts yielded 369 g (150 pieces) of obsidian. All of the compositional analysis of obsidian from La Luna comes from the current study.

The obsidian at La Luna was obtained from a wide range of sources. Of the 49 pieces of obsidian recorded using pXRF 46.9% came from El Chayal, 28.6% from Ixtepeque, and 18.4% from San Martín Jilotepeque. Additionally, small quantities of obsidian came from east of the Basin of Mexico, from Pachuca (~1260 km away) and Tulancingo (~1230 km away), and from one source west of the Basin of Mexico, Ucareo (~1460 km) (Figure 91). An estimation of diversity using Margalef's Richness Index where d = (6-1)/ln49 produced an index of 1.28, notably higher than Las Palmitas and the Northwest Courtyard.

It is interesting that the percentage of obsidian from El Chayal at La Luna was less than 50%, which is unusual for a Late Classic residence. Instead the obsidian assemblage was very heterogenous, with a considerable portion coming from Ixtepeque and San Martín Jilotepeque.

Jade

Two jade items were identified at La Luna. A jade bead and a small axe fragment were located in the fill of Str. T1-11 (Figure 104). Neither of these objects were decorated with iconography and both were carved into simple forms, suggesting that they were acquired through general trade networks rather than exclusive elite systems.

Marine Shell and Aquatic Invertebrates

A small quantity of shell was recovered from La Luna, but all fragments could be attributed to specific environments. Of the 25 shell fragments found, 10 were from two Late Classic looted burials in the main patio group. One marine and one freshwater shell were found in the backfill left by looters in an illicit trench that exposed Burial 34 in Str. T1-10. Similarly, eight marine shells came from the backfill in a looters trench that tore through Burial 35 in Str. T1-7. Of the shells from Burial 35, seven were perforated beads likely strung together as a necklace or other form of jewelry. The remaining shell was found in Late Classic building fill, and the Late to Terminal Classic midden behind Str. T1-3.

Overall, 72% of the 25 shells were from a marine environment, while the remaining 28% were from freshwater (Figure 95). Although this is a small sample size, it is notable that the majority of the assemblage was composed of imported shell rather than nearby freshwater resources. Furthermore, at least one of the shell species found at La Luna originated from the Pacific coast. The marine shells were primarily Olividae, but also included Strombidae, Cassidae, Harpidae, and one piece of coral (Figure 105). Notably, coral specimens are rare in the Peten, as are Pacific shells in the central Peten.

Surprisingly, despite the much larger shell assemblages from the royal palace and the adjacent Northwest Courtyard, more marine shells were recovered from La Luna than any other residential complex. Even more unusual is the fact that La Luna is the only residential complex where the ratio of imported shell outweighs the ratio of local shell, and that La Luna is the only complex to yield a shell from the Pacific Coast. These observations allude to an unusually high investment in marine imports by the extended family that lived at La Luna. It is possible that this focus was another strategy by the sub-royals at La Luna to appear intimately acquainted with the supernatural world, playing up ideological symbols to craft an identity as spiritual magnates.

Nonlocal Pottery

Approximately 3.7% of the 20,037 g of prestige pottery analyzed from La Luna was definitively non-local in origin. This subset consisted of 122 sherds, which represented uniquely identifiable foreign types and varieties. These imports appeared in a variety of primary contexts in addition to building fill. In the early Late Classic, a few foreign sherds were tossed into the chultun beneath Str. T1-11, along with a load of other pottery and domestic refuse to terminate the chultun. Soon after the sealing of this chultun a feast occurred, the remains of which were used as fill for the construction of Str. T1-11. Late Classic imported plates and vases were amongst these vessels used to serve food and drink at the feast, before being tossed into building fill. In the second half of the Late Classic a vase from the Usumacinta region was placed in a burial in Str. T1-10. The ritual contexts of all these sherds suggests that foreign pottery was thought of as an ideal offering, suitable for sacred activities. Moreover, all foreign type-varieties identified in ritual contexts were also located in the Late-Terminal Classic midden behind Str. T1-3, showing that the people at La Luna used imported dishes in their daily lives.

The majority of foreign sherds represented a unique variety originating from the palace workshop(s) of El Perú-Waka' (87.7%), followed by vessels of the palace school at Altun Ha (5.7%) (Reents-Budet 1994; Helmke et al. 2018; Keith Eppich personal communication 2017). Beyond this 4.1% of imports belonged to the Altar fine orange group from the upper Usumacinta region, 1.6% to the Ik' variety from Motul de San José, and 0.8% to the Chablekal fine gray group from the Tabasco Plains (Figure 106-109). Palace schools sherds from El Perú-Waka', Altun Ha, and Motul de San José denote the unique offerings that were gifted to the La Luna nobility, directly or indirectly, by political leaders in order to forge relationships. While these pieces represent restricted spheres of circulation, fine wares from the upper and lower portions

of the Usumacinta reveal the public long-distance trade networks with which the family at La Luna engaged (Figure 99). Surprisingly, the majority of foreign ceramics found at La Luna stem from exclusive exchange circles rather than open ones. This assemblage as a whole yielded a wide range of foreign type-varieties, with a richness index of 0.83 (d=[5-1]/ln122). This degree of heterogeneity within the assemblage of imported vessels is only slightly above the Acropolis itself. Thus the lineage group living at La Luna owned a significant variety of foreign ceramic vessels, on a level akin to the royal family at El Zotz.

Summary of External Networks at La Luna

Excavations at La Luna yielded a wide variety of foreign goods from a range of locations, which were traded in both accessible and constricted circles. Within the central Peten the people at La Luna appeared to have had diplomatic relationships with the court of El Perú-Waka', Altun Ha, and Motul de San José, as evidenced by unique pottery painted in the style of those courts' attached workshops. These different styles of painted pottery indicate that the residents at La Luna honed specific political relationships within the central Peten, and were active members of restricted trading spheres that branched outside of the Peten to northwestern Belize. On top of this, the people at La Luna were able to acquire rare marine commodities like coral from the Caribbean and shell from the Pacific, which don't appear in households anywhere else at El Zotz in the Late and Terminal Classic.

More common exotics arrived at La Luna through public trade networks. Five different shell species were imported from the Caribbean. Fine wares manufactured at multiple sites in Tabasco Plains region and the upper Usumacinta drainage were transported up the Pasión river and into the central Peten to be marketed as status symbols to the public. The Pasión River also fed into the Maya Highlands, where jade and the majority of the obsidian at La Luna were

sourced, and where trade routes carrying Pacific shells from the southern coast intersected with Lowland networks.

Beyond the Maya region, a number of pieces of obsidian at La Luna were transported from further afield, in Central Mexico. Obsidian at La Luna was shipped and traded from three different volcanic quarries around the Basin of Mexico: Tulancingo and Pachuca from east of the basin and Ucareo from west of the basin.

Interestingly, La Luna housed the highest number of imported items of all the elite Late Classic residences at El Zotz. Moreover, these imports represent the greatest geographic range of sources at El Zotz in a Late Classic residence. The vast distances that items traveled before arriving at La Luna, and the variety of sources from which these items came, suggests that the residents of La Luna were very well connected with long-distance trade networks, even more so than the Pa'ka'n royal family. The secondary elites at La Luna were the only individuals who owned unique exotics from Altun Ha, the Pacific Ocean, and the west edge of the Basin of Mexico. Finally, the types of objects that the extended family at La Luna owned indicates that the family was privy to elite-exclusive exchange circles as well as open trade networks, and participated heavily in both.

It is unusual for ancient Maya sub-royals to be better connected than their royal superiors in the local court. The situation at La Luna is thus unique, and may reflect specific strategies undertaken by the lineage group at La Luna to compete within the local aristocracy. Similar to the nobility at Las Palmitas, the non-royal elites at La Luna sought a diversity of connections beyond El Zotz. However, the family at Las Palmitas was only able to execute this strategy on a limited scale, through decorative serving vessels as the chosen medium. Conversely, the family at La Luna invested in external networks to a much greater degree, acquiring foreign commodities of every type from any source possible. The family did not

discriminate between accessible and inaccessible goods, but sought imports from all spheres of circulation regardless of exclusivity. As a result, the collection of possessions at La Luna advertised a rich web of trade and diplomatic relationships.

Given the quantity and diversity of materials, the people at La Luna are the strongest candidates for a merchant group at El Zotz. Little is known about the long-distance merchants of the Classic period, but they would have certainly worked closely with their king and with other courts to bring in highly coveted merchandise. Conversely, even if the external relationships implied by imports at La Luna were more of a façade than a reality, the presence of so many imported items from so many places created the appearance of a worldly and well-connected lineage group at La Luna.

External Networks between Courtly Lineages at El Zotz

Comparative Summary of Imports

The data above is used to extrapolate the different external networks that each aristocratic lineage at El Zotz had access to and utilized (Table 33). Obsidian was the most commonly owned foreign commodity in Classic Maya households. This was due to its functional properties as an extremely sharp mineraloid that could be easily worked to slice through materials, and that existed in mass quantities in the Maya Highlands. Obsidian was a standard household good regardless of status in Maya society, therefore its presence and quantity in noble dwellings at El Zotz is not telling on its own. However, because obsidian could not be obtained locally, and because the Classic Maya acquired their obsidian from a variety of sites, the sources of obsidian from around El Zotz demonstrate to which trade networks each local elite family was connected.

Table 33: Diversity of sources represented by imported goods at each residential complex. Asterisks denotes totals recorded in a biased survey.

Imported Material	Source	Acropolis	Northwest Courtyard	Las Palmitas	La Luna
Ceramic	Upper Usumacinta region	34	9	17	5
Ceramic	Tabasco Plains			2	1
Ceramic	Motul de San José	2		2	2
Ceramic	El Perú-Waka'				107
Ceramic	Altun Ha				7
Ceramic	Eastern Buenavista Valley	3		2	
Marine	Caribbean Coast/ND	66	9	2	17
Marine	Pacific Coast				1
Obsidian	El Chayal	3*	58	26	23
Obsidian	Ixtepeque	1*	7		14
Obsidian	San Martín Jilotepeque	1*	2	7	9
Obsidian	Pachuca	1*			1
Obsidian	Tulancingo				1
Obsidian	Ucareo				1
Obsidian	Otumba			1	
Obsidian	Zaragoza	1*			
Jade	Motagua Fault Zone	6	1	1	2
Count of Sources		9	6	9	14
Sum of Import Specimens		--	86	60	191
Margalef's Richness Index		--	1.12	1.95	2.48

Residents in the Northwest Courtyard only owned obsidian from the closest volcanic sources, and within those sources most came from the most popular site of the Classic period, El Chayal. The extended family at Las Palmitas similarly obtained most of their obsidian from El Chayal, but did acquire a small amount of obsidian from sources east of the Basin of Mexico. Families at the Acropolis and La Luna procured obsidian from more locations, including multiple volcanic sites east of the Basin of Mexico, even from one site west of the Basin of Mexico. This

range of volcanic source diversity is reflected statistically, where the obsidian assemblage from the Northwest Courtyard is the least rich, the assemblage from Las Palmitas was slightly more diverse, and the assemblage from La Luna was the most diverse. Although the richness of obsidian from the Acropolis could not be assessed statistically, pieces from Central Mexico demonstrate the great reach of the royal family at El Zotz. Although the families in the Northwest Courtyard or Las Palmitas did not enjoy similar range, the secondary elites at La Luna worked with merchant networks that reached even more obsidian quarries than the royal family of El Zotz.

Jade, though also located in the Maya Highlands, was far less common than obsidian in Classic households. As a harder and rarer material than obsidian, jade required significantly more labor and skill to procure and work, while its coloring lent itself to cultural symbolism relating to maize, breathe, wind, and moisture. Although jade overall was not exclusive to noble and royal households, some jade objects were strictly owned by elite courtiers. In contrast, the most common forms of jade, such as beads and small hand axes, could belong to almost any household, though typically in low quantities.

Only the royal family at El Zotz possessed the most sacred forms of jade which bore iconography invoking the forces of wind, rain, and life essence. Furthermore, the royal family owned the highest quantity of jade of all the Late Classic lineages around El Zotz. Outside of the Acropolis jade rarely appeared, and when it did it appeared in generic forms that were openly circulated. This distinction draws a symbolic boundary between Pa'ka'n royalty and the sub-royals who orbited around them; only royals channeled and controlled the sacred forces of life and nature. The distribution of jade also reflects a real world boundary; all courtiers could obtain small jade pieces, but only the royal family at El Zotz had access to the most restricted circles of production and trade that provided consecrated adornments.

The exchange of marine items was similar to jade, in that small quantities of common items like shells could be found in almost any household in the Maya Lowlands, but relatively large quantities and rare items were considerably more difficult to obtain (Figure 93). Most oceanic objects found in the central Peten came from the Caribbean, most likely from the nearest coastal towns along the coast of Belize, but a few items from the Pacific Ocean also made their way up into the central Peten. Remains of ocean animals were notably negligeable at Las Palmitas, and appeared in higher quantities at the other residential complexes. Excavations at the Northwest Courtyard yielded about half as much saltwater shell as was found at the Acropolis and La Luna. This suggests that although each lineage group had some access to Caribbean trade networks, the royal family of El Zotz and the noble family at La Luna were the most invested in attaining marine symbols. This observation is underlined by the rare Caribbean specimens also found at the Acropolis and La Luna (shark teeth and a coral skeleton).

Shells and other objects from the ocean were pieces of a world beyond El Zotz, both literally and metaphorically. On a social level, these items represented the connections of the Pa'ka'n royal family and the La Luna nobility outside El Zotz, as well as their economic or political prowess. On a cosmological level, marine referents signaled how close these two lineages were to the holy, watery realm from which sprang the origins of life and the gods themselves (Tedlock 1985; Schele and Miller 1986). Thus these symbols of the sea projected the supernatural ties of the owner.

Decorative serving vessels were a particularly portable and highly circulated good among the Classic Maya. Type-varieties reveal where vessels were produced, while distribution patterns and the presence or absence of personalized texts reveals the specificity of each ceramic type-variety, creating a distinction between openly accessible styles and those that

were selectively disseminated. These serving vessels would have been used at feasts and during ceremonies, where their visibly distinct styles could broadcast their unique places of origin to ritual participants and audiences. The owners of finely decorated serving vessels could essentially curate their political identity through pottery, using imported pieces to tout their wide reach across the Lowlands and their personal relationships with foreign political leaders.

Among the areas investigated to date, the lineage group at La Luna dominated the foreign ceramic trade at El Zotz, possessing the largest quantity of imported vessels from the widest variety of sources. Moreover, the aristocrats at La Luna were the only elite courtiers that obtained more pottery from restricted social spheres than from open market trade. For these reasons the family at La Luna is a strong candidate for a merchant group. Some of the people at La Luna may have worked as part- or full-time in long-distance traders, visiting foreign royal courts to acquire restricted goods from other palace workshops. Little is known about the Classic Maya merchant occupation, but traders specializing in the exchange of restricted goods would have been necessary for aristocrats to control the flow of elite, high-culture items.

Every other complex in this study relied primarily on accessible trade systems to import pottery, particularly fine orange wares from the upper Usumacinta, which dominated the foreign assemblages at the Acropolis, Northwest Courtyard, and Las Palmitas. Though their assemblage was considerably smaller, the nobility at Las Palmitas invested in foreign pottery more than any other import, as indicated by the diversity of their collection. Though larger, the assemblage at the Acropolis was actually less rich than that of Las Palmitas, while the collection of imported vessels at the Northwest Courtyard was the smallest and had no variety whatsoever. It is interesting that the courtier households furthest from the royal family were the most invested in obtaining serving vessels from different places, seeking out statement pieces that advertised their various places of origin.

The Bigger Picture: Ties to the Outside

By combining all of the imported materials discussed above it was possible to reconstruct the web of long-distance trade networks that were utilized by the royal and sub-royal families of El Zotz in the Late and Terminal Classic. Using the cumulative number of imported items recovered at each residential complex and the distinct points of origin that they represent it was possible to determine how connected each lineage group was with the world beyond El Zotz (see Table 1). Unfortunately because the obsidian sourced from the Acropolis was not a representative sample from the complex, the Acropolis could not be included in this calculation. For this reason, the Acropolis will be considered in a qualitative sense rather than quantitative. Furthermore, in the interest of being conservative, marine shell fragments that could not be assigned to an exclusively Caribbean or Pacific species were tallied as Caribbean specimens, which follows the general trends for El Zotz and the central Peten in general.

Of all of the elite lineages in this study, the people at La Luna owned the most foreign commodities and obtained them from the most individual points of origin, representing the richest web of long-distance trade networks utilized in any Late Classic household group in the El Zotz area (d = 2.48). This web of contacts was no doubt carefully cultivated, particularly in the case of diplomatic and social relationships with Motul de San José, El Perú- Waka', and Altun Ha. The extended family at La Luna would have fostered these particular bonds by exchanging exclusive gifts with representatives of these polities. The preponderance and diversity of imported goods at La Luna begs the question of whether some residents there were merchants. Distribution studies and ethnohistorical records indicate that long-distance trade in the ancient Maya lowlands was heavily sponsored by elites in search of exotic luxury goods (Landa 1941; Roys 1943; Foias 2002). Given that elites were tasked with creating prestige goods, it is logical

that they would also be tasked with trading and acquiring prestige goods. Unfortunately, it is difficult to confirm this hypothesis, as the definitive residence or remains of a Classic lowland merchant have never been identified for comparison.

Following La Luna, the lineage group at Las Palmitas possessed the next most diverse assortment of import sources (d = 1.95). Although the overall number of foreign goods found at Las Palmitas was the lowest of any residential compound, and the obsidian, shell, and jade collections were particularly sparse, the nonlocal pottery at Las Palmitas was still larger than the assemblage at the Northwest Courtyard and considerably more heterogenous. The nobles at Las Palmitas seem to have invested in importing serving vessels as much as possible from as many places as possible, even though most could only be acquired through public spheres.

Conversely, the assemblage at the Northwest Courtyard was lacking in overall variety and unique or special items. All imported goods were of the most common forms and types found in the Peten, and came from the closest and most easily accessible long-distance shipment routes. This is reflected in diversity index for the Northwest Courtyard, which was the lowest of the three residential complexes (d = 1.12). As a result, it does not seem that the secondary elites in the Northwest Courtyard developed any political connections of their own outside of El Zotz, and cultivated only superficial relationships within public trade networks.

The Acropolis itself did house decorative serving vessels from three different sites/regions, the remains of animals brought from the Caribbean, and the highest quantity of jade found in a Late or Terminal Classic household. When obsidian data is removed entirely from the calculation of source diversity, five locations remain as the points of origin from which the Pa'ka'n royal family acquired their luxury goods. This assortment of sources is richer than the origins of luxury goods from the Northwest Courtyard (d = 0.68), but less diverse than Las Palmitas (d = 1.53) and La Luna (d = 1.41). With an index of 0.96, the Pa'ka'n royal family

engaged in long-distance trade to obtain unique objects, but did not cast as wide of a net as their subordinate courtiers did.

It is interesting that the further away from the Acropolis that court members are situated, the more they invest in procuring foreign commodities. It may be that the secondary elites outside the core of El Zotz used nonlocal materials and luxuries as a medium to craft their own political and social identities outside of the Pa'ka'n court. A certain level of independence from the El Zotz royal family is already evidenced by the detached location of Las Palmitas and La Luna, so investing in external relationships may have been another mechanism for the lineage groups at Las Palmitas and La Luna to establish individual elite identities outside the Pa'ka'n royal family. In contrast, the courtly identity of the family in the Northwest Courtyard was literally and figuratively attached to the royal family of El Zotz in the site core. Given the location of the Northwest Courtyard, built immediately off of the palace, combined with the limited resources outside El Zotz that the occupants possessed, it is clear that the non-elite courtiers living in the Northwest Courtyard tied their own station tightly to the Pa'ka'n royal family and rather than cultivating relationships with other courts.

The traders, diplomats, and leaders that the people at Las Palmitas and La Luna interacted with would have shaped how these sub-royal families engaged with the outside world, and brought the outside world into local practices at home. Beyond this, any affiliations with external political powers would have influenced the political identities of these lineage groups at home in their local court.

9. CONCLUSION

Members of the Pa'ka'n Court

This dissertation has focused on demystifying the non-royal political players of Classic Maya courts, particularly in those geographic regions where there is little written record of such individuals. The topic was investigated at the small royal center of El Zotz, where I focused on a residential groups outside of the royal palace that had previously been labeled "elite" based on diverse criteria (location, architecture, and materials). Using practice theory to consider physical setting, household materials, ritual activities, and exchange networks at the Northwest Courtyard, Las Palmitas, and La Luna, I was able to define each lineage group as elite or non-elite members of the court, with some ideas as to their role in the court of El Zotz. These deductions were the starting point of my analysis, and summary of these results is detailed below.

Acropolis: Synthesis of Evidence

Although this dissertation is not about the royal family at El Zotz, analysis of the Acropolis and its residents was used to establish the behavior of the highest echelon of the court at El Zotz. This was used as a point of comparison to identify the lower tiers in the court bureaucracy. The architecture at the Acropolis was constructed with complex techniques requiring great knowledge and skill, like vaulted ceilings, and entailed the greatest labor investment of any Late Classic residential compound at or around El Zotz. The location of the palace in the larger layout of El Zotz was representative of the importance of the people who lived there, and the palace itself was structured to provide some privacy for government proceedings, while also opening up lineage-level rituals to the public eye.

In day-to-day life the royal family performed the same activities as any average Maya household, but certain laborious activities were performed less often than normal. Acropolis occupants cooked less often and stored less food surplus on site than the typical household in the Buenavista Valley. Moreover, fewer animals were processed for eating and fewer stone tools were made from scratch in the regal compound. Instead, these activities were likely outsourced to staff outside the Acropolis.

Style in the Acropolis trended towards homogeneity, the inhabitants relying on a few specific ceramic types for the majority of their serving wares. That is not to say that the collection lacked finesse however, as elite specific vessels originating from restricted circles in and outside El Zotz were also present, including one with the Pa'ka'n emblem glyph. Furthermore, the overall ratio of prestige vessel to unslipped and monochrome dishes was more than double the ratio found in a normal household.

Ritual activity in the Acropolis took place in a partially public space in front of the entrance to the Acropolis. The open access to this space may have intended to open up the previously private lineage group rituals of the royal family to outside viewers as Late Classic concepts of dynastic kingship pulled more and more from Maya concepts of lineage and descendance from a divine ancestor (McAnany 1995). To emphasize the supernatural primacy of their lineage, the royal family ritually activated their pyramid with a cache modeling the Maya cosmos, using marine animals to represent primordial waters, precious stones and minerals to represent the earth, and a polychrome bowl to represent the skies. This act symbolically placed Str. L7-11 at the center of the Maya universe.

Finally, relationships between the Pa'ka'n monarch and the outside world were rich. The residents in the Acropolis utilized general trade networks to acquire fine wares from the Usumacinta region and the eastern Buenavista Valley, shell from the Caribbean, jade from the

Motagua Valley, and obsidian from the Maya and central Mexican Highlands. Furthermore, regals received culturally transformed jade incised with iconography from palace workshops and Ik' style vases from the court in Motul de San José. These imported items reflect a wealth of open networks available to Acropolis residents for exchange, as well as some personal relationships with their powerful neighbors.

The material remains of the residents of the royal palace reflected their influence over workforces for building monuments and generating daily necessities. The sovereign and his family hosted impressive feasts with specially crafted vessels made for the Pa'ka'n elite, and performed lineage-based ceremonies in front of general audiences to emphasize the basis of their governing power. Finally, royal family fostered relationships in a wide trade network that afforded them access to distant exotics, and maintained political relationships close to home.

The Northwest Courtyard: Synthesis of Evidence

The Northwest Courtyard was the first residential group identified in this study as a possible secondary elite residence at El Zotz. The complex was selected because its architecture posed a curious paradox with its central location and with its neighbor, the Acropolis. Considering its surroundings, the Northwest Courtyard is the least architecturally complex architectural group in the site core, composed of the smallest sized platforms in the core of El Zotz. The architecture required a limited skill level and labor investment to assemble compared to the rest of the civic-ceremonial center. However, the group is still more than double the area of the traditional non-elite patio groups near El Zotz, and more than triple the construction volume (therefore more than triple the work to build). Moreover, the location of the Northwest Courtyard, in the core of El Zotz and next to the royal palace, with direct access into

the political headquarters of the Pa'ka'n court, suggests a close relationship and functional need to be connected between the family in the Northwest Courtyard and the local monarchy.

The physical setting of the Northwest Courtyard appears to be neither the dwelling of a powerful family in the court of El Zotz, nor the home of an average family disconnected from the court. Therefore two possible scenarios were put forth to describe the people in the Northwest Courtyard: the residents were either lower elite members of the expanding Late Classic aristocracy, or they were non-elite courtiers that worked for the court in the royal palace. Both of these broad categories contain a variety of specific jobs, the former including clergymen and lower-level government administrators, and the latter including cooks, domestic craft producers, and servants.

The Late and Terminal Classic materials excavated from the Northwest Courtyard reflected the traditional subsistence practices of self-sufficient, commoner households in the Terminal Classic and Postclassic. Pottery reflected an emphasis on preparing meals and storing surplus food, while lithic and faunal remains indicated that the residents in the Northwest Courtyard butchered their own animals and made their own stone tools. Every step of the tool production process was represented in the lithic material, from early stages where the inhabitants broke apart chert nodules and took flakes off of cores, to the final stages of sharpening or thinning, and the actual end products. Moreover, animal bones suggested that the people in the Northwest Courtyard acquired their animals whole and processed them at home. The results of these analyses are neither indicative of a powerful family that outsourced basic production activities, nor of a family that produced beyond its own needs for outside consumers. Thus while the people living in the Northwest Courtyard were not particularly powerful or living a life of luxury at home, they also do not appear to have been workers producing goods for the royal court.

In decorated mediums which offered room for expression, the family at the Northwest Courtyard mimicked the uniform aesthetics of the royal family. Serving vessels decorated with sculptural details were typically incised or occasionally impressed, but anything else was unlikely. Few unusual decorative elements were found in the Northwest Courtyard, be that surface treatments or painting styles. The proportion of prestige serving vessels used in the Northwest Courtyard was low, typical of a non-elite household, and no specific markers of status were uncovered at the group. Although the people that lived in the Northwest Courtyard did not own many prestige wares, they did own a few dishes with designs related to kingship and power. Stylistic choices along with the occasional courtly designs on serving wares created an impression that the occupants of the Northwest Courtyard were firmly aligned with the royal family and Pa'ka'n court, even though their day-to-day reality was not so different than the average inhabitants outside of El Zotz.

Beyond El Zotz the people in the Northwest Courtyard were not exceptionally well-connected. They owned some exotic goods which were obtained through the most accessible major trade networks; fine paste vases from the upper Usumacinta, shells from the Caribbean, and obsidian from the Maya Highlands. This web of external relationships pales in comparison to other groups, as demonstrated by the low diversity index of trade routes represented by imported materials in the Northwest Courtyard. The lack of exclusive or distant networks indicates that people in the Northwest focused on nurturing their local relationships with the royal court more so than venturing out to form distant alliances.

The Northwest Courtyard: Courtly Staff

Given the above evidence the residents of the Northwest Courtyard were most likely non-elite courtiers. The physical setting of the Northwest Courtyard and the practices of the

people living there are telling of a family that did not possess political influence or external networks, but followed the cultural cues of the Pa'ka'n court and regularly visited the royal palace where administrative and diplomatic business was held. They had exclusive access to the political arena of El Zotz, but did not possess any material symbols (i.e. high culture) declaring their membership to the inner elite circle of El Zotz. A functional role in the court would explain the paucity of power symbols in the Northwest Courtyard, such as monumental architecture, jaguars, cosmic models, and images of sorcery and sacrifice. Moreover, the non-elite status of the residents at the Northwest Courtyard explains why they were not privy to restricted exchange circles for obtaining exotic goods.

I propose that the family in the Northwest Courtyard were non-elite courtiers who provided intangible domestic services to the elite members of the court. Because the family living in the Northwest Courtyard did not generate food, meat, or tools for the residents of the Acropolis, it seems that the family were not cooks and craftspeople, but more likely worked as attendants and personal valets, which would explain their direct access into the palace. This courtier archetype appeared in palace scenes on Classic Maya vases and murals, where they most likely represented a broad array of functionaries who in reality possessed a myriad of titles and specific responsibilities. This category of courtly personnel is not typically mentioned in texts, the rare exception being the *baahtz'am* (Head Throne) title, which was tied to the occasional staff present at courtly receptions (Martin 2020).

Palace staff characters are unique in Classic Maya art in that they can violate the normal rules of proximity in the social hierarchy of space; typically characters closest to the king in Maya art wear clothes and paraphernalia asserting high social status, with those of minimalist attire standing furthest away from the king (Houston 1998; Reents-Budet 2001; Jackson 2009). However, figures falling into this general servant category did occasionally appear standing

immediately behind kings, sometimes almost hidden behind the throne (Figure 8). It was suggested in chapter two that these characters may have been pictured in these spaces to reflect not necessarily status, but a level of familiarity and trust that these characters achieved with their rulers. The people that lived in the Northwest Courtyard violated the same rules of space and proximity to power that servant characters did in Classic art, but on a physical landscape. The family lived right next to the royal palace in immediate proximity to the monarch and his court, despite the fact that the family was not part of the inner elite.

The Northwest Courtyard was built against the back of the royal palace, immediately behind Str. L7-1. Structure L7-1 is one of the most likely candidates for the original throne room or royal chambers in the Acropolis because it was the focus of the palace's Early and Late Classic construction efforts, as well as its termination, housing the largest concentration of the Acropolis termination deposit. The combined labor that went into creating and ritually terminating Str. L7-1 demonstrate how significant this specific building was to the Pa'ka'n court. Thus it is interesting that the Northwest Courtyard was built immediately behind Str. L7-1, with direct access feeding from the Northwest Courtyard onto the front steps of Str. L7-1. The family in the Northwest Courtyard must have been trusted members of the court to have lived immediately behind the royal chambers, in the same way that certain court attendants were trusted to stand in the vulnerable space immediately behind the king (or his throne). Given the archaeological evidence, it is possible that the family in the Northwest Courtyard was a physical embodiment of the palace attendants that served the royal court.

Las Palmitas: Synthesis of Evidence

The lineage group that designed, constructed, and inhabited Las Palmitas was an influential but nonregnal family in the aristocracy surrounding El Zotz. The construction of Las

Palmitas was a vast undertaking that required extensive leveling of the Buenavista Escarpment before even building the monumental pyramid and palaces that define the complex. These two main features, the palace patio group and the pyramid-shrine combination, were built with the best architectural techniques and materials, akin to the buildings of the Acropolis. The palatial residence and religious sanctuary dwarfed the remaining architecture around the complex, which was minimal, both in size, number, and labor investment. Additional domestic and ancillary spaces were low, coarsely constructed, and spread out, allowing all attention to fall on the raised palaces and grand pyramid with its supplemental shrine. This stark contrast indicates that the nobility at Las Palmitas threw the majority of their human power into constructing a few massive buildings associated with the noble family. The result generated a major visual impact and imparted a sense of grandeur and power, although limited specific contexts.

Although clearly influential, based on architecture the family at Las Palmitas was not as powerful as the royal family in the Acropolis during the Late Classic. The new Late Classic edifices in the Acropolis were entirely monumental, and the superstructures alone required more labor to build than all of Las Palmitas. This indicates that the central monarch of El Zotz could draft more people into his workforce than the lineage head of Las Palmitas.

Still, the aristocrats at Las Palmitas emulated the royal court in certain ways. The way that they planned Las Palmitas separated residential and public ritual spaces in a way that mimics the layout of the Acropolis. Moreover, the placement of the pyramid relative to the palace at Las Palmitas follows the arrangement of those same structures at the Acropolis on a smaller scale. Structure M3-1 was also activated with a dedication offering placed inside the pyramid while it was built, much the same way that Str. L7-11 was activated with a lip-to-lip cache during the pyramid's construction. Given that both of these ritual buildings were erected sometime within a 150-year period (AD 700-850) the chronological resolution is not tight enough

to determine which pyramid was constructed first. Regardless the two most likely scenarios are that Str. L7-11 in the Acropolis was erected first and the lineage group at Las Palmitas mimicked the spatial and ritual ordering of Str. L7-11 for their own pyramid, or that both structures were built around the same time following the same principles, without either being the wholly original specimen.

By following the same methodology that was used to build the ritual center of the royal court of El Zotz, the nobility at Las Palmitas built Str. M3-1 as a reference to rulership and the Pa'ka'n dynasty. This notion is strengthened more so by the actual contents of the dedication cache inside Str. M3-1: a jaguar (or jaguar-like cat). This symbol of power and supremacy was complemented by abstracted representations of kingship, like jaguar spots and woven mats on ceremonial vases.

Despite their image of power and status, the residents of Las Palmitas did not command an outside workforce to care for their everyday needs. People at Las Palmitas butchered their own game, cooked and stored their own food, and made their own tools at home. These daily practices are evidenced by refuse from every stage of animal processing and stone tool production, and by the large proportion of cooking and storage basins found at the complex. Given the statistics, there are no signs that the people at Las Palmitas received outside help or resources in their everyday routines.

Serving wares were the one medium that the people at Las Palmitas used to distinguish themselves from the royal court at the core of El Zotz. Although the color choices and painting styles were not significantly different from those found in the core of El Zotz, sculptural surface treatments in the serving vessels at Las Palmitas were applied with great variety, as opposed to the uniform aesthetics of the royal family and Northwest Courtyard. People at Las Palmitas used impressed serving vessels almost as much as incised ones, and experimented with other

decorative techniques, even rare ones, more so than any other lineage group. The serving vessels at Las Palmitas had the richest diversity of decorative surface treatments, demonstrating that the residents of Las Palmitas enjoyed variety and innovation in their serving wares, rather than standardized dishes. Most of the physical embellishments found at Las Palmitas are easier to apply to clay than painting the entire surface with iconography, so it may be that sculptural decorations were an accessible mode of ornamentation for the nobility at Las Palmitas to express their own style.

In keeping with the themes of variety and experimentation, the lineage group at Las Palmitas also procured foreign ceramics from the distant Tabasco Plains, the upper Usumacinta region, and the eastern Buenavista Valley, and obtained distinctive Ik' style ceramics through relationships with Motul de San José. These exotic ceramic varieties brought even more visual diversity into the serving wares collection at Las Palmitas, and introduced unique forms of surface decoration, contributing to the innovative nature of the overall assemblage.

Long-distance trade networks at Las Palmitas included a mix of near and far-reaching public spheres and individual relationships between neighboring elites. These webs were surprisingly diverse in terms of the points of origin that they reached given the quantity of goods that were imported to Las Palmitas. The richness of trade relationships that the people at Las Palmitas engaged in reflected an active interest in building external networks.

Las Palmitas: Power Posing Nobility

The monumentality of Las Palmitas resolutely announces the status of its residents even from a distance. The work and skill involved in creating Las Palmitas was comparable to the royal palace, while the forms of architecture and the way that they articulate at Las Palmitas echoes the design of the Acropolis. The group ceremonies at Las Palmitas were performed in a

publicly accessible pyramid like Str. L7-11 in the core, which was built in a similar manner to Str. M3-1 at Las Palmitas. Both pyramids were constructed in a single building phase and activated with a dedication deposit set inside the rubble fill core. These two structures were built around the same time frame (AD 700-850), so it is difficult to say if one was modeled after another, or if both were designed and built was part of the same program. Either way, Str. M3-1 was at the very least devised to share some of the qualities of Str. L7-11.

Despite its similarities to the Acropolis, there is no denying that the people at Las Palmitas did not have the same resources available to them as the dynastic lineage. The royal residential group was enclosed entirely with monumental construction, while the only monumental structures at Las Palmitas were two palaces and a pyramid. The difference in the workforce harnessed to build Las Palmitas is evident in the difference between the energetic outputs at Las Palmitas and the Acropolis. What is more, residents at the Acropolis received supplemental food and necessities from outside producers on a routine basis while the people at Las Palmitas did not.

Given these data Las Palmitas is a strong example of a secondary elite residence. The occupants wielded robust influence for temporary projects, but were not close to rivaling the power of the Pa'ka'n monarch. Even so, the people at Las Palmitas tried to generate a kingly atmosphere in their home. They poured their resources into creating a monumental setting reminiscent of the royal palace and pyramid, and even activated Str. M3-1 with a jaguar cache to exude power and authority from the center of the family pyramid. These actions reflect a lineage group concerned with projecting the image of a supreme and mighty lineage, one which could be compared to even the royal family. The residents of Las Palmitas utilized the traditional symbols of kingship that developed throughout the Classic period, namely monumental residences and ceremonial structures, ceremonial spaces that invited elite guests and nearby

commoners alike to partake in the divine justification of power structures, and ritual performances that emphasized natural authority. These reflect the behaviors of a sub-royal family closely tied to the local dynasty, and perhaps one that was eager to assert its own dynastic roots. This might be the type of scenario that could easily arise through the polygynous structure of Classic Maya royal marriages, where non-inheriting sons sought secondary positions where they could assert their social status (Martin 2020).

La Luna: Synthesis of Evidence

Despite the modest and removed setting of La Luna, the people that resided there were most likely secondary elites tied to El Zotz. La Luna was a unique residential group because of the contrast between the architecture built there and the materials found there. The complex was built at the beginning of the Late Classic (the Mo' phase), although the family who occupied it most likely moved there slightly earlier, at the end of the Early Classic. The family chose not to settle in the core of El Zotz, the largest site in the Buenavista Valley, or immediately next to it, but 2 km east of El Zotz. This location is notably closer to the large bat cave that defines the Buenavista Escarpment, the cave that inspired the Early Classic and early Late Classic orientations of El Zotz. To construct La Luna its occupants first terraced a large area along the bottom slope of the escarpment to prepare flat plots for construction. Although the architecture that was built afterwards was not different from the basic architecture found in commoner patio groups, this terracing effort was significant. The terraforming combined with the overall size of La Luna and number of structures built there reflect a large, orchestrated labor effort that was not on the monumental scale, but that still may have required additional support from outside kinship groups. Thus, while the people at La Luna did not possess influence or political power

on the same level as the royal family of El Zotz or the residents of Las Palmitas, they probably held more social capital than the average family in the Buenavista Valley.

The remains of life at La Luna suggest that the people that lived there were independent and provided for themselves rather than receiving outside help. The proportion of vessels used for preparing and storing food versus vessels used for consuming food at La Luna were consistent with a stand-alone, non-elite household. However, the proportion of valuable serving wares versus basic serving wares at La Luna was exceptionally high for a residential complex. Even in household refuse there was a surprising quantity of prestige wares, suggesting that the family at La Luna at the very least possessed significant wealth if not political cachet.

The style of serving vessels that residents preferred at La Luna contrasted strongly against the style of serving wares used in the site core. The people at La Luna enjoyed more variety in their assemblages, hence their colorful collection of monochrome dishes, which were not as dominated by reds as the assemblages from the Acropolis and the Northwest Courtyard. The spread of ceramics from La Luna displayed a variety of specialized painting styles, both local and foreign, and exhibited the second most diverse assortment of sculptural embellishments of any group. Similar to Las Palmitas, this family experimented with unusual surface treatments more so than people in the core. The aesthetic preferences of the family at La Luna are not unlike those of the people at Las Palmitas, and if anything are even more idiosyncratic.

Of the painted polychromes found at La Luna many appear to have been made in the local palace workshop. Vase fragments revealed dark iconographic themes, some of which were characteristic to early Late Classic El Zotz. Vases from the Pa'ka'n court were mostly uncovered in Str. T1-11, the main ritual structure of La Luna. Interestingly, the community ritual facility for La Luna was not separated from residences in the group, but situated in the center of

the compound in the main patio group. This arrangement was unique and in many ways the opposite of the spatial layout at the Acropolis and Las Palmitas, where ceremonial venues were separated starkly from domestic spaces. The placement of Str. T1-11 suggests that religious and household practices were tightly integrated at La Luna as opposed to the harsh separation that developed at the Acropolis and Las Palmitas, perhaps due to institutional demands to publicize royal household rituals.

Of the ceremonies that took place at Str. T1-11, one event included redepositing discarded materials from a feast into the fill of Str. T1-11. This feast most likely took place in the late 7th or early 8th century, and the remnants of it were moved to Str. T1-11 soon after. The prevalence of elaborate prestige vessels in the feasting deposit indicates that the gathering was diacritical and therefore exclusive, between the authorities at La Luna and other powerful individuals from the area. As a social ritual that gathers people to form connections, the feast at La Luna was a mechanism to build coalitions; aristocrats from other lineages were summoned to La Luna to strengthen bonds and form alliances with the La Luna nobility in a ceremonial setting. This evidence of coalition building demonstrates one of the political strategies that the family at La Luna pursued to gain influence as a faction within the court of El Zotz.

In addition to building local alliances, the residents of La Luna sought connections outside of El Zotz. They cultivated a rich external network using contacts in restricted elite circles and long-distance traders from open exchange networks. Objects that traveled through public spheres were imported from the Valley of Mexico, the Tabasco Plains, the Pacific coast, the Belizean coast, and the Motagua Valley, while precious commodities were carefully crafted and transported from the courts of Altun Ha, Motul de San José, and El Perú-Waka'. The family at La Luna possessed exotics from the most diverse range of foreign sources of any Late

Classic lineage at El Zotz. The variety of locations that objects originated from indicates the wealth of connections that the people of La Luna fostered beyond El Zotz.

La Luna: Shaman-channeling, Shoulder-rubbing Nobility

Although La Luna was not constructed with monumental architecture or impressive masonry techniques, the possessions of the people who lived there were prestigious, nonetheless. Residents owned high culture items made exclusively in the palace workshops at El Zotz, Motul de San José, El Perú-Waka', and Altun Ha, and possessed large quantities of prestige serving wares for the diacritical feasts that they hosted. Moreover, the people at La Luna were connected to early sources of dynastic power at El Zotz, including a nearby sacred bat cave, ritual sacrifice, and *wahy*-wielding witchcraft. No ritual implements were found at La Luna that were characteristic of Classic Maya priests, so it is difficult to confirm any clerical duties or offices held by the people at La Luna, however the community was clearly interested in emphasizing sacrifice and sorcery to their guests and in their ceremonies in general. The people at La Luna channeled these powerful shamanistic forces that were feared and revered by the ancient Maya, particularly at El Zotz.

At the same time, the people at La Luna were well-connected in the restricted and unrestricted exchange networks in the Peten. Residents received gifts from aristocrats at other sites in the central Peten and northern Belize, and obtained commodities traded from surprisingly long distances such as the Pacific coast and the Valley of Mexico. It has been suggested here based on the quantity and diversity of imported goods that the residents of La Luna may have even been merchants, facilitating the movement of exclusive courtly items. Such a role would have provided these individuals access to products from palace workshops, as well as access to members of other courts as well. Although a merchant occupation is

difficult to prove, there is no doubting that the external network of the family at La Luna was vaster and richer than even the networks of the royal family. This suggests that residents of La Luna sought out connections, making calculated efforts to network with outsiders. The same efforts were made with the local aristocracy as well, and the people at La Luna hosted feasts so that they could hobnob with neighboring nobles.

It seems that the secondary elites at La Luna chose to focus on expressing and improving their social capital through material goods rather than architecture. The materials at La Luna confirm that the people who lived there were locally prominent individuals deeply tied to the Pa'ka'n court and its esoteric traditions, but also actively engaged with courts outside of El Zotz. These interests are reflected in the high culture, elite specific goods found at La Luna that involved considerable labor to create and procure. The materials speak of an undeniably well-connected family that was a sub-royal lineage involved in the Pa'ka'n court

The dichotomy of the architecture versus the materials at La Luna may be explained by the merchant hypothesis. If the aristocrats at La Luna were elite traders, then it is logical that their status would manifest through material goods rather than control of large labor forces at home. In the Postclassic, the *pochteca* were wealthy, high-status merchants for the Aztec empire with a close network of foreign contacts that made them ideal political agents as well as traders (Berdan 2005). Despite their affluence, the *pochteca* were frequently admonished for displaying their riches publicly, and strict sumptuary laws kept the prominent merchants from rising above the nobility in social or political influence (Sahagún 1950-1982:29-31; Berdan 2005). Although the family at La Luna clearly did not hide its material wealth, given the lavish feasts that the family threw for other local aristocrats, the humble architecture of the complex may have been a show of modesty to moderate the family's prestige. If there were elite merchants living at La Luna, it is possible that they did not possess the necessary social

influence to build monumental architecture, or that they chose not to build monumental architecture, because of restrictions similar to those of the *pochteca*, which prevented lower-born lineages from challenging the prestigious image of the king.

The Court of El Zotz: inner and outer circles

By comparing the practices of the dynastic lineage at the Acropolis against courtiers at the Northwest Courtyard, Las Palmitas, and La Luna, a number of patterns emerge that provide insight into the lives of different members of a royal court. The royal family and other residents of the royal palace were the only individuals who received outside support on a day-to-day basis. Reduced evidence for animal butchering, cooking, food storage, and early-stage tool making at the Acropolis suggests that the residents there outsourced some of their basic production needs. By token of this decreased production load, the people at the Acropolis had more opportunity for other activities like social and ceremonial meals. Meanwhile, secondary elites and non-elite courtiers alike spent their days performing the essential subsistence activities of the typical family in the Buenavista Valley. Cooking and food storage was the dominant purpose of pottery at the Northwest Courtyard, Las Palmitas, and La Luna. Every step of the tool production process was represented in the lithic material at the Northwest Courtyard and Las Palmitas, from early stages where the inhabitants broke apart chert nodules and took flakes off of cores, to the final stages of sharpening and thinning. Additionally, animal bones suggested that the people in the Northwest Courtyard and Las Palmitas acquired their animals whole and processed them at home. These distinctions between the activities at the royal palace and at the residences of other courtiers define resources that were only available to the royal family in a Maya polity. Only the royal family appears to have benefited from the help of supplemental labor to complete everyday tasks.

Distinctions also surfaced between the secondary elites identified in this study, versus the top and bottom tiers of the courtly hierarchy. Spatially, in the Late Classic the royal family lived in the ceremonial heart of El Zotz with their plausible support staff, while secondary elites built their own separate compounds branching outwards from the site core. This shift by wealthy and influential families beyond the core at El Zotz happened at a time when evidence of sub-royal parties in general emerged across the Maya lowlands. The development of Las Palmitas and La Luna follows the narrative that Mayanists have built of a burgeoning aristocracy that grew in size and power in the Late Classic until their distinct political presence was prominent enough to register in the archaeological record.

Both noble lineages identified at El Zotz built their compounds outside of the site core in an act that provided them some physical independence from the royal family. Although the specific location of each may have been chosen for different reasons (defensibility and sacred geography), the choice to move away and separate their daily lives from the ruling family demonstrates a desire by each lineage for the latitude to develop their own identity within the political system at El Zotz.

Another way that secondary elites differentiated themselves from the royal family at El Zotz was through expressive everyday mediums like pottery. In the ceremonial center of El Zotz the royal family and their personnel owned serving wares of a fairly homogenous style, even within wares that had additional embellishments to the surface of the clay. Conversely, sculptural elements on the serving dishes from Las Palmitas and La Luna were more diverse. Embellishments on vessels were not dominated by incisions, but featured more impressions and included more unusual variations and combinations of sculptural decorations. Serving wares in the core contrasted most with the pottery used at La Luna, which featured non-red slip

colors and different painting styles more so than pottery in the core, in addition to the variety of surface decorations.

Because the differences between serving vessels in and outside of the core were based on stylistic choices rather than functional ones, the variances demonstrate differing community identities (Wiessner 1984). Pottery used by the residents of the Acropolis and the Northwest Courtyard expressed the habitus of each of those communities when eating meals. Court members within the core would have been accustomed to eating off of a more homogenous collection of dishes. Outside of the core, the nobility that associated with El Zotz dined out of vessels with a variety of common and uncommon surface embellishments. In the case of La Luna the collection of dishware was even more heterogenous, with more dishes of different colors, embellishments, and painting styles. Secondary elites seem to have experimented with aesthetic elements on ceramics more so than the royal family, suggesting that pottery offered an accessible medium for testing new stylistic directions, and that secondary elites sought ways to express their emerging singular political identities through artistic innovations in this medium.

Finally, in the spirit of exploration, both families pursued relationships with traders and elites outside of El Zotz. Both Las Palmitas and La Luna had access to nearby, open trade networks reaching east to the Belizean coast and south (though had much La Luna greater access), down the Pasion River toward the Usumacinta river or the Highlands. In addition to these common spheres of circulation, both noble families nurtured personal relationships with the court of Motul de San José and developed contacts in less accessible trade routes like those branching down the Usumacinta River into the Tabasco Plains, and overseas along the Gulf Coast into the Valley of Mexico.

Relationships with the outside world were expressed most clearly through serving vessels, in the same way independent styles were expressed through the same medium. It seems that both

lineages utilized ceramics as a safe medium for exploring unique identities outside of the royal palace.

The daily practices of the nobility at Las Palmitas and La Luna distanced them slightly from the central court at El Zotz. The use of everyday objects by the secondary elite that played with aesthetic variety rather than uniformity underlined differences between the secondary elites and their primary ruler. Moreover, when special imported vessels were used by the people at Las Palmitas and La Luna, it reinforced the relationships that each group built with external parties. Thus the practices of the nobility at El Zotz distinguished them from the royal family in small ways.

Political Strategies of the Nobility

By reviewing the materials and practices at La Luna and Las Palmitas, two unique forms of behavior became apparent. First, both lineages utilized symbols of power and references to the Pa'ka'n dynasty in their ritual practices, and second, they networked themselves to become as well-connected, if not more than, the royal family.

Ritual Power

The materials and location of La Luna speak to a ritual-minded community interested in specific sacraments and forms of shamanism related to the early dynasty at El Zotz. La Luna was built in close proximity to the large bat cave in the Buenavista Escarpment around which the Early Classic and early Late Classic centers of El Zotz were oriented. Given the cosmic notion of caves as portals into the underworld and liminal spaces for highly restricted sacraments, it is not hard to imagine that the bat cave near La Luna could have been a highly charged sacred site for ritual activity (Stuart 1997; Brady and Prufer 2005). Unfortunately,

although exploration into this cave is of tantalizing interest, critical protection of the local bat colony stops this line of inquiry on a literal cliffhanger. Regardless, the early orientations of El Zotz demonstrate the significance of the bat cave for the local population, and can explain the choice of settlement location for the prominent La Luna lineage.

Iconography on ceremonial vessels at La Luna further emphasize an interest in liminal spaces and ritual activity, portraying various *wahy* figures. The *wahyoob* represent evil forces that could be impelled by individuals with shamanic power to harm their enemies (Stuart 2020). Such creatures are displayed prominently on early Late Classic vases from El Zotz, but were also featured in incipient forms on the Early Classic bowls that furnished the tomb of the Pa'ka'n dynastic founder (Houston et al. 2015). Moreover, images on vases at La Luna reference sacrificial characters and general motifs referring to death and the underworld. Sacrifice was a particularly strong theme in the tomb of the dynastic founder at El Zotz, but also in dedication deposits at El Zotz's historical predecessor, El Palmar (Garrison and Houston 2018; Scherer 2018). Sacrifice and the manipulation of *wahyoob* appear to have been central to power in the early days of kingship at El Zotz. The location and ritual objects at La Luna show how the nobility that lived there attempted to share in these power sources, and may have even been involved in the execution of these esoteric rites.

Compared to La Luna, the sub-royal family at Las Palmitas employed more general symbols of power and authority in their ritual practices that were widely utilized across the Maya region. Unlike La Luna residents, the people at Las Palmitas invested in ritual monuments over ritual materials, building a massive pyramid, Str. M3-1, for group sacraments. Pyramids were a traditional symbol of kingship in Classic Maya society, marking the space where those with divine supremacy convened with their ancestors and the gods. The significance of pyramids stems from their original function as mortuary shrines where the remains of prominent ancestors

were housed (McAnany 1995). The Maya used their ancestors as claims to dynastic power and used large construction projects to demonstrate that power, so pyramids became a natural insignia of divine supremacy. Structure M3-1 at Las Palmitas thus would have been a widely recognized symbol of supernatural authority to the people of El Zotz. To emphasize their pedigree even more, the nobles at Las Palmitas built their ritual house in an open plaza where ceremonies could be viewed by the public. This decision moved lineage group-level ceremonies outside the household patio into a public sphere, using family rituals to build up public claims of power.

Going a step further, during the dedication of Str. M3-1 ritual practitioners planted the remains of a jaguar-like cat inside the core of the pyramid. This instilled all of the attributes of the jaguar into the ritual house of Las Palmitas, where group rituals were performed, and where ancestors were venerated. The jaguar is a widely acknowledged emblem of authority and kingship in Maya culture, thus the symbolism of placing a jaguar inside the pyramid at Las Palmitas would not have been missed. Although the people at Las Palmitas are presumed to be different from the royal family, Str. M3-1 and the rituals that took place around it clearly expressed claims of illustrious lineage. This ancestry could be linked to the dynastic line, or another prominent local lineage.

It is also worth noting that nobles at Las Palmitas designed their compound in reference to the royal palace and Str. L7-11 in the site core. The similarities may not have been obvious to outsiders, but to residents of El Zotz who frequented these spaces the similar layout and quality of architecture would not have gone unnoticed. This is the one local reference made to dynastic power at Las Palmitas, but otherwise the ritual center of the site focuses on widely-acknowledged symbols of supremacy.

Second-tier elites at El Zotz sought and expressed dynastic power through ritual, although they did so in very different ways. The symbols, both spatial and material, that the family at La Luna used to express power were meaningful locally, referring to specific places and practices of the early Pa'ka'n dynasty. Conversely, the ritual space and practices at Las Palmitas emanated power using universal symbols of divine lineage and natural authority in the Classic Maya lowlands. The difference between the choices of these two lineage groups may relate to their discrepancy in occupation; La Luna was occupied and constructed at the beginning of the Late Classic in the 6th or 7th century, while Las Palmitas was not built until the second half of the Late Classic, in the 8th century. The ritual symbols at La Luna referred back to the origin practices of the Pa'ka'n dynasty from the Early Classic, while the symbols at Las Palmitas tied into the latest Late Classic manifestations of divine power at El Zotz (the construction of Str. L7-11). The distinction between the customs at La Luna and Las Palmitas may relate back to the point in time at which each lineage group left the core of El Zotz to build its own compound. It is possible that the people at La Luna drew from early dynastic customs because these were prominent in the center of El Zotz at the end of the Early Classic, when people first settled at La Luna. Evidence from the Terminal Classic suggests that focuses on sacrifice continued at La Luna even after they died out at the center of El Zotz. In contrast, the people from Las Palmitas reproduced the current trends in the core of El Zotz when they moved to the Buenavista Escarpment in the early 8th century. In both locations there is no indication that the families at each group changed their initial strategies and incorporated new or different power symbols over time.

Network Building

In Brumfiel and Fox's (1994) volume on factions in the New World, Brumfiel discusses the difficulties of identifying factionalism in the archeological record, and some of the material indicators of factional competition in ancient societies. Of these, the one most strongly constituted in the material record at El Zotz was coalition building. In internally competitive societies, factions strategically ally themselves with other parties in order to overpower or out-maneuver their opponents, thus unusually large or frequent coalition building events signal mounting tensions within the larger system. In Postclassic Mixtec society, for example, marriage-alliances were deployed frequently and strategically as a means to build obligations and amicable relationships between kingdoms in the face of a turbulent political landscape (Pohl 2003; Pohl and Pohl 1994). However, in the absence of written records like those of the Mixtec, scholars look to material evidence of activities that were designed to build bonds.

A prime example of a coalition building activity is the feast that occurred at La Luna. The remains of a diacritical feast in Str. T1-11 at La Luna confirmed the presence of internal competition between elite lineages around El Zotz in the Late Classic. The ceramics from the feasting deposit contained an unusually high frequency of prestige vessels, indicating that the feast was intended to impress through cultural symbols rather than food quantities. Such features are characteristic of diacritical feasts, which are put on specifically to promote bonding between members of the upper echelon of society. Based on the ceramic types that stemmed from this deposit and the radiocarbon dates from the dedication of Str. T1-1, the feast occurred in the late seventh or early eighth century, slightly before or around the time that the Acropolis was renovated and the Northwest Courtyard and Las Palmitas were built. Although the temporal resolution is not strong enough to say how closely these activities occurred in time, it is not surprising that the political landscape around El Zotz became more competitive by the early 8th

century, as this coincides with general lowland trends regarding the rise of sub-royal figures in the Late Classic (see Figure 1). In this case it seems that to deal with the growing lot of local aristocrats the family at La Luna threw an exclusive event in order to foster alliances with certain parties. It is difficult to say who attended these feasts at La Luna, but it is highly plausible that the invite list included the Pa'ka'n royal family, nobles from Las Palmitas, or even elites from other sites.

The frequency of prestige vessels from household refuse and other contexts at La Luna indicates that the feast deposit from Str. T1-11 was not a rare event (Table 15). Instead, a high ratio of prestige vessels in the ceramic assemblages from different contexts at La Luna reflects the regularity with which the family at La Luna hosted feasts (Table 20). The people at La Luna hosted diacritical feasts more often than any other elite lineage group at El Zotz in the Late Classic, including the royal family, and thus were intensely invested in the political competition at El Zotz.

Factions may build coalitions by specifically developing ties outside of their own political institution with influential parties in other systems. To the aristocrats at Las Palmitas and La Luna this meant expanding their relationships with other courts and engaging in economic systems based in other regions. This process diversifies a community's economic assets and improves its overall resilience to regional turmoil such as natural disasters (Sen 1993; Hirth 1992; M.E. Smith 2015). Furthermore, building relationships with members of other ruling elite spheres can add to a lineage group's reputation and also justify power differentials by excluding those of lower status from similar relationships (Hirth 1992). This is perhaps best characterized in by the story of Lord 8 Deer in Postclassic Mixtec society, a ruler of Tilantongo who originated from a secondary class, but rose to power in part through the alliance he built with Lord 4 Jaguar of the Tolteca-Chichimeca, and the symbols of prestige that he adopted from their ruling

tecuhutli class (Pohl 1994). Foreign commodities are a good indicator of a family's external relationships and trade capabilities beyond local markets, thus the imports examined in chapter eight provide a useful means for examining external network building among the nobility at El Zotz (cf. M.E. Smith 2015).

Non-royal elites at Las Palmitas possessed many of the same political and economic relationships as the royal family at El Zotz. They had access to the same open networks for obtaining marine exotics, jade, local fine wares, and fine wares from the Upper Usumacinta region, and possibly cultivated personal ties with elites at Motul de San José. Moreover, the residents of Las Palmitas possessed a few trade contacts that branched into areas untouched by the royal family, including volcanic sources west of the Valley of Mexico and pottery workshops along the Tabasco Plains. Considering the size of the artifact sample from Las Palmitas, the outside relationships reflected by imports were very diverse, the richest of any residential group. At the very least, the nobility at Las Palmitas kept in step with the network building ventures of the Pa'ka'n monarchs.

Not to be out done, the sub-royals at La Luna developed relationships beyond those of the royal family and Las Palmitas. While residents of La Luna had access to the traditional, nearby sources for shell, obsidian, jade, and fine wares, they also enlisted trade contacts with access to fine wares from the Tabasco Plains, shell from the Pacific Coast, and obsidian from the Highlands both east and west of the Valley of Mexico. Notably, local versions of the fine ware trend (from the eastern Buenavista Valley) were not found at La Luna, signaling limited interest in procuring openly circulated items from nearby, instead favoring fine vases from more distant sources. This entrepreneurial spirit was not limited to publicly traded materials. The nobility at La Luna built exclusive relationships with the upper echelon of Classic Maya polities that even the royal family did not have ties to. While the nobility at La Luna nurtured their own

relationship with court of Motul de San José, they also connected with aristocrats from Altun Ha and El Perú-Waka'. The number of sherds from El Perú-Waka' was particularly high, signaling a uniquely close relationship between the nobility at La Luna and the court of Waka'. These imports demonstrate a wider range of economic and political networks than those exhibited anywhere else at El Zotz in the Late Classic.

Both of the secondary elite lineages at El Zotz that were identified in this study were well-networked. By hosting feasts with other aristocrats around El Zotz and engaging with external courts in the greater central Peten and northern Belize, the family La Luna built more local and foreign alliances than any other party at El Zotz. Similarly, elites at Las Palmitas maintained relationships in all the same economic circles as the royal family, and even built their own personal ties to the court of Motul de San José. Both high-powered lineage groups put great care into building strong relationships beyond the bounds of their polity, in a way that was not accessible to those below their station. Thus networking became a crux in the status of each noble family.

Network Building in Broader Maya Politics

The cases of Las Palmitas and La Luna are not the first instances where secondary elites either branched out to establish their own ties to outside polities, or sought items that would at least create that impression of worldliness. In the Late and Terminal Classic sub-royal lineage groups at Xunantunich possessed more foreign pottery than the royal family of the site (LeCount 1999). At El Perú-Waka', aristocratic lineages at the Tolok Group and Chakah Group possessed Late Classic dishes from Tayel Chan K'inich of Motul de San José (see Chapter 8), and from the "fiery lord of Pa'ka'n" (Eppich 2011). Notably, the bowl from El Zotz dates to the early Late Classic, the same time period when the Honey Yellow ceramic variety made at El

Perú-Waka' was acquired in large quantities at La Luna (see Chapter 8). These objects reflect an interest among Maya nobility in demonstrating relationships with outside rulers and exchange networks.

The *Lakam* of El Palmar: a case study in working external networks

A particularly remarkable scenario at the site of El Palmar in Campeche (different from the previously discussed El Palmar in Guatemala) clearly demonstrates the desire among non-royal elites to establish ties to external courts. The Guzman Group at El Palmar, Campeche is a monumental residential group, 1.3 km from the site core (Tsukamoto et al. 2015). A hieroglyphic staircase at the main temple of the complex describes the family that lived there, and the commissioner/owner of the temple, Ajpach' Waal, a *lakam*s of El Palmar.

Based on iconographic and scant textual evidence, *lakam*s are referred to as standard-bearers because this is how they are frequently portrayed in scenes on Maya vases. They often accompany warriors in military scenes or bring tribute in palace scenes (Lacadena 2008). Depictions of *lakam*s in palaces do not show them in ceremonial dress or embellished with jewelry; instead they wear minimal garb and typically fall into the "general attendant" category of figural characters (see Chapter Two). Moreover, *lakam* are infrequently mentioned in Classic Maya texts. All of this is to suggest that the role of *lakam* was less consequential than other sub-royal offices such as *sajal*s and *ajk'uhuun*s, which are illustrated and recorded with much greater detail. Contrary to these representations, the residents at the Guzman Group were undoubtedly influential and affluent. The family enlisted laborers to build a vaulted temple and vaulted multi-room structure with a throne-like bench for public and private functions (Tsukamoto et al. 2015). Burial 1 under the main temple of the Guzman Group housed a male with jade and pyrite dental inlays, both signs of high status, and two polychrome vases.

The inscription on the hieroglyphic staircase describes the genealogy of Ajpach' Waal, specifically the paternal line of *lakam*s from which he descended, and his exploits as a representative of the court of El Palmar (Tsukamoto et al. 2015). According to the text, the stairs were assembled three months after Ajpach' Waal traveled to Copan to meet with the king Waxaklahuun Ubaah K'awiil (around AD 726). The stairs were commissioned to commemorate this event, but details in the text reveal a political agenda as well. Despite being the *lakam* for the ruler of El Palmar, Ajpach' Waal only mentions his king once, at the end of the text. In contrast, Ajpach' Waal asserts his political relationship with Copan repeatedly, naming himself as the *uch'an* (possibly translating to "guardian") of Waxaklahuun Ubaah K'awiil (Tsukamoto et al. 2015). The *lakam* also mentions the monarch of the Snake Kingdom hegemony, Yuknoom Took' K'awiil, indicating that El Palmar fell under the domain of the Snake Kingdom in the early 8th century. The inscription ends with another royal title of Copan.

From this text archaeologists infer that the Snake Kingdom used El Palmar as a liaison to establish friendly relationships with Copan (Tsukamoto et al. 2015). This suggests that the role of *lakam* may have been more complicated than an organizer of tribute and troops. Instead, the *lakam* may have been a diplomat or ambassador, one who might travel with physical gifts and tribute, but who could also pass information and affirm relationships between polities.

From a domestic affairs perspective, the hieroglyphic staircase also offers insights into the internal politics of the Maya court. In the text Ajpach' Waal is clear that his lineage is tied to the court of El Palmar, however he emphasizes his connection to the king of Copan and the Snake King rather than the king of El Palmar. Scholars at El Palmar interpret this as a calculated decision, where the *lakam* allies himself with more powerful foreign kings in lieu of his own king, who was not as influential as those of Copan or Calakmul in regional politics during the Late Classic (Tsukamoto et al. 2015).

Moreover, Ajpach' Waal spends significant space establishing his esteemed *lakam* ancestors, and affirms multiple times that he himself commissioned the stairs, rather than receiving them as a gift from the ruler of El Palmar. These points emphasize the prestigious lineage and personal resources and influence of Ajpach' Waal. Such inscriptions are somewhat subtle acts of self-aggrandizing that are not traditionally seen from non-royal courtiers, yet the acts themselves do not clearly violate Maya social structures. It is worth noting that the monumental architecture and overall affluence exhibited at the Guzman Group corroborate the statements made by Ajpach' Waal regarding the status and power of the lineage.

The hieroglyphic stairway at the Guzman Group is a clear example of how non-royal members of Maya courts used relationships with royals and nobles from other kingdoms to bolster their own status at home. Honing and advertising bonds with powerful foreign figures was a successful strategy for aristocrats to advance their social and political station within the Maya court system. Moreover, the way that Ajpach' Waal emphasized himself over any other member of the El Palmar court demonstrates a play for self-interest over complete subservience to his king, suggesting that lower elites could indeed prioritize personal agendas over the greater good of the monarch. These behaviors reaffirm that courts were not unified bodies, but only appeared as such through the "official" court records.

Kaloomte' Bahlam: a possible success story

The case of the *lakam* at El Palmar, Campeche demonstrates how Classic Maya sub-royals utilized external networks to enhance their position in their own polity. On the other hand, foreign relationships may have represented opportunities for promotion and social climbing at outside courts as well. A series of historical events at Tikal suggests that foreign nobility could be used to stabilize longstanding Lowland Maya dynasties in the Late Classic.

The early 6th century at Tikal is referred to as the "troubled Middle Classic" (Martin and Grube 2008: 38) because there was a series of unconventional transitions of power following the death of Chak Tok Ich'aak II, suggesting that Chak Tok Ich'aak II lacked a clear male heir, or that there was a struggle for power between heirs (Martin 2003). As a stopgap measure, Chak Tok Ich'aak II's young daughter, the Lady of Tikal, was promoted as a dynastic stand-in and associated alongside other males who acted as regents. Sometime before AD 527 Kaloomte' Bahlam was selected to be the consort of the Lady of Tikal. Although the Lady of Tikal possessed the *ajaw* title, she was never named in the Tikal list of kings (Martin and Grube 2008). Instead, Kaloomte' Bahlam is referred to as the king of Tikal from this time. The introduction of a biologically unrelated (or distantly related) male into the Tikal dynastic line is highly unusual, however it appears that Kaloomte' Bahlam came with an impressive resumé as a warrior who mounted attacks against the kingdom of Maasal in AD 486 (Martin and Grube 2008).

The residence of the lineage group resulting from Kaloomte' Bahlam and the Lady of Tikal (Group 7F-1) was identified outside of the Tikal site center (1.25 km south of the Great Plaza), originally labelled a "minor center" because of its monumental architecture (Bullard 1960; Haviland 1981). The royal couple was buried at Group 7F-1, outside of the Tikal core, further underlining the unusual circumstances of their reign. Despite the location, life at Group 7F-1 was still lavish, and the elaborate burial of Kaloomte' Bahlam mimics the royal graves in the North Acropolis, with a painted bedrock chamber underneath a large mortuary temple (Haviland 1981; Wright 2012). Surprisingly, strontium and oxygen stable isotope analyses on the suspected remains of Kaloomte' Bahlam demonstrate that he was not from Tikal. Instead, it appears that Kaloomte' Bahlam grew up in the northern Lowlands (Wright 2012). This information, combined with his military exploits in the late 5th century, suggests that Kaloomte'

Bahlam was a noble from another polity in the Maya Lowlands who was brought to Tikal to marry into the dynastic line. Although Kaloomte' Bahlam was clearly of high status before tying himself to the Lady of Tikal, he was most likely not a reigning monarch at another polity, as there is no example in Maya history so far where a king moved polities to rule over a different site. The non-local origins of Kaloomte' Bahlam indicate that nobles from other places of origin could attain higher titles by seeking opportunities at other courts. Furthermore, the foreign roots of Kaloomte' Bahlam may also explain why his descendants did not live at the core of Tikal, but established their own monumental residence upon his passing. Notably, strontium and oxygen stable isotope analyses revealed that other high-status foreigners lived in elite residences outside of the site center of Tikal as well (Wright 2012).

Little is recorded about Kaloomte' Bahlam before he took royal office. This would be in keeping with patterns of the central Peten, where sub-royal elites were rarely acknowledged (see Chapter Two). Moreover, the fact that Kaloomte' Bahlam did not use parentage statements linking himself to other royalty (local or foreign), which was occasionally done by rulers to justify their status (Martin 2020), further supports the proposal that Kaloomte' Balam came from a non-royal family, who typically would not receive acknowledgement in inscriptions.

If Kaloomte' Balam was a member of the secondary elite, his story reflects an exception to the normal rules of Maya governance. Although it is an extreme and rare example, his political rise demonstrates the potential reward for non-royal elites to build bonds with outside polities. A working relationship with foreign courts and a willingness to move to other sites offered rare opportunities for upwards mobility. In the case of Kaloomte' Bahlam, a sub-royal broke into the most socially exclusive and politically powerful office in the Classic Maya society. Although his tale is highly unusual, it offers insight into why nobles might seek out close relationships with rulers at other courts rather than the ruler in their own court.

Conclusion

This dissertation aimed to identify factions within the political system at El Zotz. This was done by first identifying which architectural groups at the site were occupied by secondary elite families, and then determining what strategies these families pursued, if any, to compete in the political landscape around El Zotz. Lineage-groups were categorized as politically influential members of the court, i.e. elite courtiers, or non-elite courtiers based on their construction and daily practices. The Northwest Courtyard was found to be the home of non-elite courtiers, most likely staff for the royal palace, while Las Palmitas and La Luna were determined to be homes of secondary elites around El Zotz. The labels selected for each group were further justified in an examination of ritual activities and connections to the outside world. It was in these two categories that political strategies also emerged in the data; both sub-royal families wielded ritual symbols referring to dynastic power as a means of conveying their own status, and built a web of economic and diplomatic connections outside El Zotz to bolster their own influence through outside means.

The clearest avenues for gaining non-royal power within the political structure at El Zotz were through ritual domination, be that through shamanistic ventures or universal symbols, and external networks. Unfortunately, the chronology is not fine enough to identify statistical distinctions between practices at each residential complex in the Late Classic versus the Terminal Classic. Based on ceramics La Luna and Las Palmitas were occupied past the abandonment of the Acropolis, so in a sense the strategies of these families were more successful than those of the royal family. In particular, foreign trade and external political relationships have been shown to increase a community's chance of survival in the case of natural disasters, and certainly in the case of the Maya where coastal sites with access to trade

routes outside the Peten survived through the Postclassic and even into the Colonial period (Sens 1993; Andres and Pyburn 2004). Second-tier elites continued to occupy their residences past the point of when royal families left at many sites in the Terminal Classic (Palka 1995; Valdés and Fahsen; Demarest 1997; Webster et al. 2004). It is possible that in pursuit of prestige within a defined system, the Classic Maya nobility found themselves better positioned to handle the dissolution of the system. Studies regarding the overall ebbs and flows of political stability and wealth at individual polities have found that the prosperity of non-royal lineages are not tied to the prosperity of the royal dynasty (Eppich 2011).

This may be due to the original social contract that Classic Maya kingship is based on; kings were supported by their populace as long as they successfully negotiated with the gods on behalf of their people (Iannone 2016). Many of the rituals performed by kings were related to fertility and agriculture, illustrating how heavily ancient Maya society depended on the success of the annual harvest (Houston and Stuart 1996; Taube 2005; Estrada-Belli 2006; Moyes et al. 2009; Ishihara 2008). If drought and warfare (among other possibilities) diminished the survival and prosperity of the populace, then confidence in the king's ability to fulfill his social contract would wane, and the surrounding population would cease to support their monarch (Iannone 2016). Other influential members of the court, however, did not necessarily provide supernatural benefits to their surrounding population. Administrators provided more tangible and immediate services, organizing lineages into larger communities and carrying out managerial tasks to maintain local infrastructure. Some of these duties may have still benefited the farming families that remained around royal centers in the Terminal Classic. Moreover, given their intermediary role, secondary elites interacted with commoners on a personal level more so than the king. These interactions would have generated and reinforced concepts of status and hierarchy between commoners and secondary elites (Bourdieu 1977). It is possible that the social

relationship between lower elites and non-elites that was established during the Classic period continued briefly in the Terminal Classic without the presence of a king because of the history of interaction between these two groups.

It is interesting that the aristocrats at Las Palmitas and La Luna both tapped into dynastic symbols of power since their construction in the Late Classic. The jungle cat dedication deposit at Las Palmitas and the esoteric images and practices at La Luna are both restricted forms of symbolism. Across the Maya Lowlands jaguars are generally restricted to royalty, while locally at El Zotz themes of *wahy* and sacrifice are exclusive to royal contexts, with the exception of La Luna. The deployment of these power sources could be interpreted as the elites at Las Palmitas and La Luna posturing for political power and asserting their own ties to the Pa'ka'n dynasty. Such a narrative would be in keeping with the larger political changes that appeared in the Petexbatun, the Usumacinta region, and Copan in the Late Classic. Moreover, the fact that the family at La Luna acquired prestige goods from courts and networks that the royal Pa'ka'n family did not have contact with and kept these goods for themselves suggests that secondary elites did prioritize personal gains over the royal family sometimes, particularly in ways that were minimally offensive but also strategically useful. All of this is to say that the political players in the Pa'ka'n court system did not blindly follow their king, but pursued their own self-interests in calculated ways. Such behavior reflects the agency and careful negotiations of factions within the Pa'ka'n court.

The above research demonstrates how the enigmatic category of Maya secondary elites can be identified archaeologically in the absence of texts, and the competition that existed between these lower elites. Given the relative size of El Zotz as a royal center, it is only imaginable how the competitive tension in a political system would multiply in larger and wealthier urban centers like Tikal, Calakmul, Copan, and Caracol. The case of El Zotz

demonstrates that no matter the size or wealth of the kingdom, where there are rulers there are parties below the ruler that will vie for the limited political space available. Sub-royals are a useful social unit of study to better understand the intricacies of Maya foreign affairs and trade networks, and political strategies that may not have been publicly announced on monuments.

FIGURES

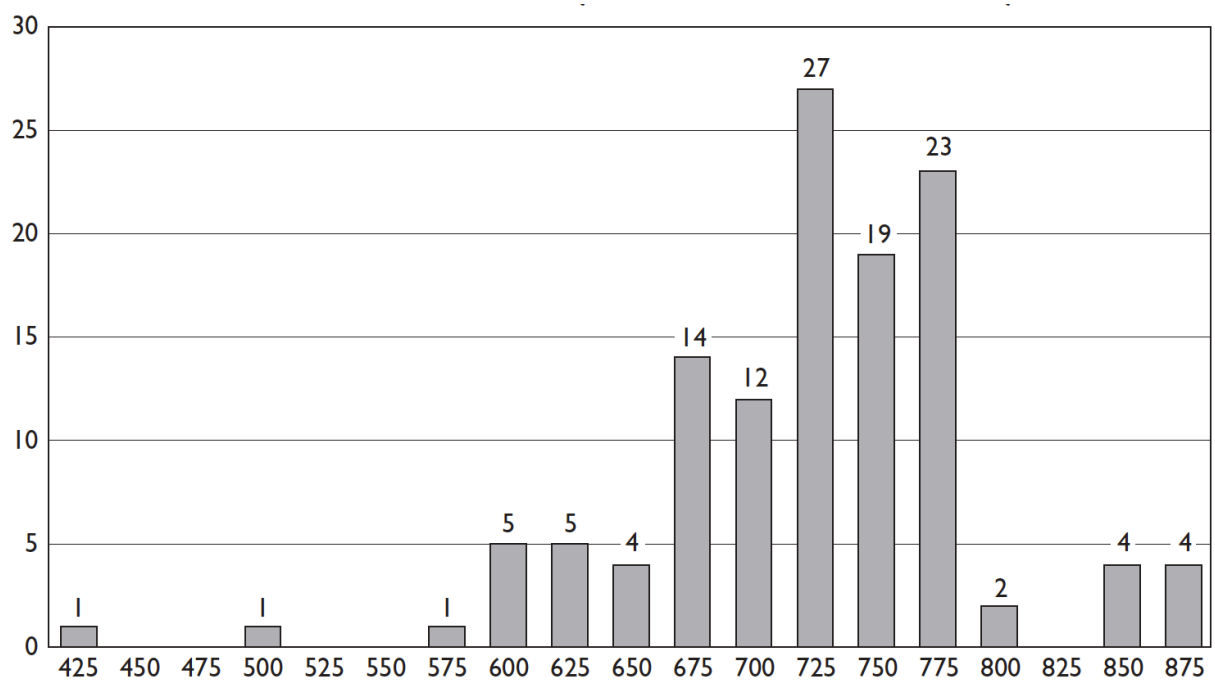


Figure 1: Distribution of all nonroyal elite titles on Maya monuments over time (in years AD). Taken from Jackson 2013:83



Figure 2: Scribe on bench painting or carving mask, supernatural scribe on floor in front of conch shell paint pot (Kerr - K0717)



Figure 3: Scribal god instructing students with codex (Kerr - K1196)

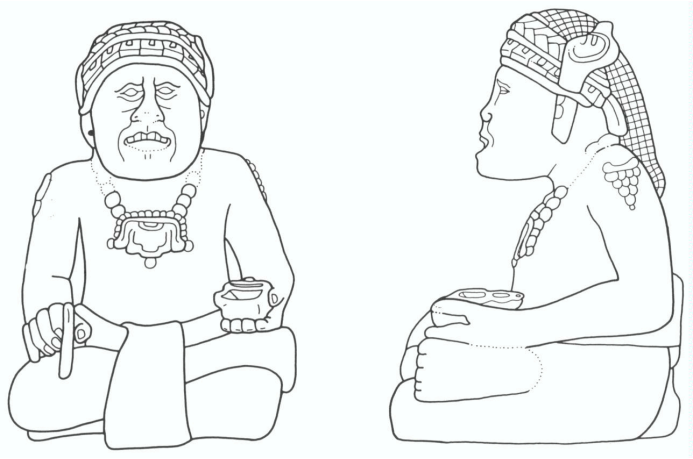


Figure 4: Sculpture of scribe with paint pot and stylus, associated with Str. 9N-82 2nd (Fash taken from Webster et al. 1989)

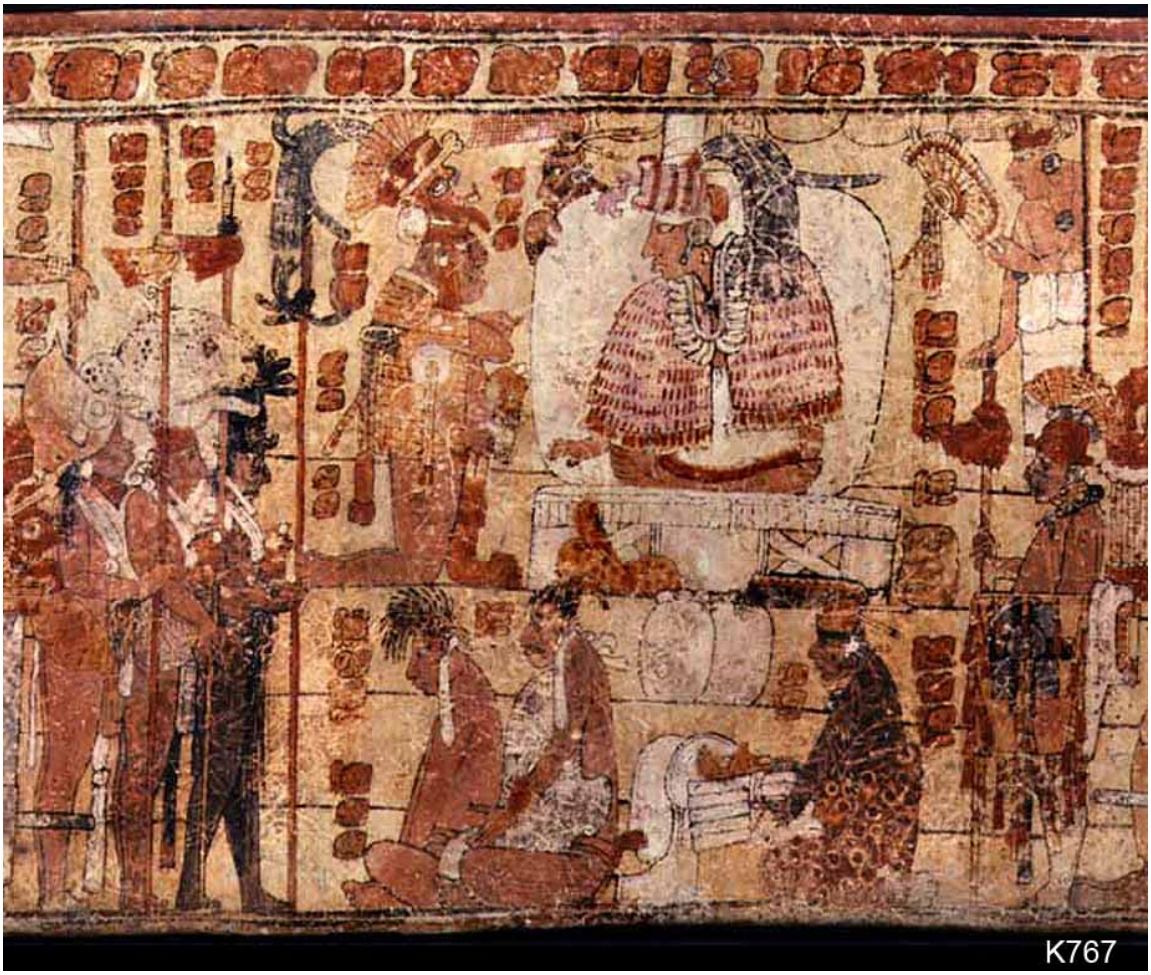


Figure 5: Presentation of captives (below) with warriors standing to the left of the throne, attendant to the right of the throne (Kerr - K0767)



Figure 6: Warriors presenting captives and tribute (Kerr - K4549)



Figure 7: Musicians in court scene (Kerr - K1210)



Figure 8: Court scene with hunchback, dwarf, attendant behind throne, and musicians out of frame (Kerr - K1453)

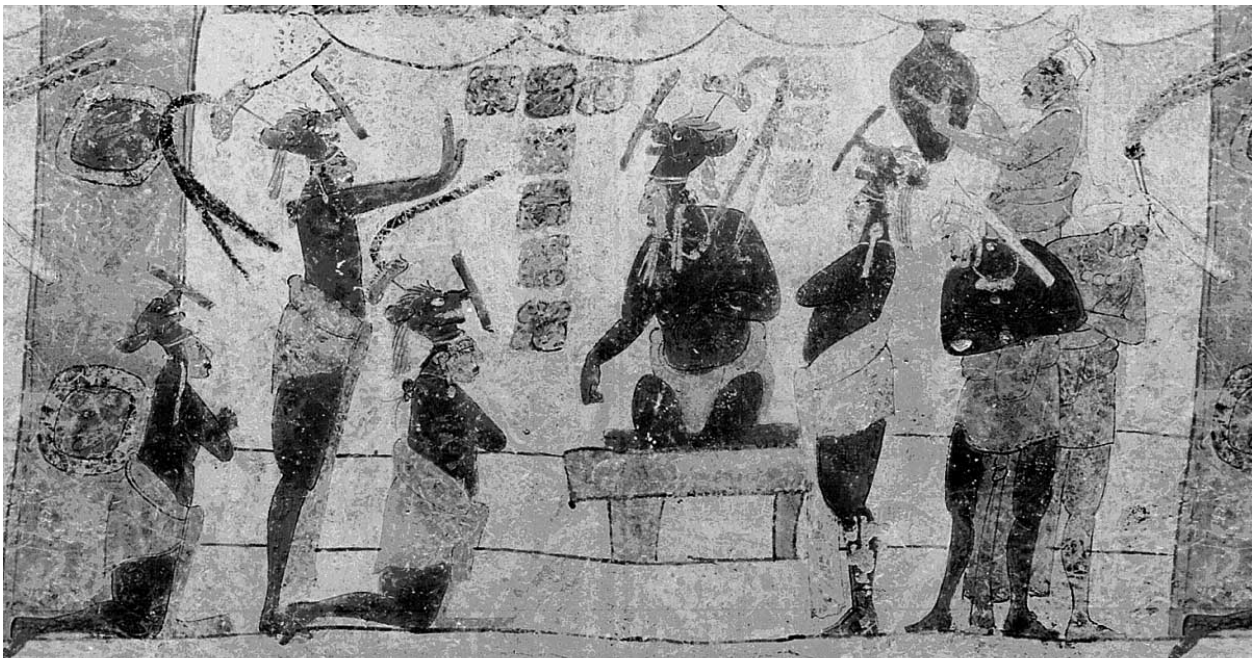


Figure 9: Group of elites in court scene (Kerr - K6688)



Figure 10: Group of elites in court scene (Kerr - K558)


Figure 11: Group of elites - Bonampak Room 1 (Elelicht, Wikimedia).



Figure 12: Elites to the left of king and attendants to the right of the king (Kerr - K4825)



Figure 13: Elites and performers in front of the throne, attendant behind the throne (Kerr - K6315)



Figure 14: Los Sabios Murals (After Saturno et al. 2017 figure 4 by Heather Hurst)

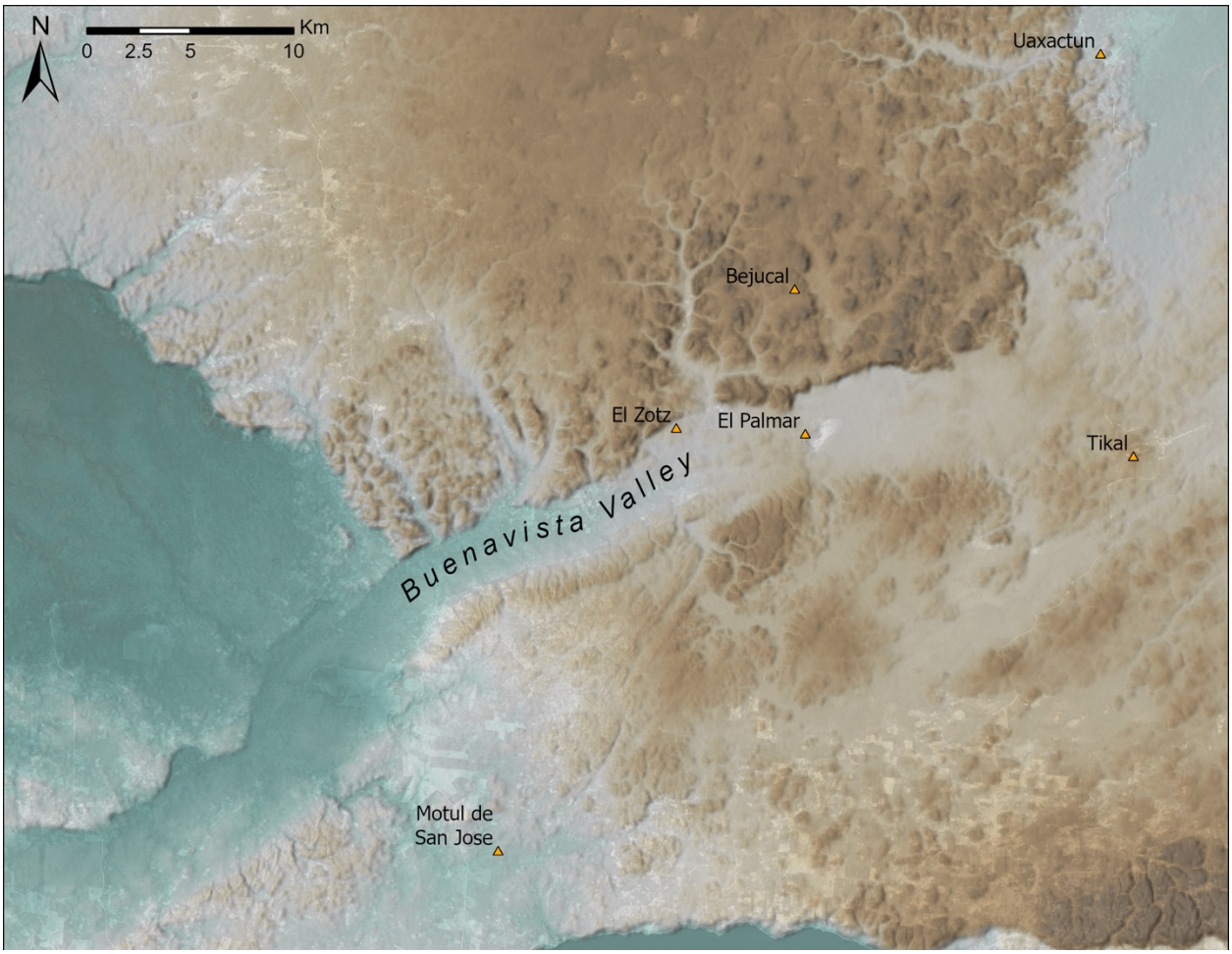


Figure 14: Map of the Buenavista Valley (Garrison)

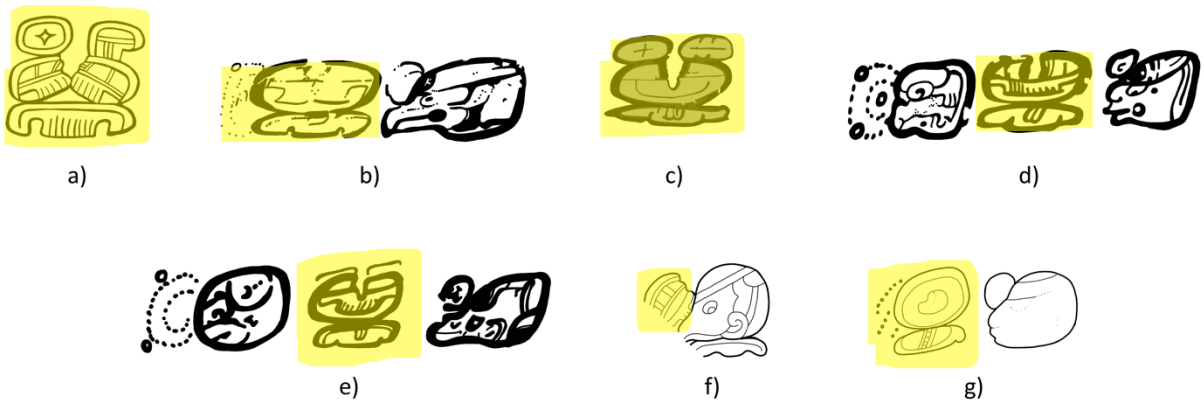


Figure 15: El Zotz Emblem Glyphs (a-f Split Sky emblem, g Earspool emblem) (Houston from Houston et al. 2018)

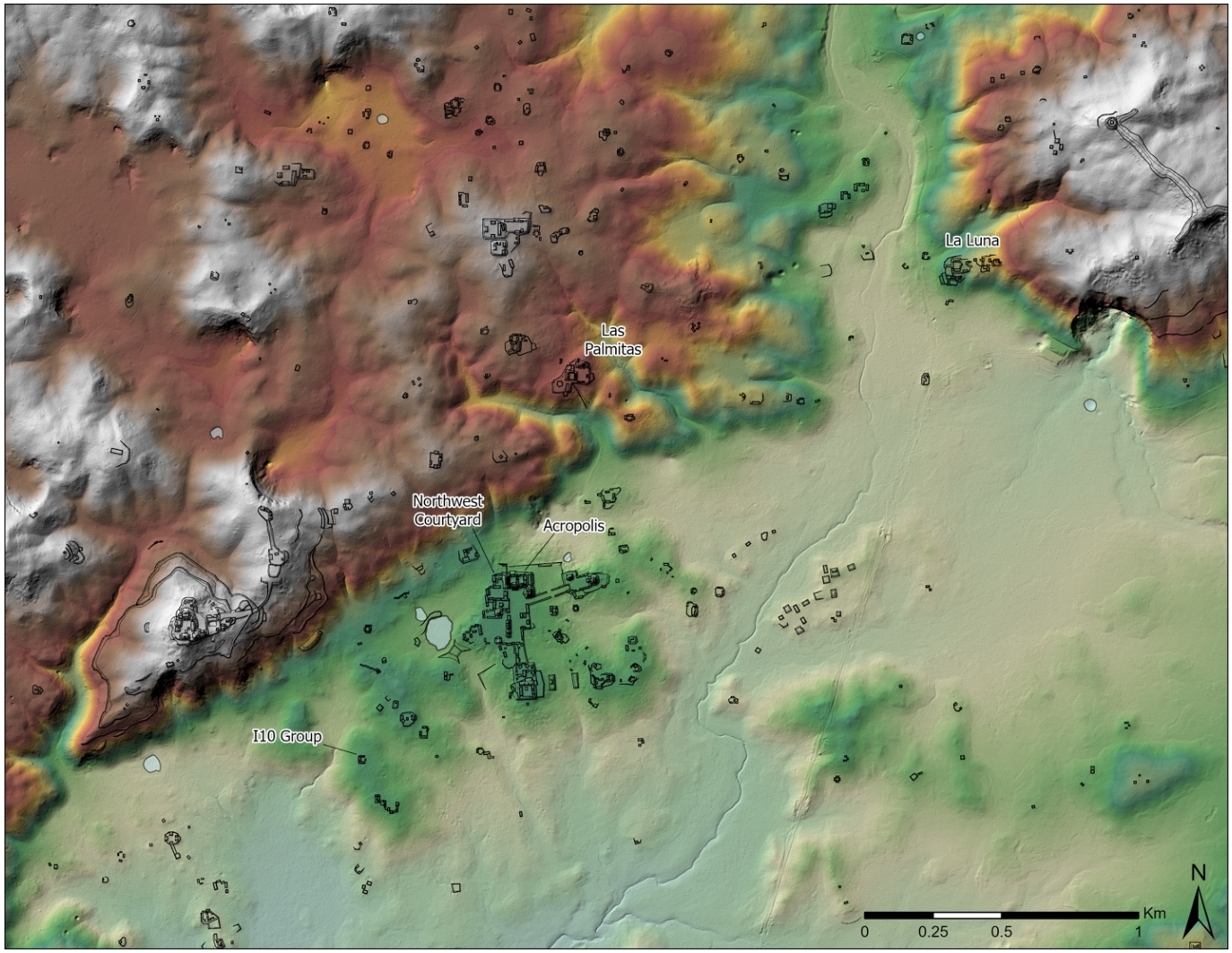


Figure 16: Map of El Zotz with residential groups discussed (Garrison)



Figure 17: The Acropolis and the Northwest (Garrison)

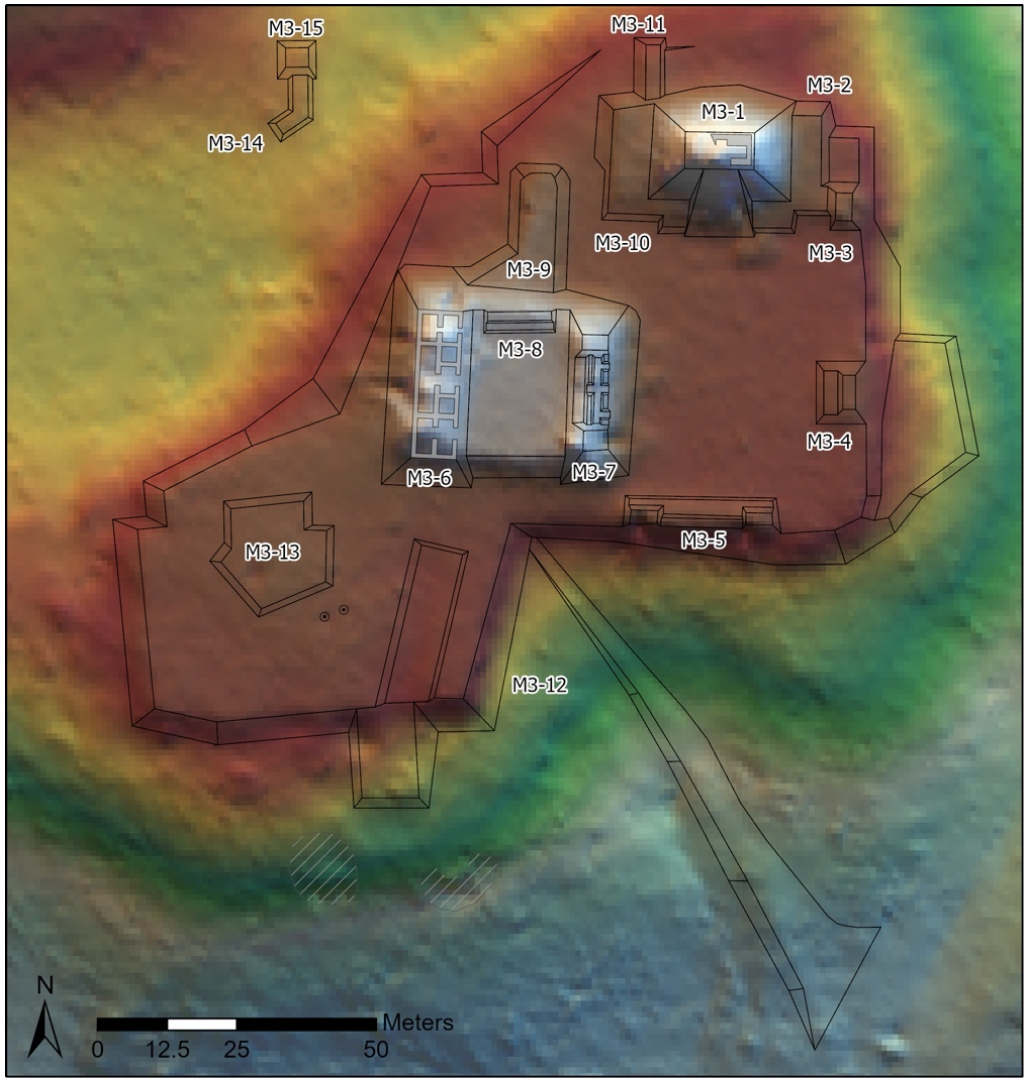


Figure 18: Map of Las Palmitas (Garrison)

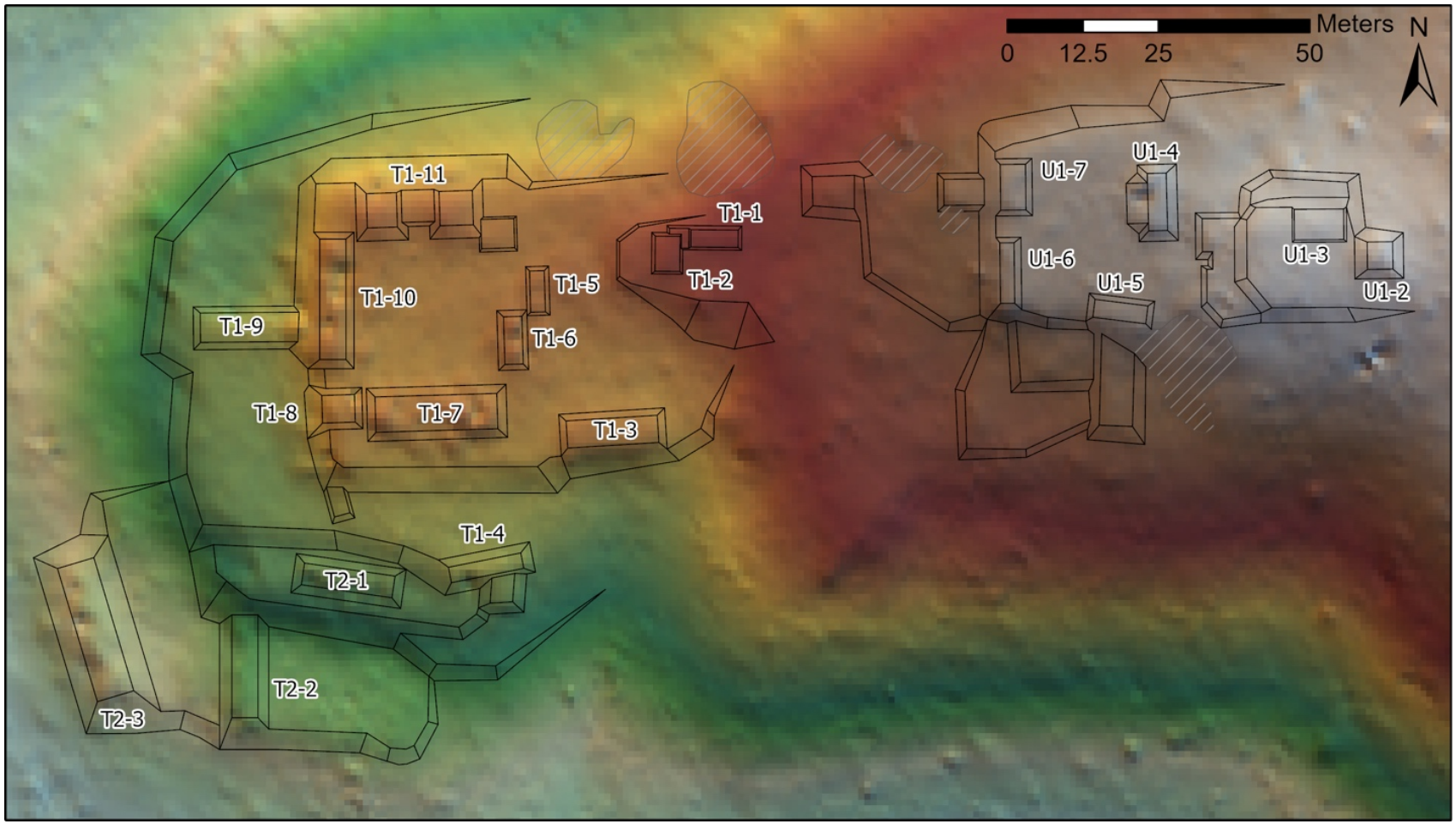


Figure 19: Map of La Luna (Garrison)

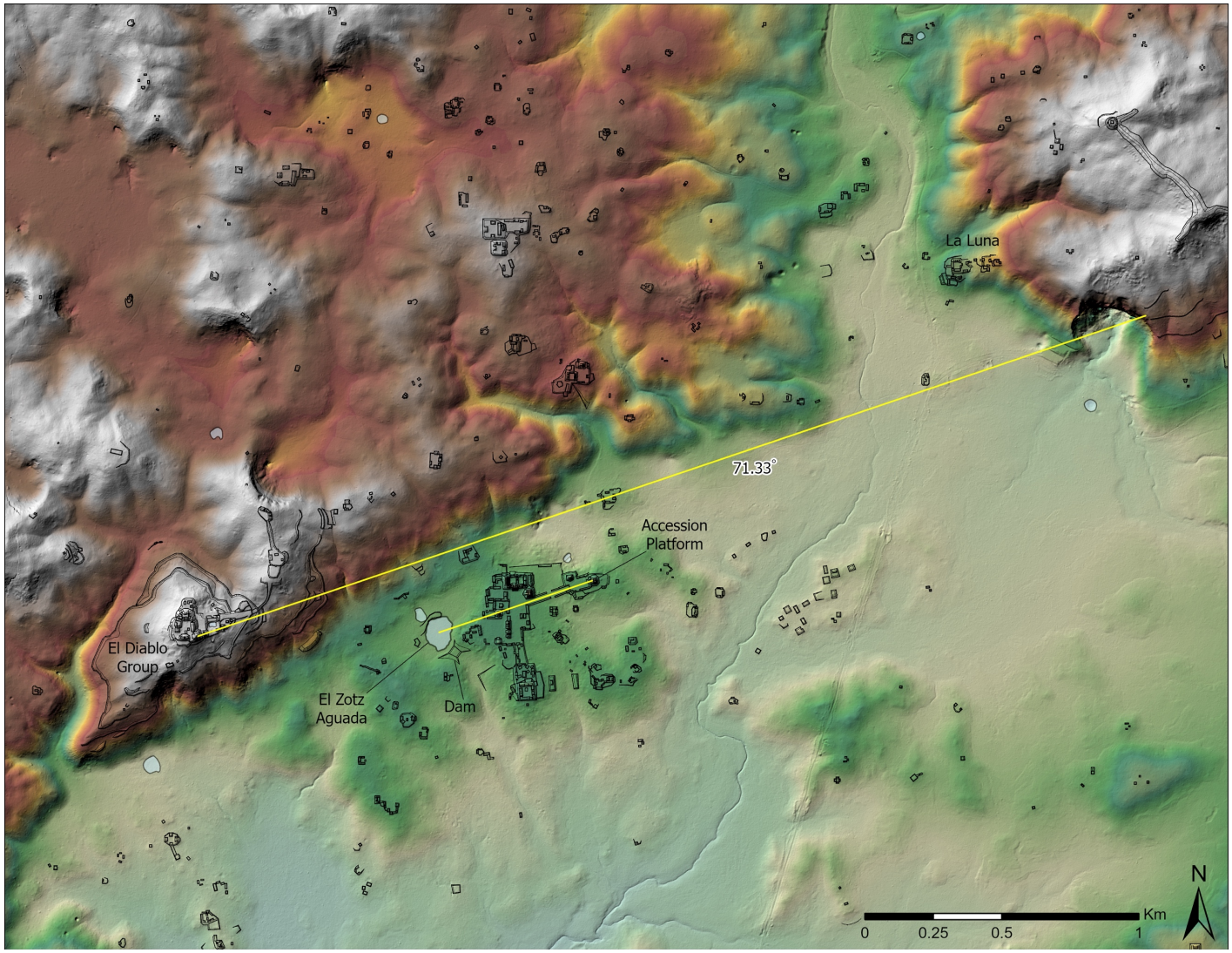


Figure 20: Orientations between architecture at El Zotz and the natural landscape (Garrison).

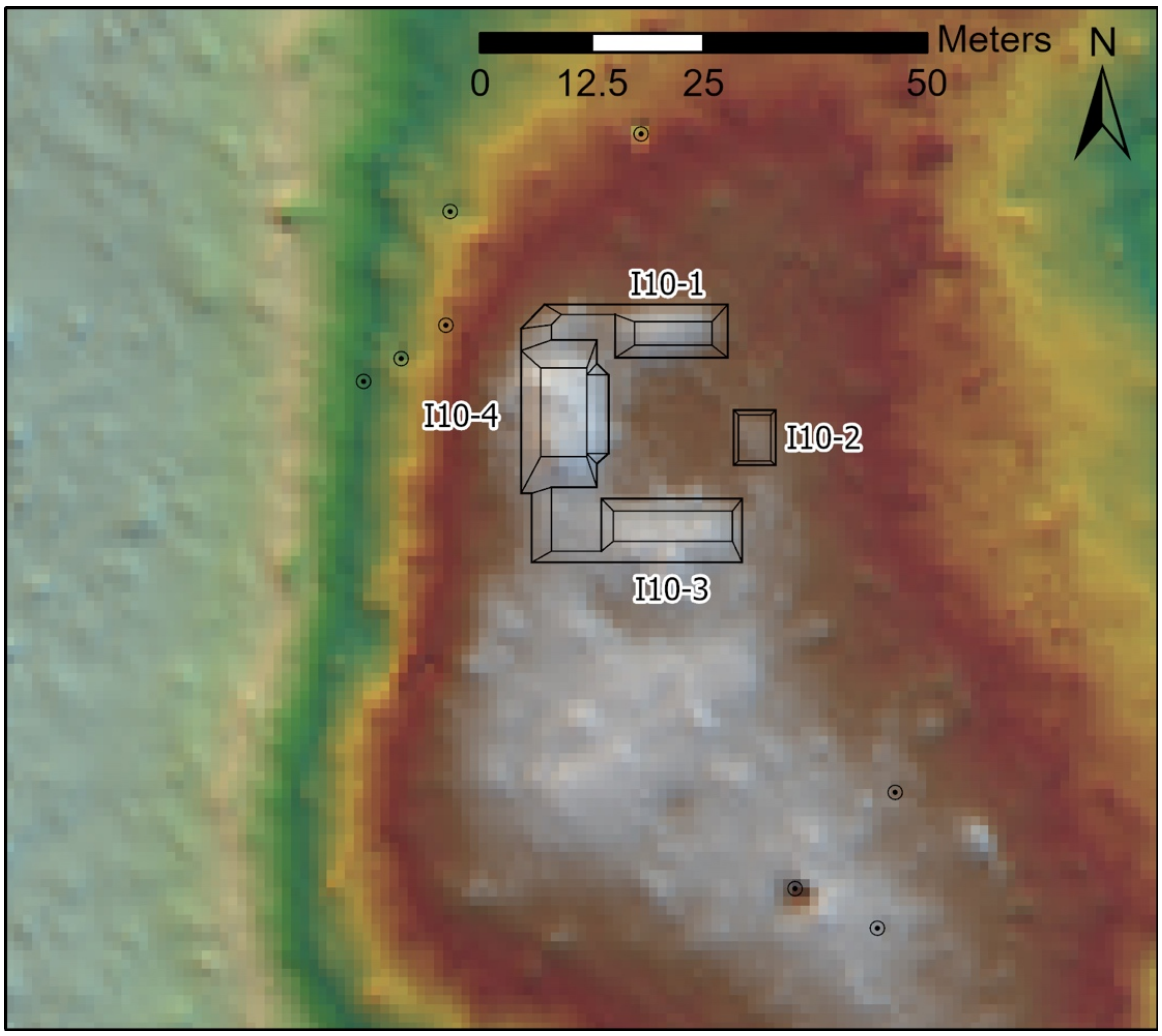


Figure 21: Map of Group I10 (Garrison)

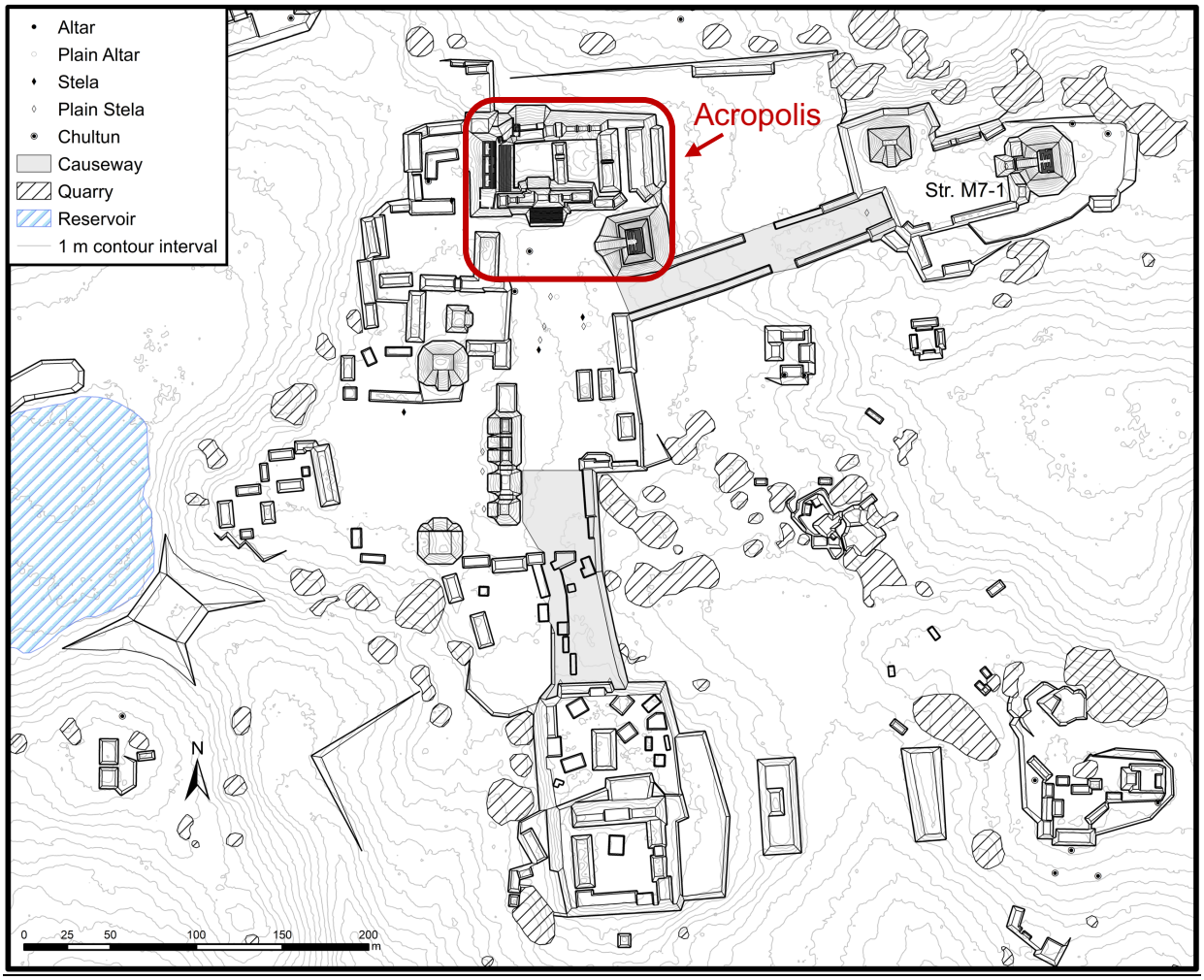


Figure 22: El Zotz site core (Garrison)

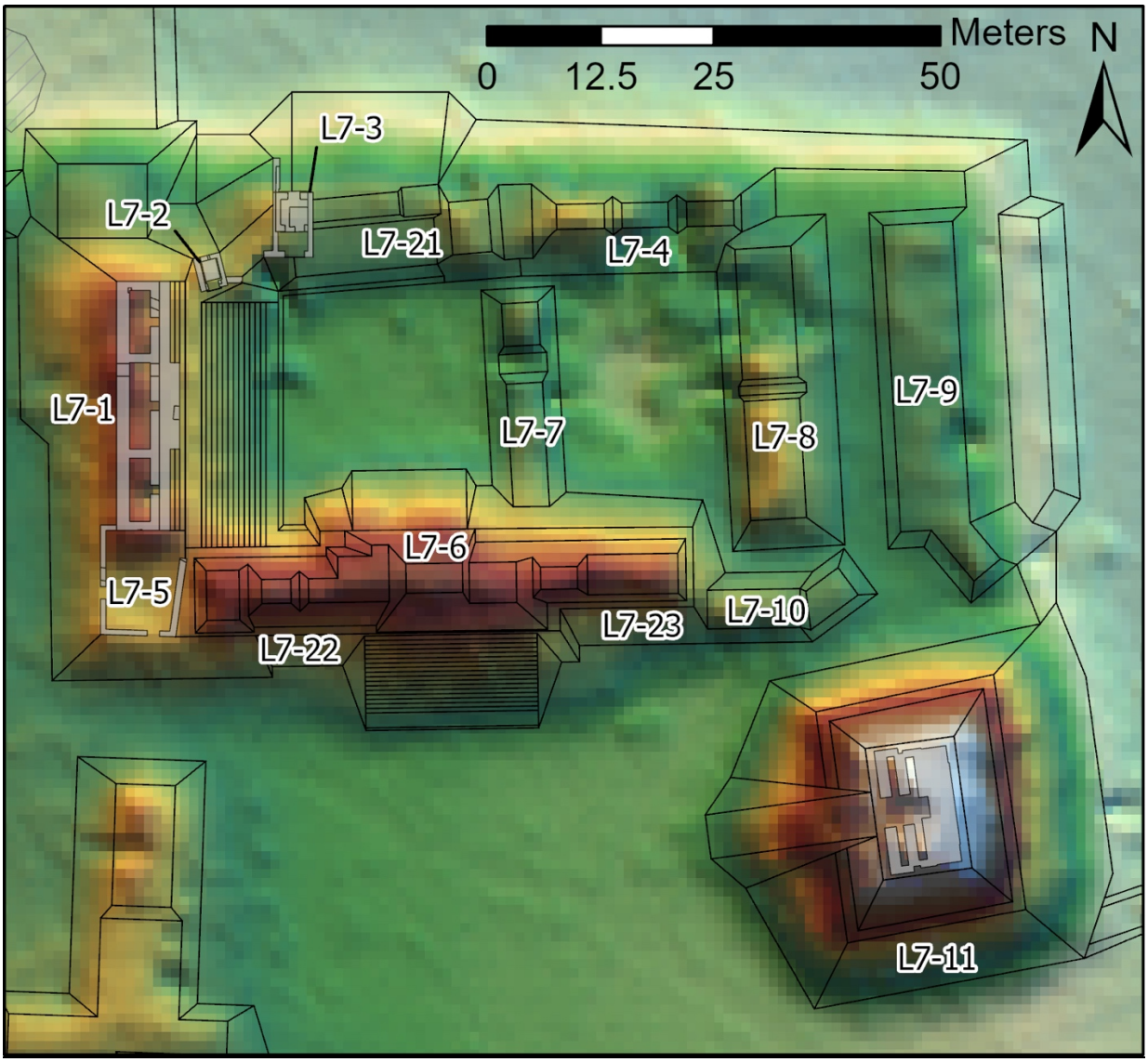


Figure 23: Map of the Acropolis (Garrison)

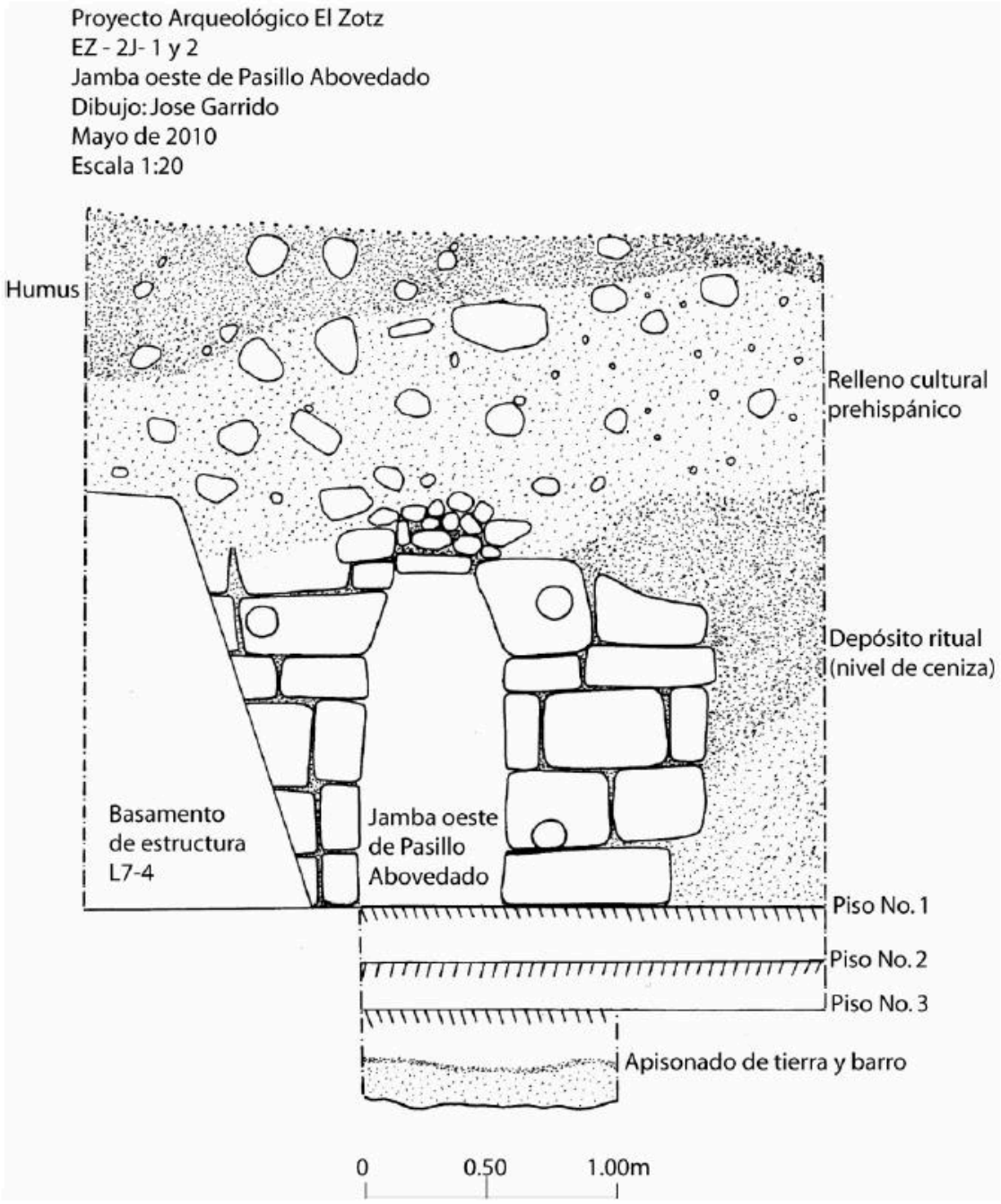


Figure 24: Monumental architecture at the Acropolis - Str. L7-8 with vaulted passageway (Garrido)

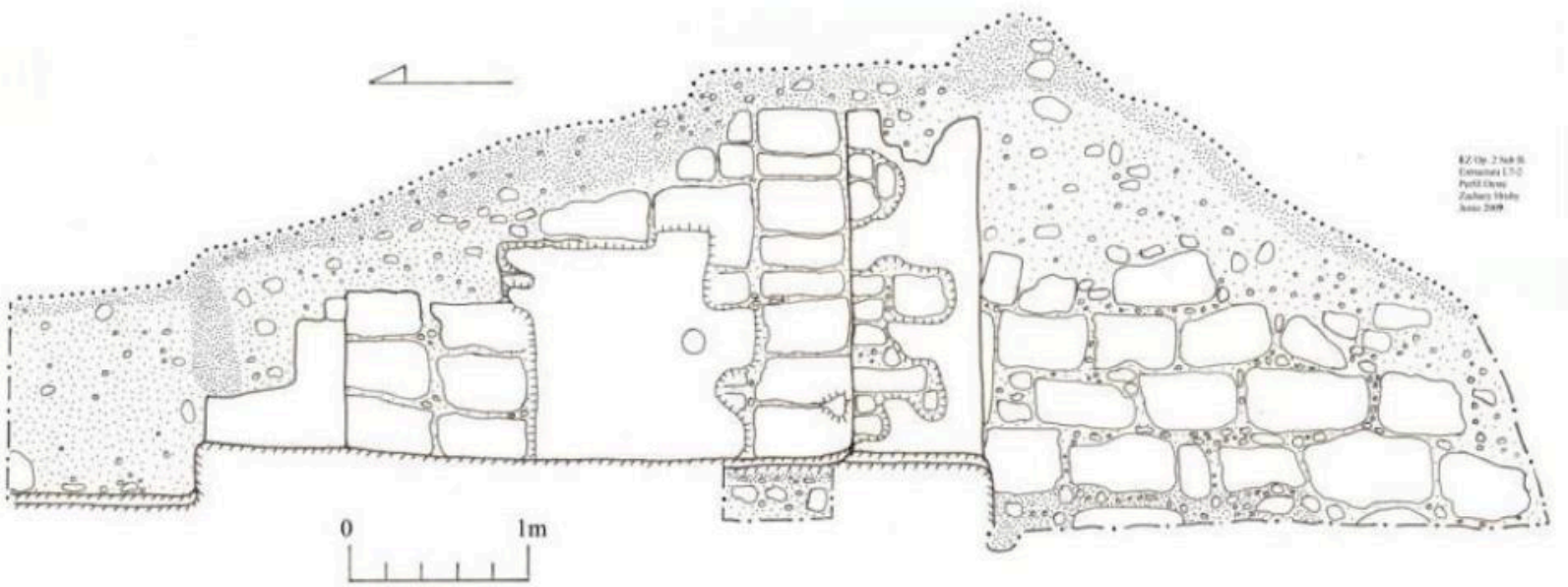


Figure 25: Monumental architecture at the Acropolis - Str. L7-2 (Hruby)

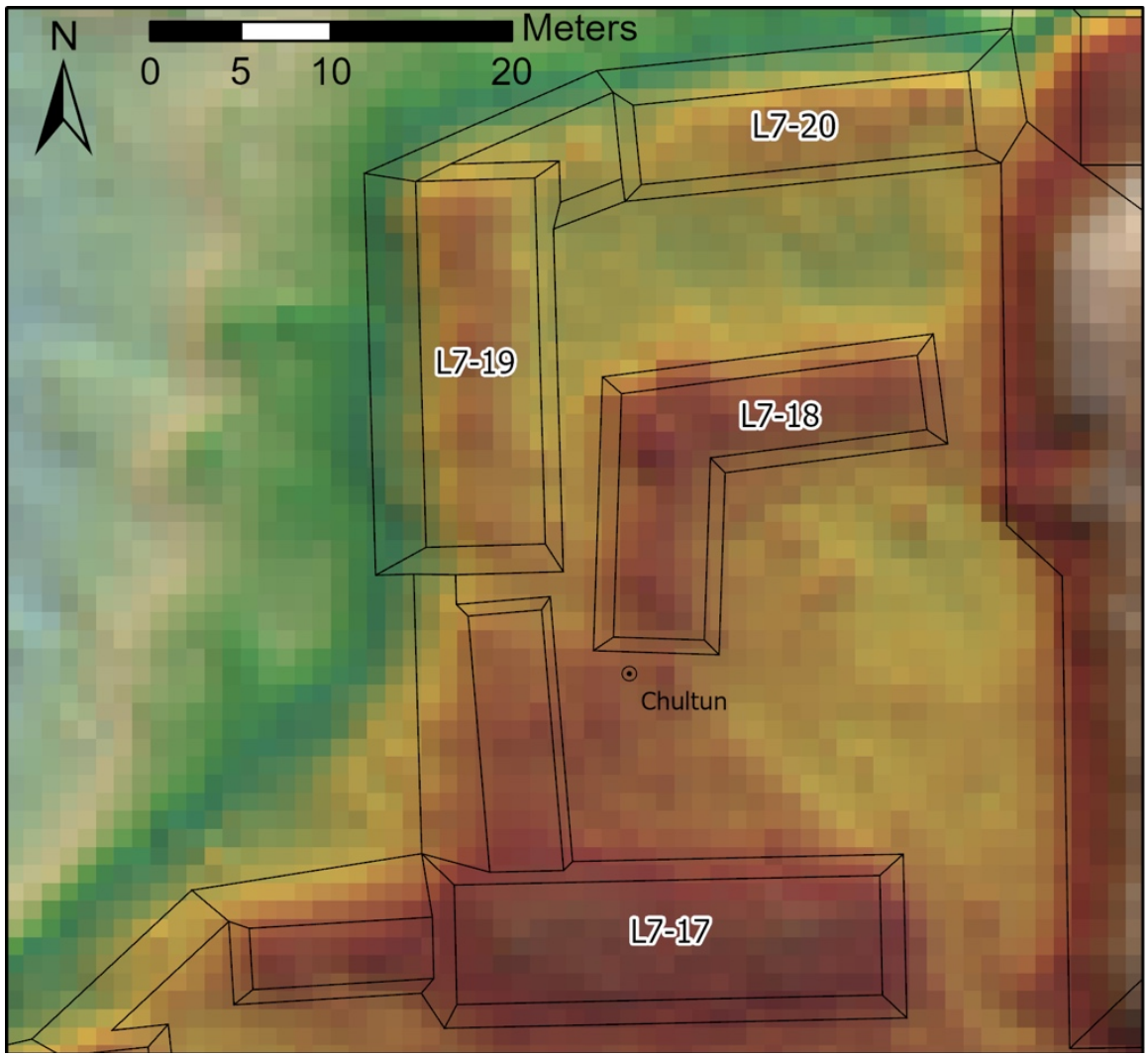


Figure 26: Map of the Northwest Courtyard

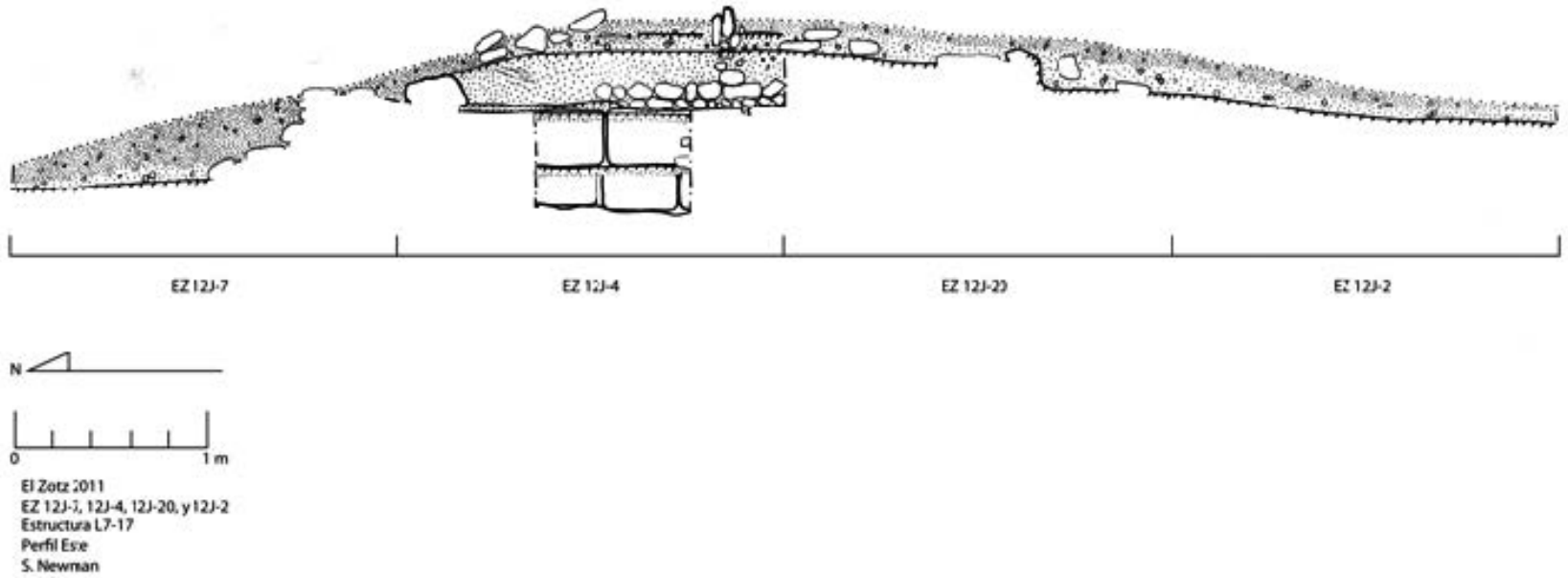


Figure 27: Improved architecture at the Northwest Courtyard - Str. L7-17 (Newman)

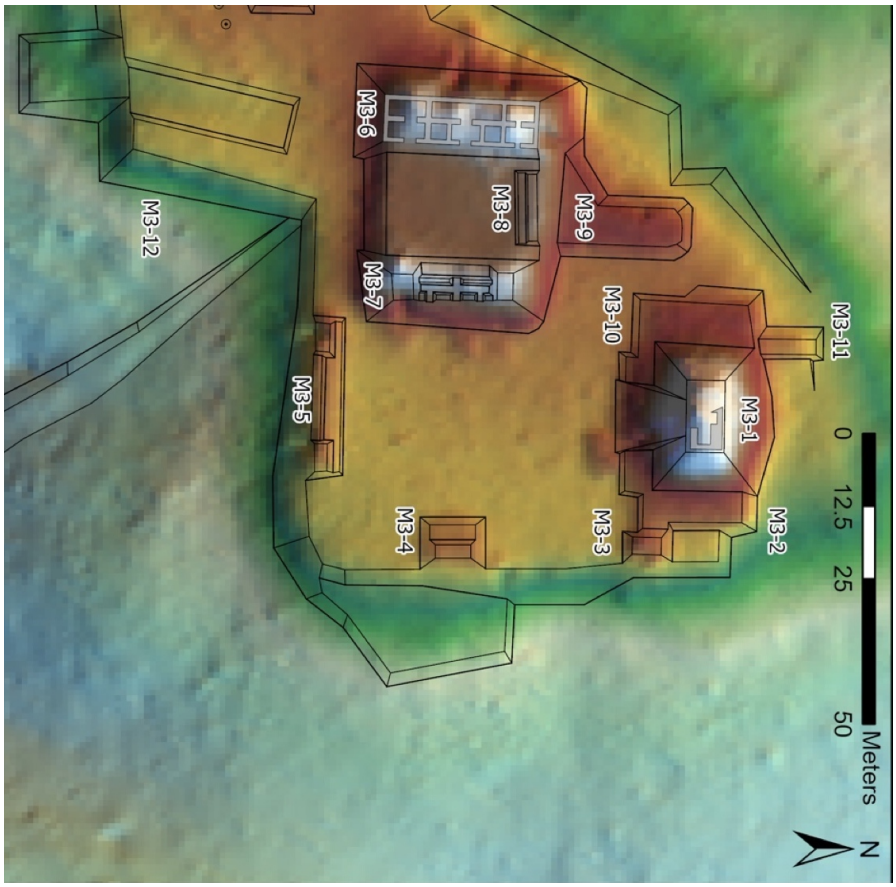




Figure 28: Comparison of the layout of Las Palmitas and the Acropolis

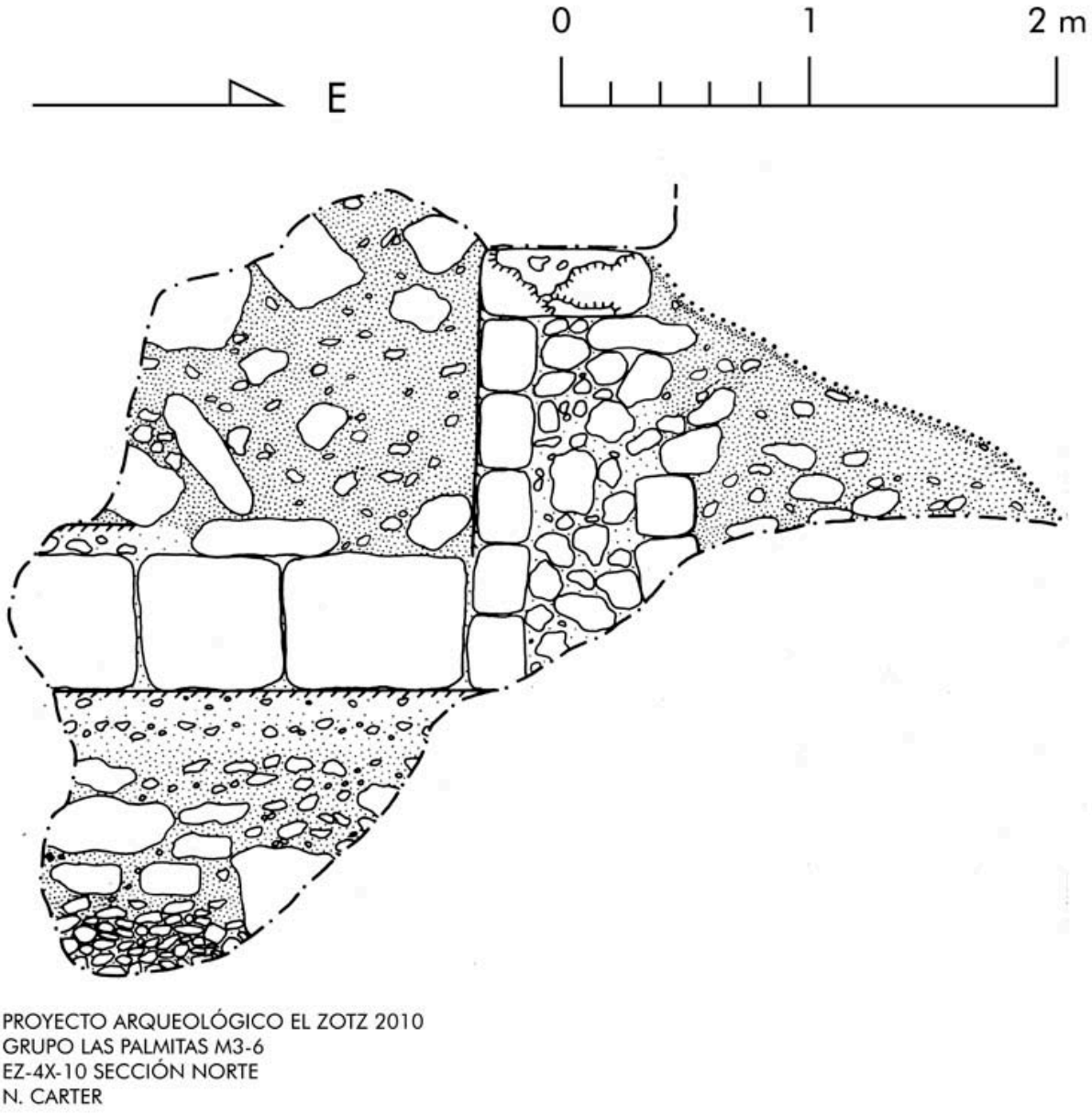


Figure 29: Monumental architecture at Las Palmitas - Str. M3-6 Palace structure (Carter)

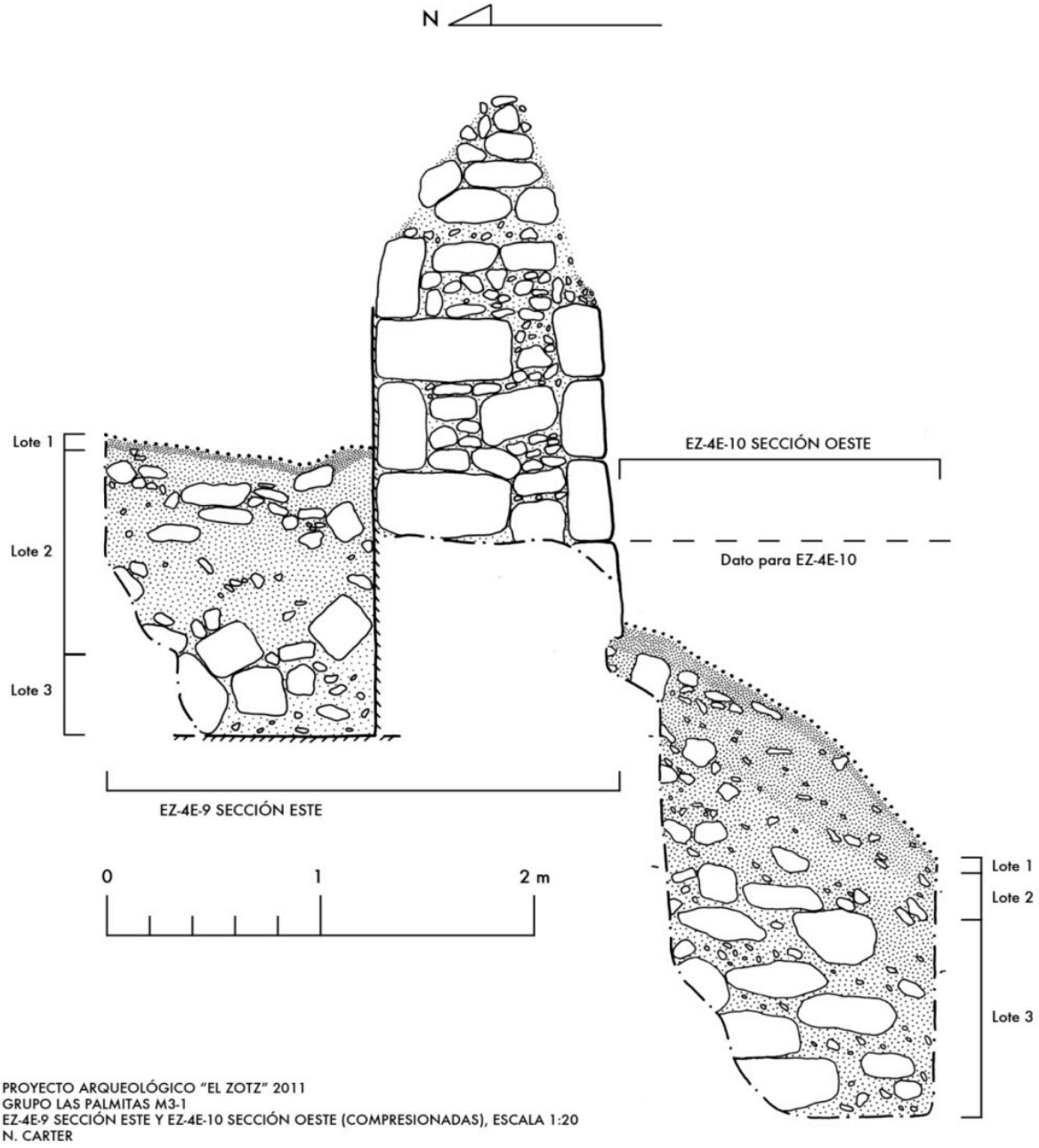


Figure 30: Monumental architecture at Las Palmitas - Str. M3-1 Pyramid superstructure (Carter)

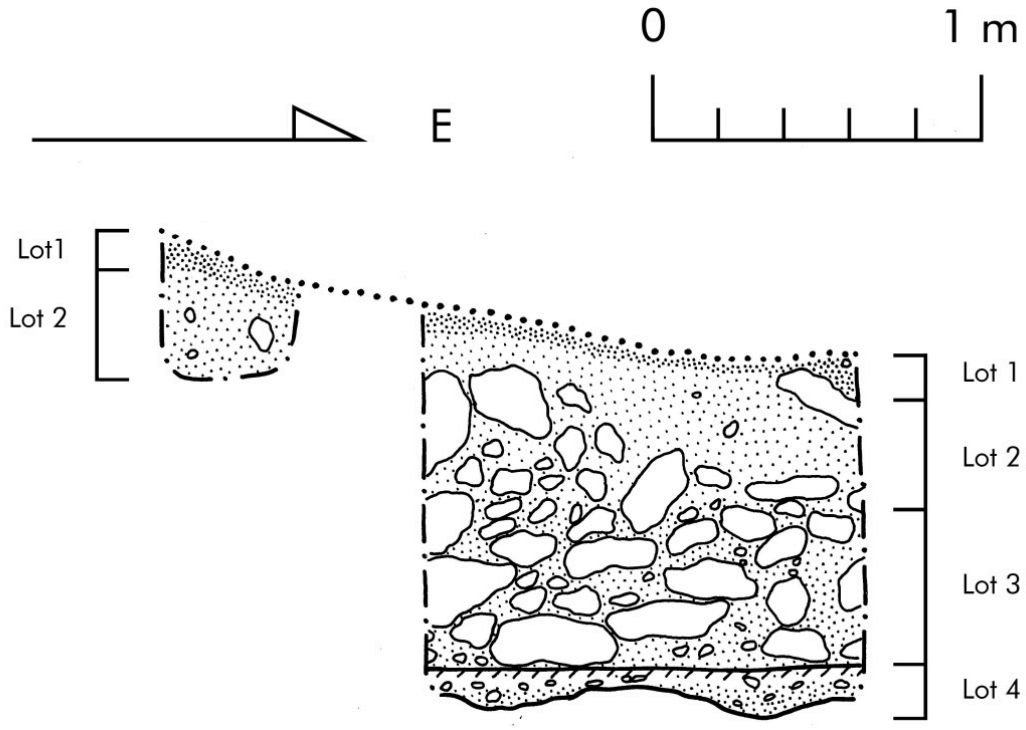


Figure 31: Vernacular architecture at Las Palmitas – Str. M3-4 (Carter)

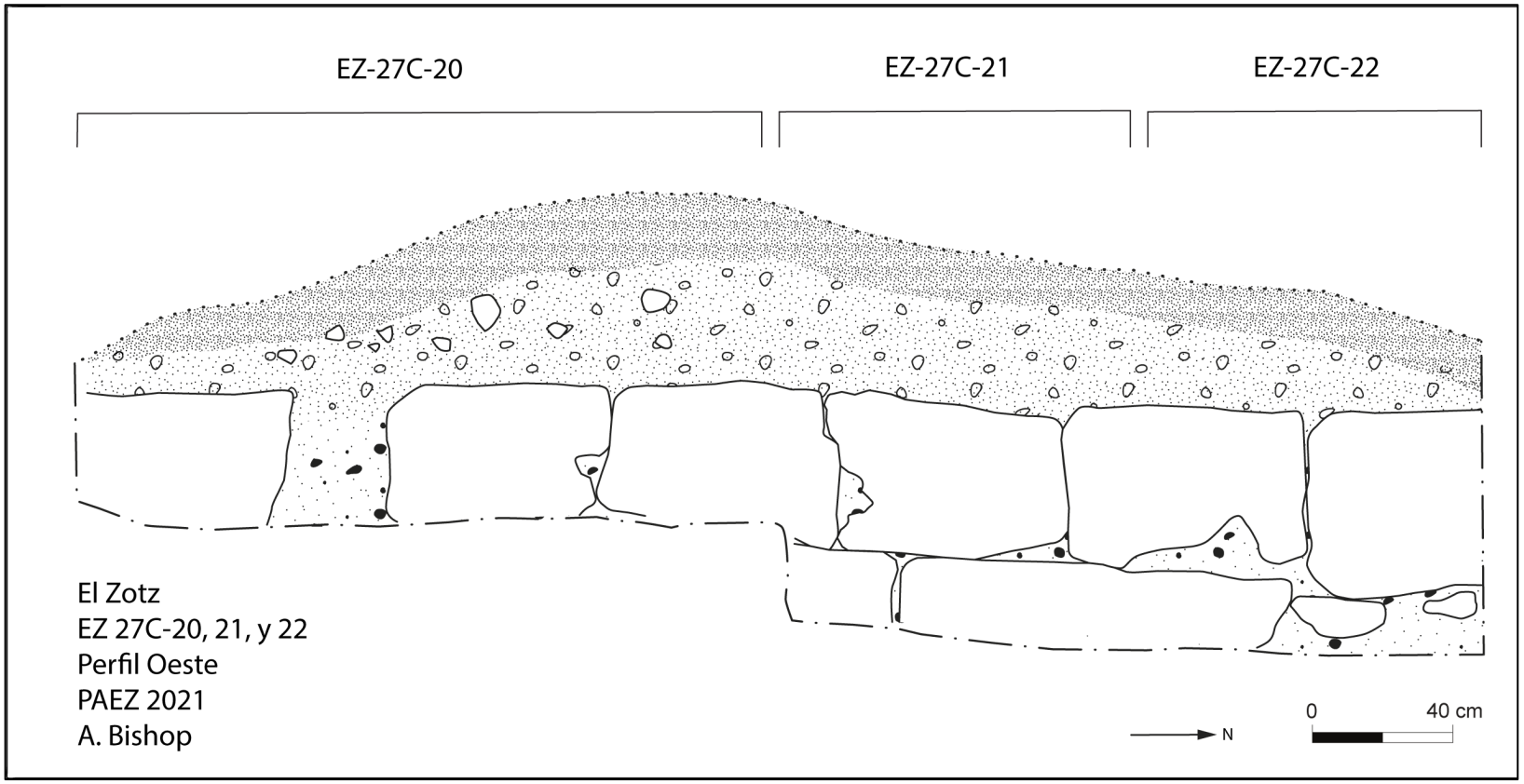


Figure 32: Improved architecture at La Luna - Str. T1-11 (Bishop)

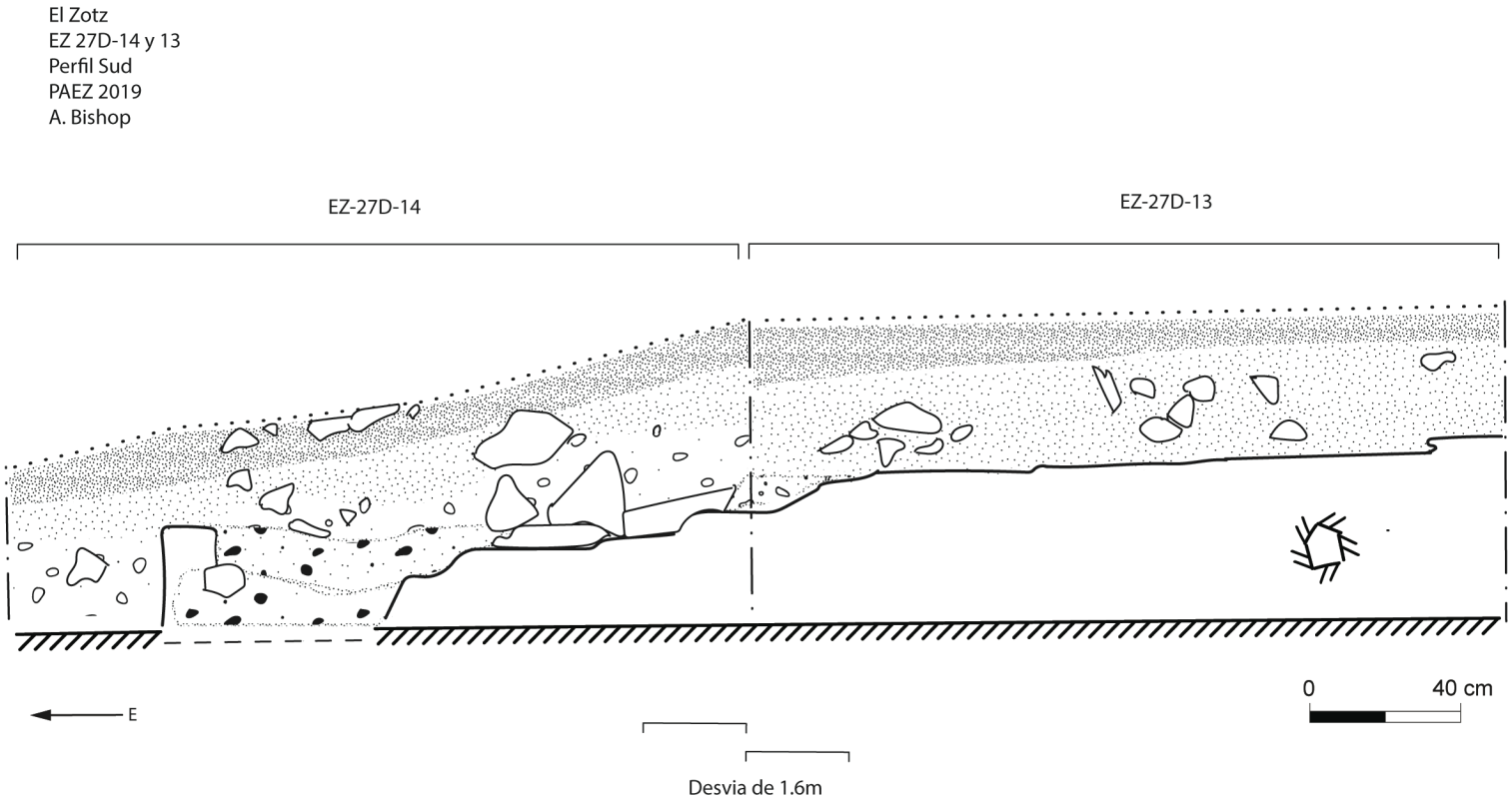


Figure 33: Improved Architecture at La Luna - Str. T1-3 (Bishop)



Figure 34: Vernacular architecture, Terminal Classic rubble platform wall – Str. T1-11 (Bishop)

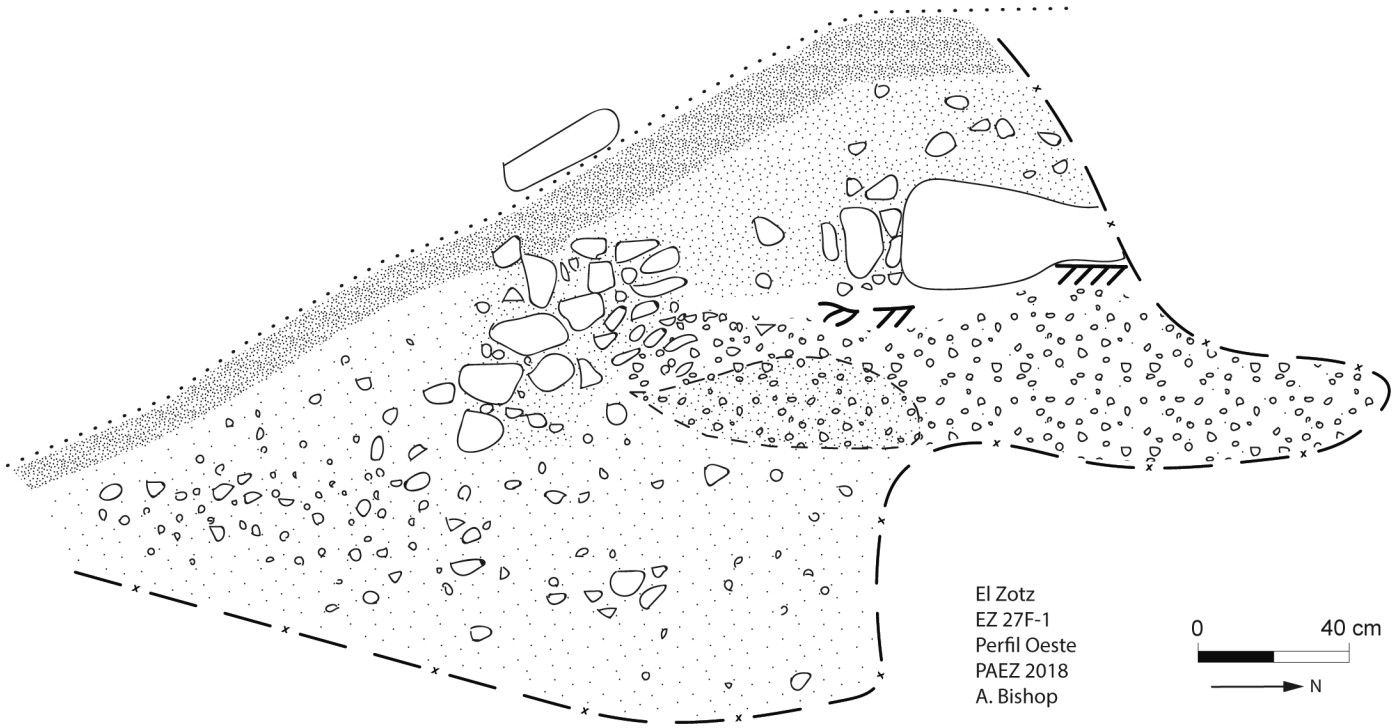


Figure 35: Vernacular architecture at La Luna – Str. (Bishop)



Figure 36: Unslipped jars (Czapiewska)

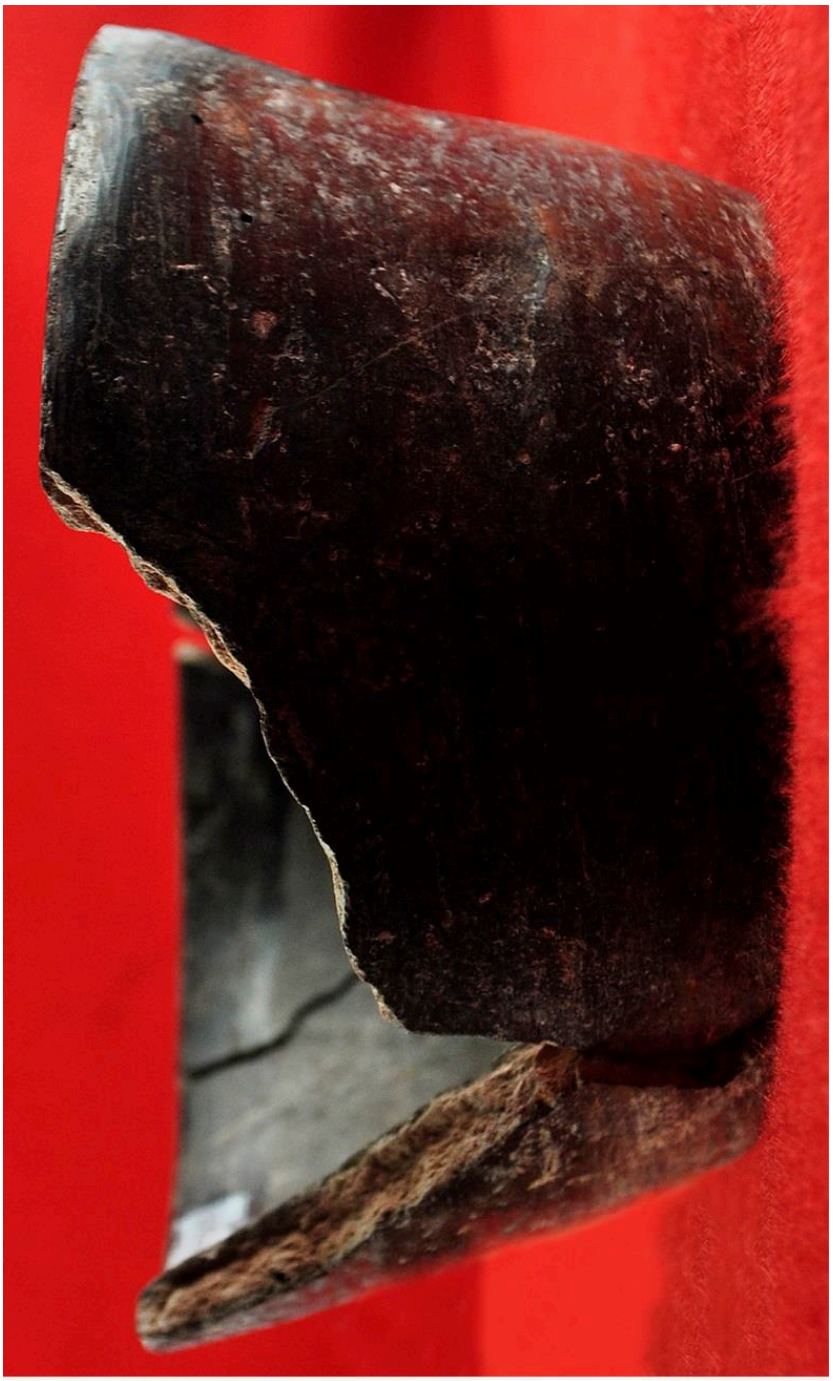


Figure 37: Monochrome serving vessels (Czapiewska)



Figure 38: Polychrome serving vessel (Czapiewska)



Acropolis: EZ-2H-4-4
Terminal Classic: Cucul
Chinja Impressed



Acropolis: EZ-2H-4-4
Terminal Classic: Cucul
Chinja Impressed

1 cm

Figure 39: Impressed surface treatments (Czapiewska)



Acropolis: EZ-2F-3-2
Terminal Classic: Cucul
Tolla Channelled



Acropolis: EZ-2G-8-3
Terminal Classic: Cucul
Camarón Incised

1 cm

Figure 40: Incised surface treatments (Czapiewska)

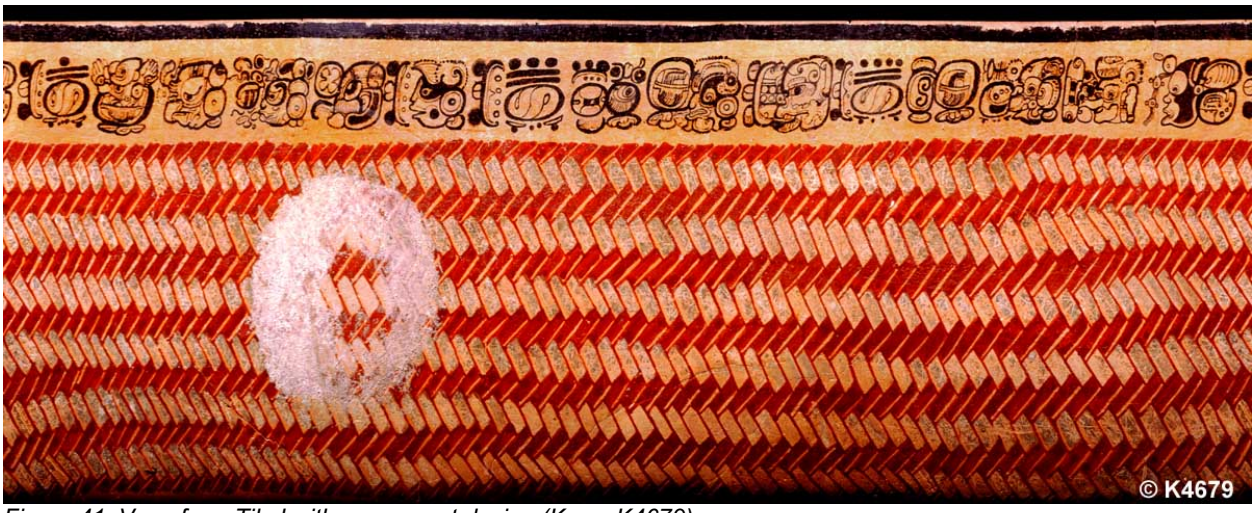


Figure 41: Vase from Tikal with woven mat design (Kerr - K4679)



Figure 42: King seated on woven cushion (Kerr - K4929)

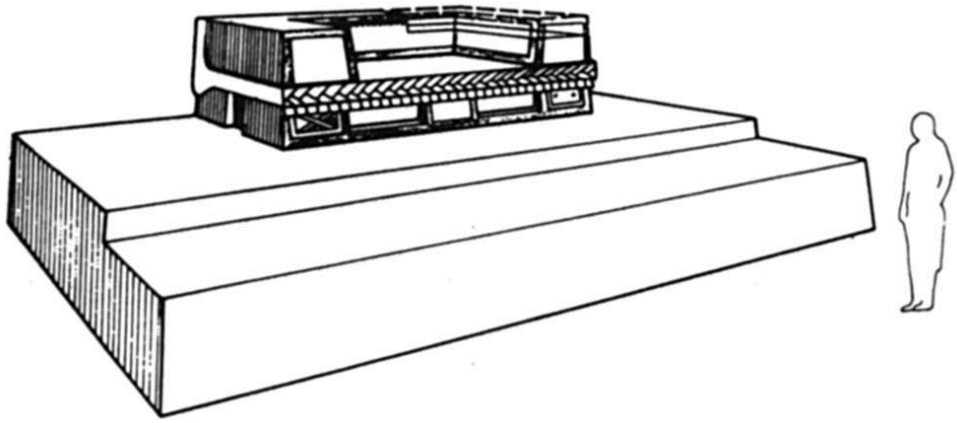
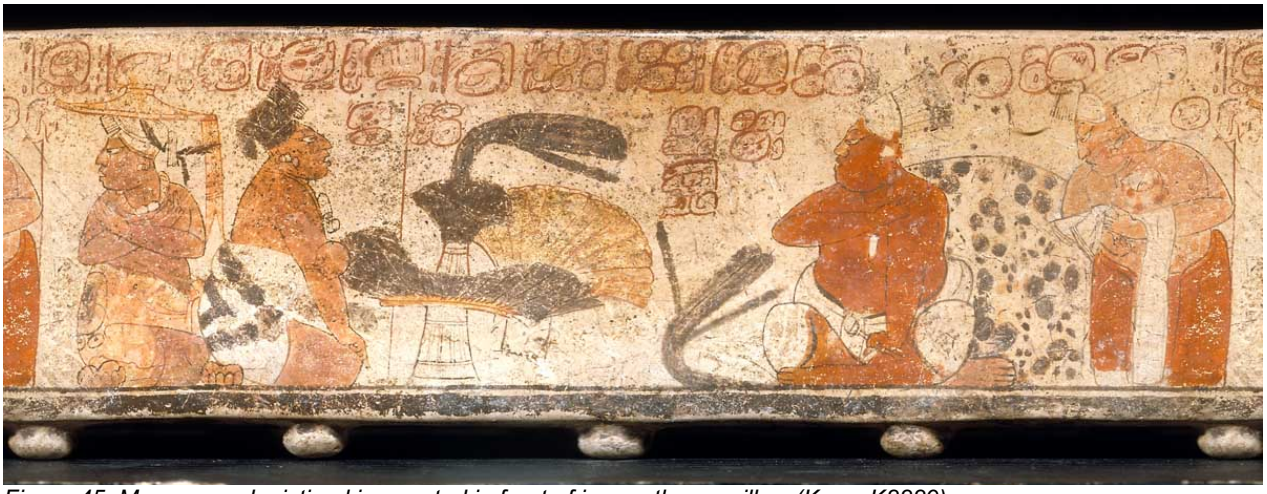

Figure 43: Throne with modeled stucco in braided band design (Laporte and Fialko 1995:78)



Figure 44: Maya vase depicting elites wearing jaguar skins for a ritual (Kerr - K533)


Figure 45: Maya vase depicting king seated in front of jaguar throne pillow (Kerr - K8889)

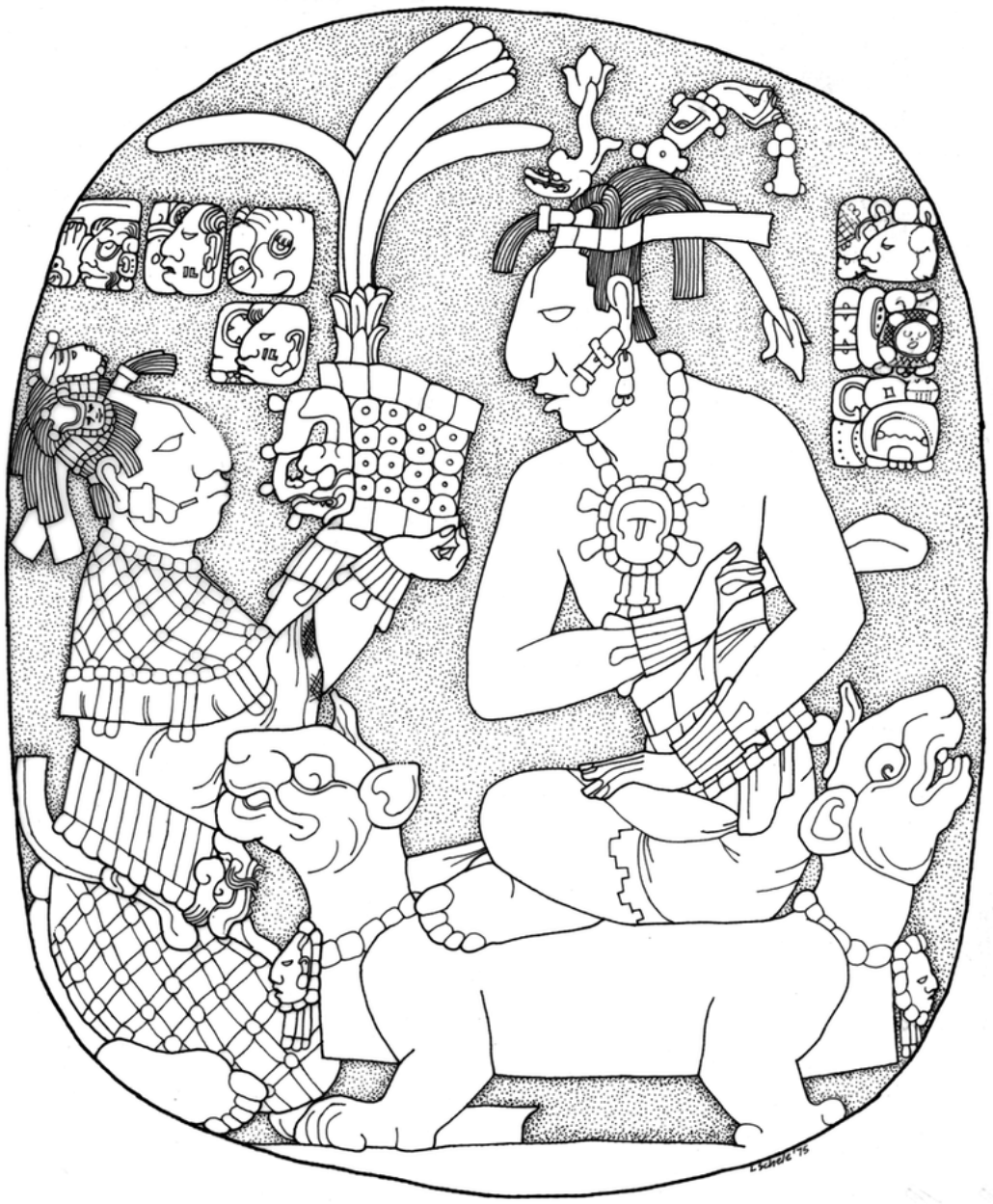


Figure 46: Palenque Oval Tablet – Lord Pakal of Palenque sitting on Jaguar throne (By Schele, provided by Los Angeles County Museum of Art)



Figure 47: Jaguar throne at Chichén Itzá (by HJPD, provided by Wikimedia Commons)



Figure 48: Acropolis (EZ-2A-7-1) - Jaguar spot pattern on sherd (Czapiewska)



Figure 49: Northwest Courtyard (EZ-12K-6-11) - Jaguar spot pattern on vessel (Carter)



Figure 50: Las Palmitas (EZ-4X-9-1) - Jaguar spot pattern (Carter)



Figure 51: La Luna (EZ-27C-2-4) - jaguar spot pattern in possible court scene on vessel (Bishop)



Figure 52: Str. L7-11 deposit - Mat design vessel (Houston):



Figure 53: Acropolis (EZ-2H-3-4) - Braided band design on sherd (Czapiewska)



Figure 54: Acropolis (EZ-2G-2-2) - Braided band design on sherd (Czapiewska)


Figure 55: Northwest Courtyard (EZ-12K-13-4) - Mat design vessel (Czapiewska)



Figure 56: La Luna (EZ-27D-3-3) - Mat design on sherds (Bishop)



Figure 57: La Luna (EZ-27D-7-7) - Braided band design on sherd (Bishop)



Figure 58: La Luna (IR-58A, EZ-27C, EZ-27D) - Zotz Red variety sherds from La Luna (Kwon)



Figure 59: Acropolis (EZ-2G-14-4) - Sherd with El Zotz emblem glyph (Carter)

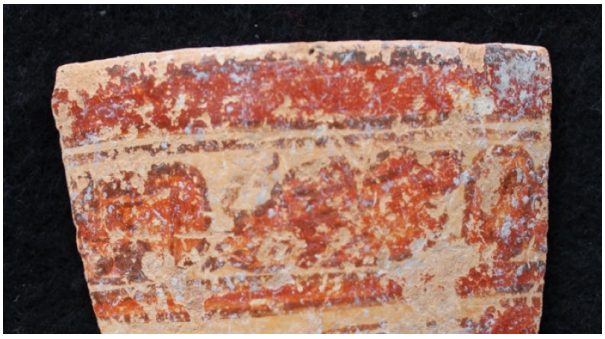


Figure 60: La Luna (EZ-27C-7-3) - Sherd with distinctive 'bah' logogram (Bishop)



Figure 61: La Luna (EZ-27C-2-5) - vase offering with El Zotz emblem substituting for "u" glyph (Bishop)



Figure 63: La Luna (IR-58A-1-1) - Possible royal title (Kwon)



Figure 62: La Luna (EZ-27C-2-4) – Earspool emblem glyph followed by je' (Kwon)



Figure 64: Carved shell glyph from La Luna (Photo by Bishop, drawing by Hernandez)

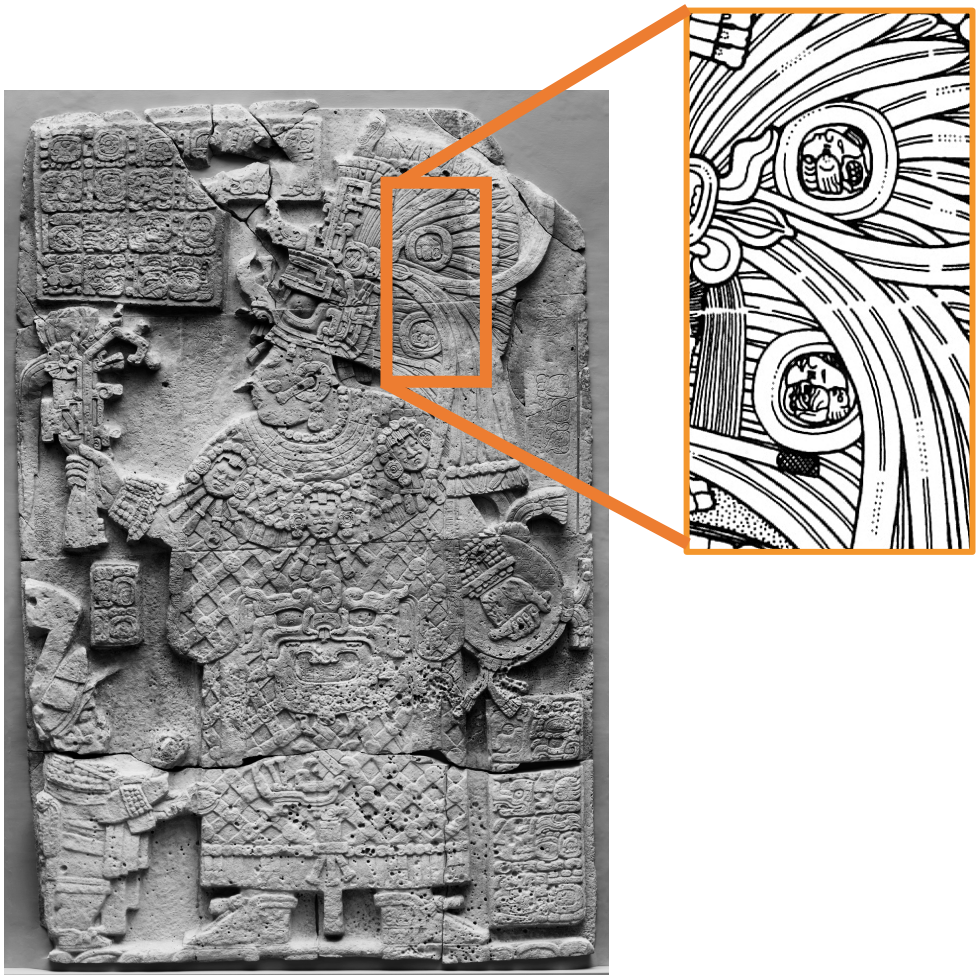


Figure 65: El Perú-Waka' Stela 34 depicting Lady K'abel wearing ceremonial headdress (Cleveland Art Museum, detail provided by Stephen Houston).



Figure 66: Zotz Red Wahy vase (Kerr - K7525)

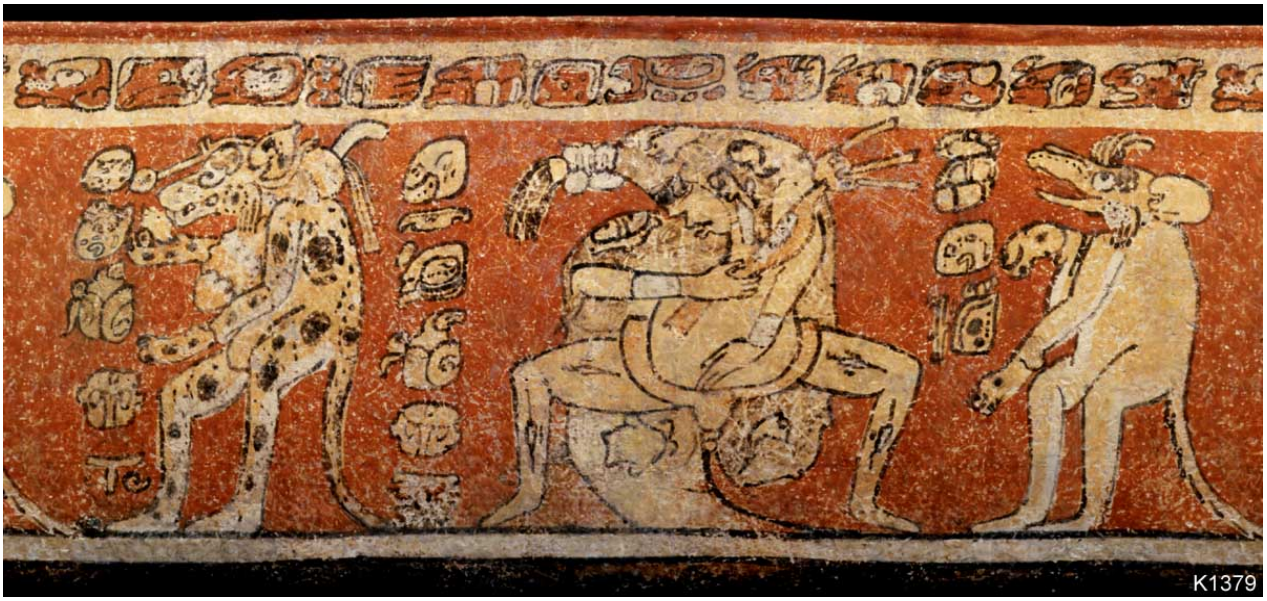


Figure 67: Zotz Red wahy vase (Kerr - K1379)



Figure 68: Zotz Red Wahy vase (Kerr – K1743)



Figure 69: La Luna (EZ-27D-12-6) - Partial name of wahy k'ak'ne tz'utz (fire tailed coati) (Bishop)

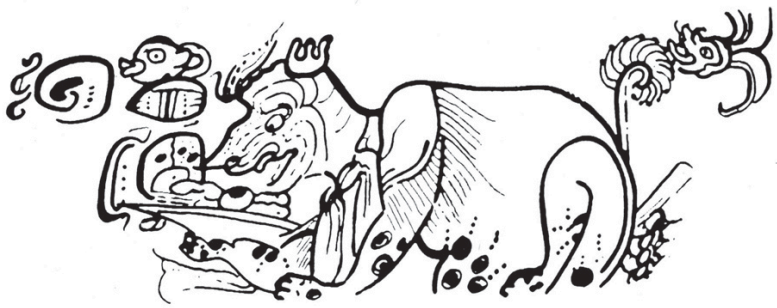


Figure 70: Fire-Tail Coati wearing sacrificial scarf on vase K4116 (Grube and Nahm 1994:703)



Figure 71: La Luna (EZ-27C-1-4) - Wahy breathing out flame scrolls upward (Kwon)





Figure 72: similar wahy on other pots (Kerr - K1743, K5367)



Figure 73: La Luna (EZ-27C-2-4) Skeletal faced wahy (Kwon)



Figure 74: La Luna (IR-58A-1-1) Skeletal faced wahy (Kwon)

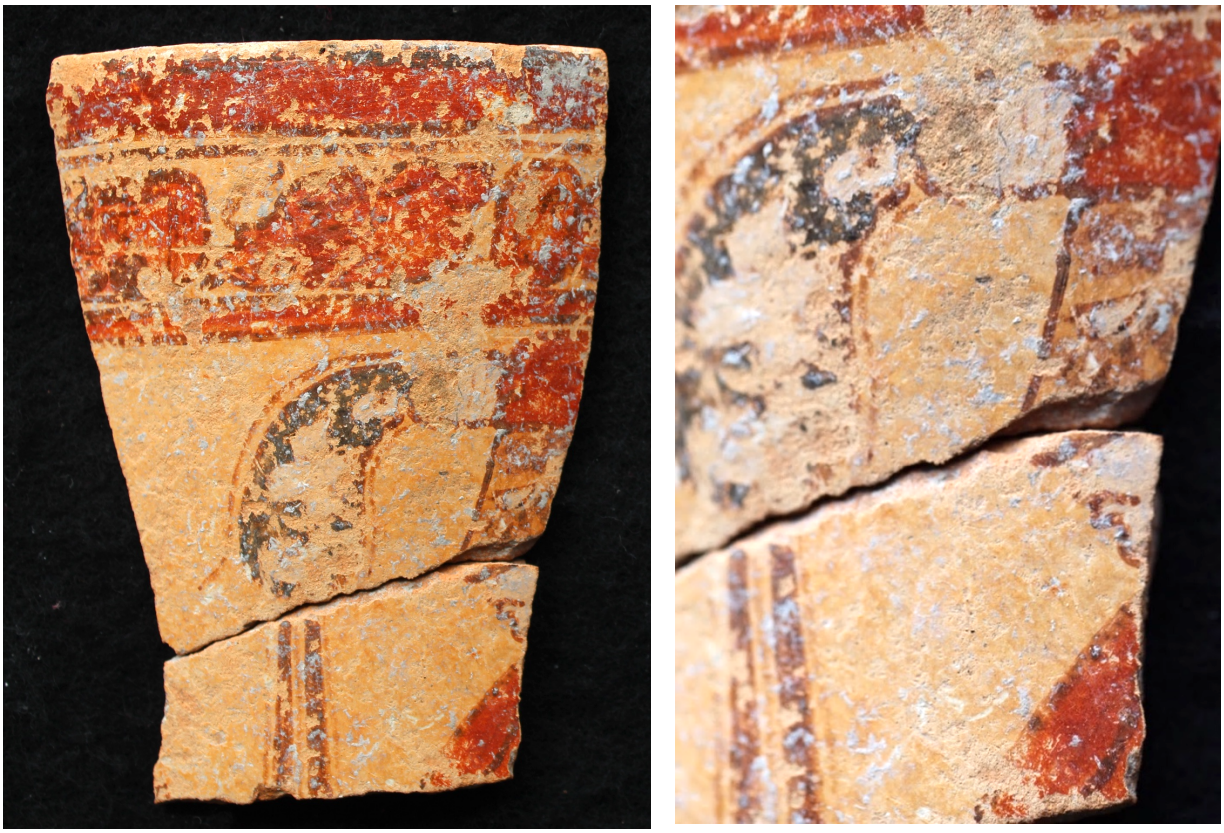


Figure 75: La Luna (EZ-27C-7-3) - God A' below rim band with the Primary Standard Sequence (Bishop)



(a) *(b)* *(c)*

Figure 76: Akhan (a- wearing "death collar"; b-severing head; c- wearing sacrificial scarf) (Coe 1982:60, Kerr - K927, K1230, and K5070)



Figure 77: La Luna (EZ-27C-2-4) - Striped cape with fringe (Bishop)



(a) (b) (c)

Figure 78: Figures wearing sacrificial capes (a-b holding sacrificial knives, c holding baby jaguar sacrifice) (Kerr - K1490, K1200, K5043)



Figure 79: La Luna - Ceramic drum painted with death eyes (Alcover Firpi)



Figure 80: The "cosmic howler monkey lidded bowl" from the tomb of the dynastic founder at El Diablo (Jorge Pérez Lara)



Figure 81: The "cosmic howler monkey lidded bowl" features a wahy-like monkey and represents an incipient version of the Zotz Red ceramic variety (Jorge Pérez Lara)



Figure 83: Cached infant sacrifice from the tomb of the dynastic founder (Román)



Figure 82: Cache in Str. L7-11 (Houston)



Figure 84: Bowls from Str. L7-11 cache (Houston)



Figure 85: Objects from Str. L7-11 cache (Houston)


Figure 86: Cache in Str. M3-1 (Godoy)



Figure 87: Vase under Str. T1-11 (Bishop)



Figure 88: Cache under Str. T1-11 (Rosales)



Figure 89: Section of the termination deposit at the Acropolis (Ramirez)



Figure 90: Termination deposit at La Luna (Bishop)

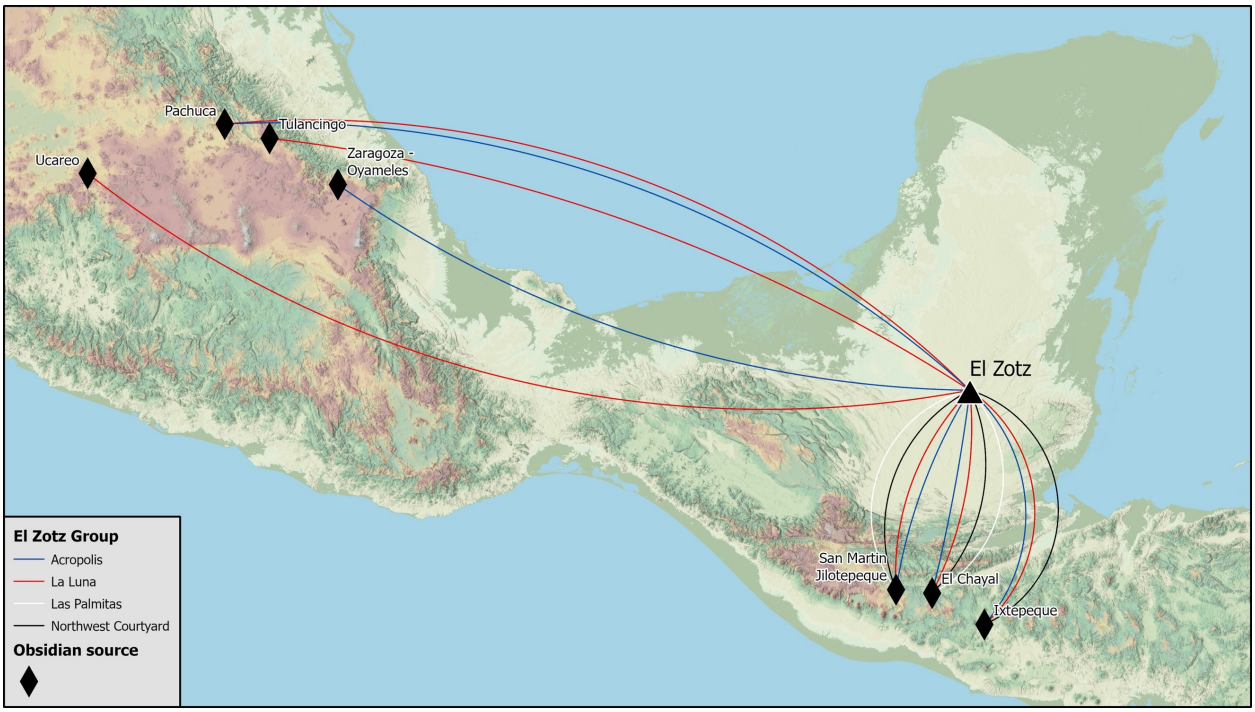


Figure 91: Sources of Obsidian found at El Zotz (Garrison)



Figure 92: Str. L7-11 cache - Jade pendant (Houston)



Figure 93: Str. L7-11 cache - Conch shell pendant (Houston)

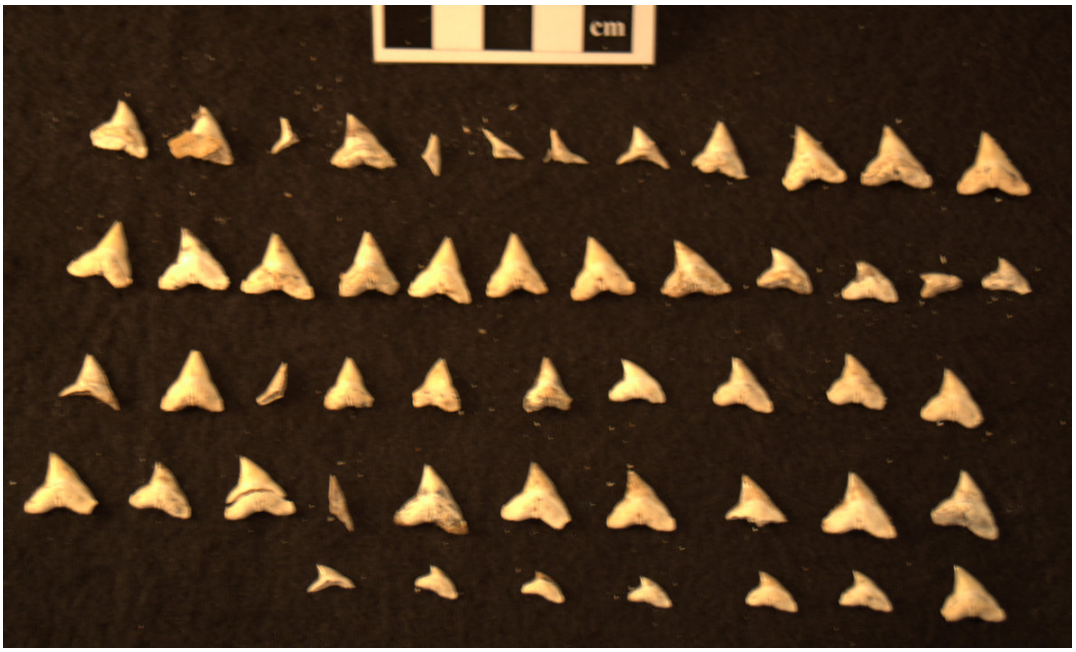


Figure 94: Str. L7-11 cache - Shark teeth (Houston)

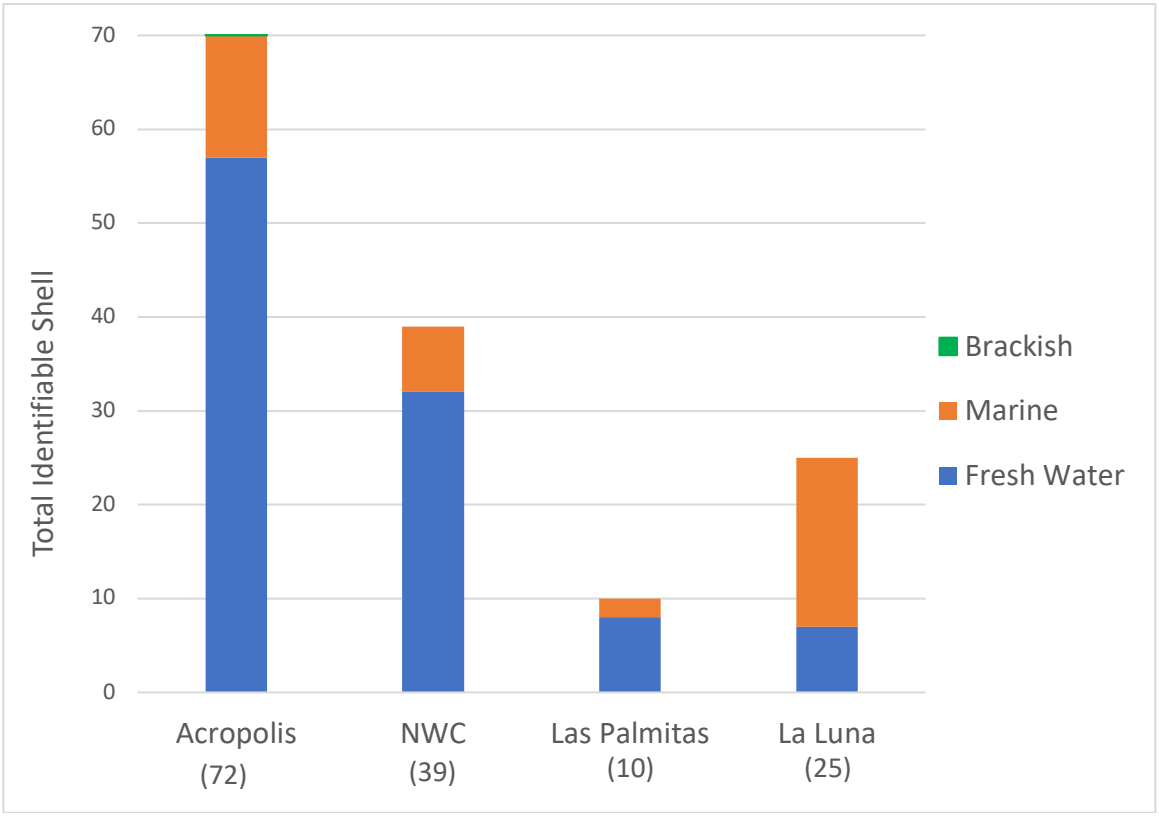


Figure 95: Imported marine and brackish shell versus local freshwater shell at each group



Figure 96: Acropolis (EZ-2A, EZ-2F) – Ik' sherds (Carter)



Figure 97: Acropolis (EZ-2H-3-4) Tres Naciones fine gray (Czapiewska)



Figure 98: Altar group sherds from the Acropolis (Czapiewska)

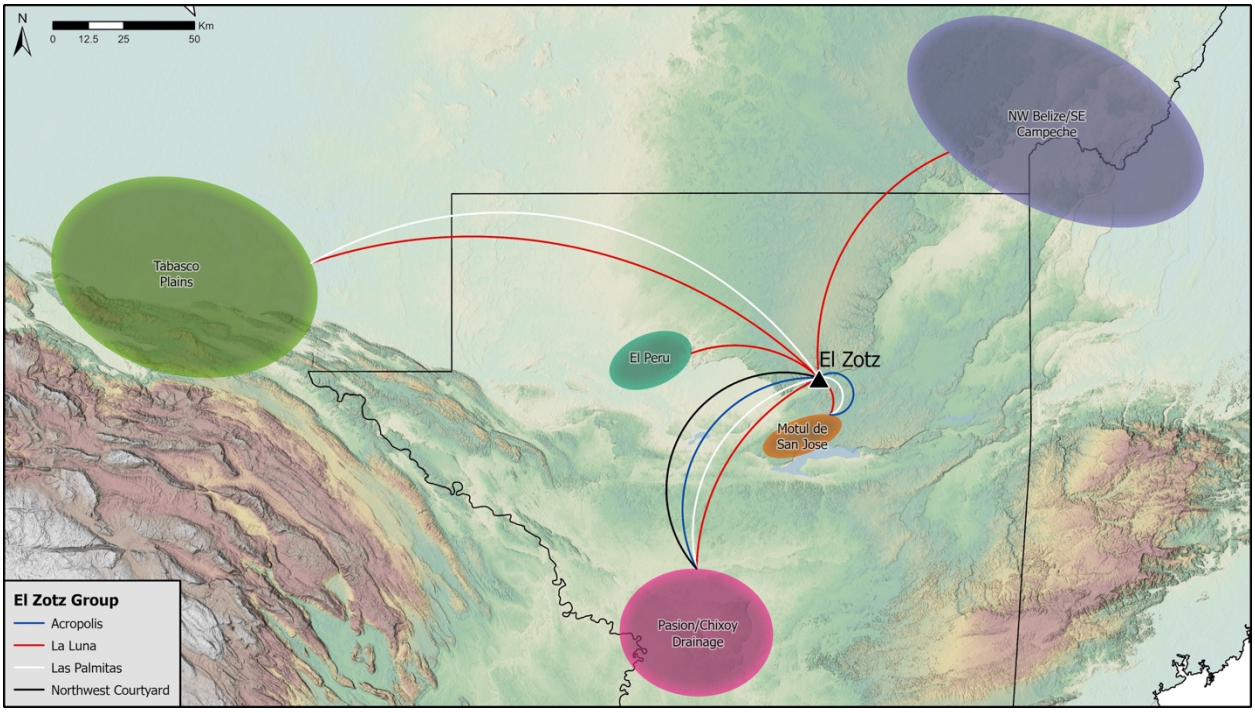


Figure 99: Sources of Nonlocal Serving Vessels found at El Zotz (Garrison)



Figure 100: Northwest Courtyard - Altar fine orange sherd (Czapiewska)



Figure 101: Las Palmitas - Altar fine orange sherd (Czapiewska)



Figure 102: Las Palmitas - Ik style sherds (Czapiewska)

:



Figure 103: Las Palmitas - Sahcaba Molded-Carved vessel (Czapiewska and Carter)



Figure 105: La Luna (EZ-27C-3-3) - Jade bead from (Bishop)



Figure 104: La Luna (EZ-27C-11-3) - Coral (Bishop)



Figure 106: La Luna - Ik style sherds (Kwon)



Figure 107: La Luna (EZ-27C-2) Honey Yellow variety sherds (Kwon)



Figure 108: La Luna (Ir-58A, EZ-27C) Petkanche sherds (Bishop)



Figure 109: La Luna (IR-58A-2-1) - Chablekal fine gray vessel (Bishop)

APPENDIX A: EXCAVATIONS AT LA LUNA

2017 Regional Investigations at the La Luna Group (Operations 58 and 62)

Anna Bishop, Tom Garrison

Objectives:

1. Determine the form and architecture of the located archaeological remains and compare these data with the LiDAR data, with the intention of determining the use of this new technology.
2. Determine the chronology of identified groups using material culture.
3. Better understand the Prehispanic settlement history of the Buenavista Valley.

Description of the Investigation Area

The investigation area contains 20 discrete zones in the Biotope, selected based on the quantity of interesting architectural features identified in the LiDAR. The zones include: areas of sites already mapped like El Zotz (Zones 9, 10, and 17), El Palmar (Zone 15), and El Fortín (Zone 8); peripheral areas at El Zotz (Zones 1, 2, 7, 11, 12, 13, 18) and random settlements to the north of El Palmar (Zone 14).

Methodology:

The methodology of these investigations include the use of 1x1 m test pits in areas where it was necessary to uncover significant features. In some units teams excavated through more than three layers of cultural stratigraphy, which helped to determine the state of construction. Teams recovered and bagged surface materials. Each unit followed the standard numbering designation system used at El Zotz (site - IR, operation number, sub-operation letter, unit number, lot number).

Description of La Luna (Zone 7 of Reconnaissance, IR 58 and IR 62):

Sub-operations IR 58 and 62 form the La Luna group. This group was previously identified in 2015 by Omar Alcover Firpi. Firpi collected polychrome sherds from this area in 2015 after reporting a recent looter trench.

La Luna is composed of three terraces that climb eastward up the escarpment. Around the basal terrace is a large mound that has 3 looter trenches (2 in the west side, 1 in the south side). Just east of this mound is another structure that is oriented N-S. One of the main structures on the basal terrace had 3 looter trenches. The second terrace supports two structures. One structure oriented N-S faces west and has 2 looter trenches (1 on the west side and 1 on the south side) and one structure oriented east-west has 4 looter trenches on its south side. On top of this, in the subsequent terrace, there is another structure oriented east-west with one looters trench facing south. The main terrace has two adjoined structures to the west, one going east-west and one going north-south. The E-W mound has 2 looter trenches (1 on the north side and 1 on the south side). The north-south structure is large with 7 illegal trenches in it (4 on the west side and 3 on the east side.

South of these two mounds is a low, square structure with two looter trenches (1 on the north side and 1 on the west side). Surrounding the south side of the main group is a large mound with 5 looter trenches (5 on the north side and 3 on the south side). The east side of the structure is not looted. On the east end of the patio there are two structures oriented N-S that adjoin diagonally. The structure to the south has 3 looter trenches (1 on the west side, 2 on the east side); the northeast structure has 2 looter trenches (1 on the east side and the other on the north side). At the north end of the patio is a large structure with two peaks, each pierced by a looters trench on the north side of the structure. A low platform extends south on the east side of this structure, forming an L which ends in natural terrain.

The subsequent terrace had a low mound extending west from the northwest corner of the terrace. This platform had a chultun at the center of it. West of the mound were 2 other structures. The southeast structure had 1 looter trench in the west wall. On the east end of the terrace was a large mound with 1 large looter trench in the west wall. The final terrace had two looter trenches on the west site, which complicated its visibility. At the top of the final terrace was a structure to the north and a structure to the east, facing west. The east structure had 1 looter trench in the north wall. In total the team documented 22 structures with 39 looter trenches.

IR-58A-1
Description: This unit is located in a reconnaissance zone identified with LiDAR technology and ground truthing. The objective of this unit was to clean and stabilize the north looter trench in the east wall of the west structure in the principal patio group at La Luna.
Dimensions: Variable.

IR-58A-1 (Lot 1): This lot consisted of cleaning the northeast looters trench in the west structure of the main patio on the basal platform at La Luna. The material recovered was dated to the Early, Late, and Terminal Classic.

IR-58A-2
Description: This unit is located in a reconnaissance zone identified with LiDAR technology and ground truthing. The objective of this unit was to clean and stabilize the south looter trench in the east wall of the west structure in the principal patio group at La Luna.
Dimensions: Variable

IR-58A-2 (Lot 1 – Burial 34): Recovered cultural material from a looted cyst burial that ran N-S. At the end of the trench was the entrance to a chultun which the looters also cleaned out. This chultun was square-ish in shape and largely empty. Recovered 11 bags of ceramic dating to the Late and Terminal Classic, as well as 5 shell fragments, 5 obsidian fragments, human bone fragments, and an abundant quantity of lithics.

IR-58B-1
Description: This unit is located in a reconnaissance zone identified with LiDAR technology and ground truthing. The objective of this unit was to clean and stabilize the west looter trench in the north wall of the south structure in the principal patio group at La Luna.
Dimensions: Variable

IR-58B-1 (Lot 1 – Burial 35): This unit appeared to be a looted tomb. The burial architecture had a roof of slanted slabs leaning against one another, forming a makeshift vaulted arch. Human remains and fragments of worked shell were concentrated in the southwest section of the trench. Uncovered 32 ceramic sherds dating to the Late Classic and 8 fragments of worked shell.

IR-58B-2
Description: This unit is located in a reconnaissance zone identified with LiDAR technology and ground truthing. The objective of this unit was to clean and stabilize the center looter trench in the north wall of the south structure in the principal patio group at La Luna.
Dimensions: Variable

IR-58B-2 (Lot 1 – Burial 36): At the end of this unit human remains were found, including a mandible. Recovered 27 ceramic sherds dating to the Late Classic, human remains, and 1 lithic fragment.

IR-58C-1
Description: This unit is a test pit located in a reconnaissance zone identified with LiDAR technology and ground truthing. The test pit was located in the center of the patio of the principal patio group at La Luna. The objective of this unit was to document the floor sequence in the main patio and add to the chronological sequence of the group.
Dimensions: 1x1 m

IR-58C-1 (Lot 1): Layer of fill with small and medium-sized rocks. Uncovered limestone in the southeast corner. Recovered ceramic and lithic materials dating to the Late Classic. Munsell: 5YR 3/2. Matrix: silty loam topsoil. Depths: NW: 32 cm; SW: 30 cm; NE: 33 cm; SE: 35 cm

IR-58C-1 (Lot 2): Uncovered limestone fill in the southeast corner of the unit. Below this was a layer of fill consisting of small rocks. Found 1 shell fragment, lithics, ceramics dating to the Late Classic, and 1 carbon sample. Munsell: 10YR 4/2. Depths: NW: 62cm; NE: 60
cm; SW: 60 cm; SE: 63 cm.

IR-58C-1 (Lot 3): Layer of compacted grey mortar. Arrived at bedrock. The northeast corner of the bedrock was lower than the rest of the unit as if intentionally shaped in a semi-circular depression. Recovered eroded ceramics, 1 shell fragment, and 1 carbon sample. Depths: NW: 89 cm; NE: 129 cm; SW: 91cm; SE: 92 cm.

IR-58D-1
Description: This unit is a test pit located in a reconnaissance zone identified with LiDAR technology and ground truthing. The test pit was immediately west of IR-58A and immediately south of the E-W oriented structure that is adjoined to IR-58A. The objective of this unit was to search for domestic refuse that may have been thrown off of the sides of either platform.
Dimensions: 1x1 m

IR-58D-1 (Lot 1): Dark brown humus (10 YR 3/3). Collected 19 ceramic sherds dating to the Late Classic. Depths: NW: 42 cm; NE: 34 cm; SW: 40cm; SE: 34cm.

IR-58D-1 (Lot 2): Dark brown sandy loam soil (10 YR 4/3) fill of small and medium-sized rocks. Recovered 22 small ceramic fragments dating to the Late Classic. Depths: NW: 58 cm; NE 51 cm; SW: 66 cm; SE: 53 cm.

IR-58D-1 (Lot 3): Brown sandy loam (10 YR 6/2). Fill composed of small and medium-sized rocks. Recovered small ceramic fragments dated to the Late Classic and 6 lithic fragments. Depths: 84 cm; NE. 76 cm; 89 cm; 83 cm.

IR-58D-1 (Lot 3): Layer of grey mortar (10 YR 6/2) with small rocks and minimal cultural material. Arrived at bedrock. Collected 10 ceramic sherds dated to the Late Classic. Depths: 93 cm; NE: 96 cm; SW: 99cm; SE: 97 cm.

IR-62A-1
Description: This unit is located in a reconnaissance zone identified with LiDAR technology and ground truthing. The objective of this unit was to clean and stabilize the center looter trench in the north wall of the eastern-most structure at La Luna. This is a small, low, square structure.
Dimensions: Variable

IR-62A-1 (Lot 1): This unit yielded partially complete vessels, suggesting that there may have been a cache before the structure was looted. The ceramics represented a mixture of Early and Late Classic types.

2018 Investigations at the La Luna Group (Operation 27)

Anna Bishop

Introduction

The La Luna Group is a Classic period residential settlement formed by 20 structures, approximately 2 km from the Acropolis of El Zotz, at the foot of the Buenavista Escarpment. It was identified during regional investigations in the 2015 season, and investigated during the 2017 season by cleaning out four looter trenches and excavating two test pits. These excavations produced material from the Early Classic to the Postclassic, but the majority stemmed from the Late Classic. Many polychrome ceramics were found in the construction fill, which is not normal for such a modest architectural group. For this reason, we tested the hypothesis that the inhabitants of La Luna were potters that made the polychromes found in the architectural fill. Unfortunately, the majority of the structures in the group were excavated illegally, possibly because of the quality of the ceramics in the fill, alluding to rich deposits that might be inside the mounds.

In order to determine if there was ceramic manufacturing, we searched for refuse from pottery production. We cleaned looter trenches to examine the secondary refuse in the construction fill and excavated test pits behind structures in search of primary refuse in middens. The test pits also served to refine the chronological sequence at La Luna.

The investigations at La Luna were directed by Bishop with assistance from Pamela Rosales and Dennis Baldwin in the excavation and documentation of finds.

Objectives

1) Clean and stabilize looter trenches.
2) Identify areas of primary refuse
3) Recover material culture to refine the sequence of occupation of the group and confirm the presence or absence of ceramic production.

Methodology

In total we excavated 19 units, 5 looters tunnels and 14 test pits of 1x1 m. Although the majority of the looter trenches were only one lot, we recorded various lots for trenches that were large and complex. In this case we changed lots for each cavern of a different form in the tunnel, and each feature that was found. For the test pits we used changes in the matrix to delineate natural lots.

EZ-27A-1

Description: The objective of this test pit was to find a midden. The unit was located on an incline to the east of Str. T1-10, below where Str. T1-9 and T1-10 meet.
Surface Depths: NW: 0.24, NE: 0.07, SW: 0.14, SE: 0.04.
Dimensions: 1x1 m, 0.78 m D.

EZ-27A-1 (Lot 1): Humus (10 YR 3/2) dark brown. Recovered 30 sherds of ceramic, 1 fragment of obsidian, and 2 of chert. Depths: NW: 0.4 m., NE: 0.39 m., SW: 0.35 m., SE: 0.34 m.

EZ-27A-1 (Lot 2): Loose soil (10 YR 5/2) of dark brown with small rocks. The materials in the lot included 101 ceramic sherds, 2 fragments of obsidian, and 20 fragments of lithic. Final Depths: NW: 0.6 m., NE: 0.56 m., SW: 0.59 m., SE: 0.55 m.

EZ-27A-1 (Lot 3): Lighter soil, compact and hard (10 YR 7/2) with more rocks. Found 17 ceramic sherds and 2 lithic fragments. Final Depths: NW: 0.72 m., NE: 0.8 m., SW: 0.71 m., SE: 0.75.

EZ-27A-1 (Lot 4): Compact soil, light brown (10 YR 8/2), reached bedrock throughout the whole unit. Did not recover any cultural materials. Final Depths: NW: 0.83 m., NE: 0.84 m., SW: 0.83 m., SE: 82 m.

EZ-27A-2

Description: The objective of this test pit was to find a midden. The unit was located on an incline to the east of Str. T1-10, below where Str. T1-9 and Str. T1-10 meet, about 2 m east of EZ-27A-1 over the backfill from the looter trench above.
Surface Depths: NW: 0.16, NE: 0.07, SW: 0.58, SE: 0.05
Dimensions: 1x1 m, 1.60 m D.

EZ-27A-2 (Lot 1): Humus, dark brown (10 YR 8/3) with backfill from the looters trench above in Str. T1-10. Recovered only 2 ceramic sherds. Final Depths: NW: 0.9 m., NE: 0.73 m., SW: 0.55 m., SE: 0.72 m.

EZ-27A-2 (Lot 2): Loose soil below the looters backfill, darker in color (10 YR 4/2) with some rocks. There were 10 ceramic sherds. Final Depths: NW: 1 m., NE: 0.78 m., SW: 0.71, SE: 0.94 m.

EZ-27A-2 (Lot 3): Slightly hard soil, brown (10 YR 6/2) with more rocks and 25 ceramic sherds. Final Depths: NW: 1 m., NE: 0.98 m, SW: 1 m., SE: 0.92 m.

EZ-27A-2 (Lot 4): Loose soil, brown (10 YR 6/2) with few medium sized rocks. Recovered more material culture, 212 ceramic sherds and 11 lithic fragments**.** Final Depths: NW: 1.5 m., NE: 1.52 m., SW: 1.55 m., SE: 1.52 m.

EZ-27A-2 (Lot 5): Compact, hard soil, light brown (10 YR 8/2), with small rocks. Found 54 ceramic sherds and 3 lithic fragments on top of bedrock, which was uncovered throughout the unit. Final Depths: NW: 1.65 m., NE: 1.67 m., SW: 1.62 m., SE: 1.64 m.

Results: In sub-operation A we identified an area behind Str. T1-10 that contained domestic refuse, but not in the quantity of a midden. For this reason excavations in this sub-operation were closed.

EZ-27B-1
Description: The objective of this test pit was to find a midden. The unit was located between structures T1-8 and T1-7 in the southwest corner of Str. T1-7.
Surface Depths: NW: 0.03, NE: 0.06, SW: 0.09, SE: 0.09.
Dimensions: 1x1 m, 0.68 m D.

EZ-27B-1 (Lot 1): Humus, dark brown (10 YR 3/2), with 3 ceramic sherds and 1 figurine fragment. Final Depths: NW: 0.13 m., NE: 0.16 m., SW: 0.11 m., SE: 0.15 m.

EZ-27B-1 (Lot 2): Loose soil, dark brown (10 YR 4/2) with small and medium-sized rocks and small fragments of limestone. Found 7 ceramic sherds. Final Depths: NW: 0.27 m., NE: 0.36 m., SW: 0.31 m., SE: 0.26 m.

EZ-27B-1 (Lot 3): Loose soil, brown (10 YR 5/2) with architectural features. Large rock son the west side of the unit formed a line that was possibly a Wall. Recovered 35 ceramic sherds and 2 lithic fragments. Final Depths: NW: 0.58 m., NE: 0.74 m., SW: 0.44 m., SE: 0.62 m.

EZ-27B-1 (Lot 4): Dirt fill, brown (10 YR 5/2) with small rocks on top of a floor. Two cut blocks were set on the floor at the east end of the unit. Recovered 11 ceramic sherds and 2 obsidian fragments. Final Depths: NW: 0.58 m., NE: 0.74 m., SW: 0.45 m., SE: 0.63 m.

EZ-27B-2
Description: Extension to the south of EZ-27B-1 to identify if the line of stones and cut blocks in EZ-27B-1 were architectural elements.
Surface Depths: NW: 0.06, NE: 0.05, SW: 0.14, SE: 0.07.
Dimensions: 1x1 m, 0.55 m D.

EZ-27B-2 (Lot 1): Humus, dark brown (10 YR 3/2) with 4 ceramic sherds. Final Depths: NW: 0.19 m., NE: 0.19 m., SW: 0.22 m., SE: 0.18 m.

EZ-27B-2 (Lot 2): Soil, dark brown (10 YR 4/2) with rocks and 8 ceramic sherds. Final Depths: NW: 0.32 m., NE: 0.31 m., SW: 0.33 m., SE: 0.32 m.

EZ-27B-2 (Lot 3): Dirt fill, brown (10 YR 5/2) soil with gravel. **R**evealed a continuation of the rocks in the west half of unit EZ-27B-1. This line confirmed that the rocks were probably a rubble wall, possibly from the southwest corner of Str. T1-7. Excavations

stopped here to avoid exploring architecture outside the parameters of the excavation permit for this operation. Final Depths: NW: 0.61 m., NE: 0.43 m., SW: 0.64 m., SE: 0.56 m.

Results: The excavations of sub-operation B revealed the northwest corner of Str. T1-7. The features found appear to represent two phases of architecture: a well-made external wall with defined blocks that unite with the floor, and another wall that was possibly part of a later extension of lesser quality, likely from the Terminal Classic. When it was confirmed that the features were architectural excavations ended in in sub-operation B.

EZ-27C-1
Description: The object of this unit was to clean and stabilize the looters tunnel in the north wall on the west end of Str. T1-11.
Dimensions: 6.60 m in length by 0.5 m in width.

EZ-27C-1 (Lot 1): Lot 1 of this looters trench consisted of the first 2.3 meters of the tunnel. The backfill was mixed with many polychrome ceramics, and the walls revealed two layers of fill. Found 115 ceramic sherds and 1 fragment of obsidian.

EZ-27C-1 (Lot 2): The second lot of unit C-1 began with a drop where looters excavated 1.6 m down and then extended 2 m south, creating a central cavern. Found 343 ceramic sherds, 1 obsidian fragment, 4 lithic fragments, 1 fragment of Shell, and 7 fauna bone fragments. Also recovered 1 sample of carbon in the wall of the tunnel.

EZ-27C-1 (Lot 3): The third lot of the tunnel extended 2.2 m south of lot 2, creating a second cavern. Recovered 300 ceramic sherds, 4 obsidian fragments, 8 lithic fragments, 1 shell fragment, and 3 fauna bone fragments.

EZ-27C-1 (Lot 4): The final lot consists of a cavern that extended 2 m to the west of lot 2. Found 275 ceramic sherds, 2 obsidian fragments, 8 lithic fragments, and 18 fauna fragments.

EZ-27C-2
Description: The object of this unit was to clean and stabilize the looter tunnel in the north wall on the east end of Str. T1-11.
Dimensions: 8.50 m long by 0.92 m wide.

EZ-27C-2 (Lot 1): Lot 1 of the looter trench was composed of the first 2 m of tunnel. This lot revealed one layer of fill. The matrix of the backfill was Loose, producing 67 ceramic sherds, 4 lithic fragments, and 2 fauna bone fragments.

EZ-27C-2 (Lot 2): Lot 2 extended 2 m south of Lot 1. The soil was mixed with many polychrome ceramics. The walls revealed 7 layers of fill that formed the structure. Found hundreds of sherds and 3 fragments of lithic.

EZ-27C-2 (Lot 3): Lot 3 continued 0.80 m south of Lot 1. Recovered hundreds of sherds, 3 fragments of obsidian, 3 fragments of lithic, and 17 fauna bone fragments. Located the entrances to a chultún at the end of the lot

EZ-27C-2 (Lot 4): The fourth lot contained all of the material that filled the entrance to a chultún that was cut into the bedrock. This lot dropped 0.8 m below Lot 3, and it is possible that the looters did not enter the chultun given that the soil in the entrance was compact. Found a lot of carbon and groups of large sherds from pots that fit together. This material possibly represents a primary deposit that was topped with architectural fill in order to construct Str. T1-11. From the soil recovered hundreds of ceramic sherds, 12 lithic fragments, 1 shell fragment, 53 faunal bone fragments, and 1 carbon sample.

EZ-27C-2 (Lot 5): The fifth lot represents a primary deposit in the chultún located on top of the bedrock along the north wall of the chamber. It was composed of a lot of carbon, a deer femur, and a base that was placed standing up on the bedrock. The vessel was a polychrome cylinder base that was inscribed with the emblem glyph of El Zotz. Although fragmented, the majority of the sherds of the base were found together. Only a few sherds were missing, which were found in the materials from Lot 4 during analysis. Approximately 0.50 m from the deer bone was a group of olla sherds. Recovered 47 ceramic sherds, 1 lithic fragment, 8 fauna bone fragments, and a large carbon sample. At first when the deer bone was discovered it was believed that Lot 5 represented a burial, so it was documented as such at first.

EZ-27C-2 (Lot 6): The sixth lot of unit C-2 contained White-brown (10 YR 7/1) soil below Lot 4, surrounding Lot 7. This matrix was on top of bedrock, y contained large sherds and limestone rocks. The lot contained 80 ceramic sherds and 1 lithic fragment.

EZ-27C-2 (Lot 7): This lot sat at the same depth as Lot 6, but represents an circumscribed by dark soil (10 YR 3/1) as if a fire was lit at the entrance to the chultún. The lot contained large pot sherds and one partial bowl of Saxche-Palmar Naranjo Anonal (15 sherds in total), 1 grinding Stone, 1 lithic fragment, and 1 fauna bone fragment as well as a burnt stucco fragment.

EZ-27C-2 (Lot 8): South of the entrance of the chultún, at the back of the chamber, excavators found the capstone to the chultún with medium-sized rocks encircling it. Lot 8 is composed of the rocks and soil surrounding the capstone. Recovered 1 sherd.

Results: The illegal tunnels in sub-operation C were large and deep, containing large quantities of material culture in the fill disturbed by looters. The most significant feature

in these units was the chultun underneath the trench in EZ-27C-2. Although the looters made cuts into the walls of the chultun entrance, the compacted earth in the chultun chamber suggests that the looters did not enter. For this reason it is believed that Lots 5-8 still intact, and possibly Lot 4. The offering in Lot 5, the burned deposit in Lot 7, and the dispersions of large sherds indicate that ritual activities took place in the chultun before it was sealed with refuse.

EZ-27D-1

Description: The objective of this test pit was to search of a midden. The unit was located south of Str. T1-3, on the slope behind the southwest corner of the structure.
Surface Depths: NW: 0.02, NE: 0.10, SW: 0.46, SE: 0.46.
Dimensions: 1x1 m, 1.79 m D.

EZ-27D-1 (Lot 1): Humus, dark brown (10 YR 4/2) with 30 ceramic sherds. Final Depths: NW: 0.23 m., NE: 0.25 m., SW: 0.63 m., SE: 0.63 m.

EZ-27D-1 (Lot 2): Fill with brown soil (10 YR 5/2) below layer of collapse rocks. Found 94 ceramic sherds and 7 fragments of fauna bone. Final Depths: NW: 0.73 m., NE: 0.70 m., SW: 0.78 m., SE: 0.76 m.

EZ-27D-1 (Lot 3): The first level of a midden with loose soil, light brown (10 YR 7/2), small rocks and lots of ceramic material. Found hundreds of sherds, 4 fragments of obsidian, and 19 fragments of lithic material. Final Depths: NW: 1.04 m., NE: 1.08 m., SW: 1.12 m., SE: 1.17 m.

EZ-27D-1 (Lot 4): Continuation of the midden consisting of a hard mixture of light brown soil (10 YR 7/2) with gravel. Recovered hundreds of ceramic sherds, 2 obsidian fragments, 18 lithic fragments, and 5 fauna bone fragments. The lot ended at bedrock throughout the unit. Final Depths: NW: 1.42 m., NE: 1.89 m., SW: 1.73 m., SE: 1.99 m.

EZ-27D-2

Description: The objective of this test pit was to search for the midden identified in EZ-27D-1 behind the southeast corner of Str. T1-3, in order to determine the extent of the midden. The unit was located 4.5 m east of EZ-27D-1, at the same latitude.
Surface Depths: NW: 0.09, NE: 0.05, SW: 0.55, SE: 0.50.
Dimensions: 1x1 m, 2.28 m D.

EZ-27D-2 (Lot 1): Humus, dark brown (10 YR 3/2). Yielded 19 ceramic sherds. Final Depths: NW: 0.37 m., NE: 0.36 m., SW: 0.54 m., SE: 0.52 m.

EZ-27D-2 (Lot 2): Dark brown soil (10 YR 4/2) and large rocks from collapse. Found 34 ceramic sherds. Final Depths: NW: 0.68 m., NE: 0.74 m., SW: 0.81 m., SE: 0.79 m.

EZ-27D-2 (Lot 3): The first midden layer appeared in this lot, in a medium-hard matrix of light brown soil (10 YR 5/2) and small rocks. Recovered 148 ceramic sherds, 4 obsidian fragments, and 24 lithic fragments. Final Depths: NW: 1.34 m., NE: 1.37 m., SW: 1.37 m., SE: 1.35 m.

EZ-27D-2 (Lot 4): The midden continued in a hard mixture of light brown (10 YR 5/2) soil with gravel. Excavated high quantities of ceramic, 3 fragments of obsidian, and 17 lithic fragments. Final Depths: NW: 1.47 m., NE: 1.47 m., SW: 1.50 m., SE: 1.45 m.

EZ-27D-2 (Lot 5): Light brown (10 YR 5/1) fill and gravel. Found 22 ceramic sherds and 37 lithic fragments. Final Depths: NW: 1.85 m., NE: 1.78 m., SW: 1.80 m., SE: 1.87 m.

EZ-27D-2 (Lot 6): Hard mixture of light brown soil (10 YR 5/1) without gravel. There was less material culture in this lot, with only 7 sherds and 2 lithic fragments. Final Depths: NW: 2.31 m., NE: 2.28 m., SW: 2.31 m., SE: 2.33 m.

EZ-27D-2 (Lot 7): Hard mixture of light brown soil (10 YR 5/2) on top of bedrock. The lot finished with bedrock throughout the unit. No artifacts were recovered. Final Depths: NW: 2.37 m., NE: 2.29 m., SW: 2.60 m., SE: 2.48 m.

EZ-27D-3

Description: This test pit was a south extension of unit EZ-27D-1 to search for the limits of the midden. Excavators used the same midden used in EZ-27D-1 to measure the depths.
Surface Depths: NW: 0.47 m., NE: 0.50 m., SW: 0.81 m., SE: 0.85 m.
Dimensions: 1x1 m, 1.55 m D.

EZ-27D-3 (Lot 1): Humus, dark brown (10 YR 4/2) soil with 80 ceramic sherds and 1 lithic fragment. Final Depths: NW: 0.73 m., NE: 0.75 m., SW: 0.97 m., SE: 0.99 m.

EZ-27D-3 (Lot 2): Brown soil (10 YR 5/2) with medium and large sized collapse rocks. Recovered 108 ceramic sherds, 1 obsidian fragment, and 1 lithic fragment. Final Depths: NW: 1.20 m., NE: 1.16 m., SW: 1.26 m., SE: 1.20 m.

EZ-27D-3 (Lot 3): In this lot excavators picked up the midden found in EZ-27D-1-3. Contained soft, light brown soil (10 YR 6/2) that became harder with gravel by the end of the lot. Found hundreds of ceramics, 4 obsidian fragments, 5 lithic fragments, 2 figurine sherds, and 9 fauna fragments. Excavations revealed bedrock along the west wall of the unit. Final Depths: NW: 1.78 m., NE: 1.75 m., SW: 1.80 m., SE: 1.80 m.

EZ-27D-3 (Lot 4): hard mixture of light brown soil (10 YR 6/2) with small rocks on top of bedrock. Found 8 ceramic sherds. Final Depths: NW: 1.78 m., NE: 2.05 m., SW: 1.87 m., SE: 2.10 m.

EZ-27D-4
Description: This test pit searched for the extent of the midden uncovered in unit EZ-27D-1. The unit extended south of EZ-27D-3 and used the same datum as EZ-27D-1 to measure the depths. Surface depths: NW: 0.83 m., NE: 0.85 m., SW: 1.11 m., SE: 1.17 m.
Dimensions: 1x1 m, 1.21m D.

EZ-27D-4 (Lot 1): Dark brown humus (10 YR 3/2) with 9 ceramic sherds. Final Depths: NW: 0.97 m., NE: 0.99 m., SW: 1.17 m., SE: 1.18 m

EZ-27D-4 (Lot 2): Loose dark brown soil (10 YR 3/2) with collapse rocks. Found 13 ceramic sherds. Final Depths: NW: 1.09 m., NE: 1.11 m., SW: 1.21 m., SE: 1.21 m.

EZ-27D-4 (Lot 3): In this lot excavators picked up the midden found in EZ-27D-1-3. The matrix consisted of loose, dark brown soil (10 YR 4/2) with small rocks. Final Depths: NW: 1.37 m., NE: 1.38 m., SW: 1.42 m., SE: 1.43 m.

EZ-27D-4 (Lot 4): The midden continued in this lot. Consisted of loose, brown soil (10 YR 5/2) with small and medium sized rocks. Recovered 142 ceramic sherds, 2 obsidian fragments, 2 lithic fragments, and 5 fauna bone fragments. Final Depths: NW: 1.46 m., NE: 1.46 m., SW: 1.46 m., SE: 1.45 m.

EZ-27D-4 (Lot 5): The midden continued through a hard mixture of brown soil (10 YR 5/2) with gravel. Found hundreds of ceramic sherds, 2 obsidian fragments, 13 lithic fragments, 32 fauna bone fragments, and 1 figurine sherd. Final Depths: NW: 1.96 m., NE: 1.97 m., SW: 1.94 m., SE: 1.94 m.

EZ-27D-4 (Lot 6): Hard mixture of brown soil (10 YR 6/2) with 11 sherds on top of bedrock. Reached bedrock throughout the unit. Final Depths: NW: 2.01 m., NE: 2.06 m., SW: 2.24 m., SE: 2.19 m.

EZ-27D-5
Description: This test pit searched for the extent of the midden uncovered in unit EZ-27D-1. The unit extended west of EZ-27D-1 and used the same datum as EZ-27D-1 to measure the depths.
Surface Depths: NW: 0.05 m., NE: 0.03 m., SW: 0.42 m., SE: 0.48 m.
Dimensions: 1x1 m, 1.46 m D.

EZ-27D-5 (Lot 1): Dark brown humus (10 YR 3/2) composed of 2 ceramic sherds. Final Depths: NW: 0.10 m., NE: 0.13 m., SW: 0.50 m., SE: 0.48 m.

EZ-27D-5 (Lot 2): Loose, dark brown soil (10 YR 4/2) with small rocks. Found 15 ceramic sherds. . Final Depths: NW: 0.25 m., NE: 0.40 m., SW: 0.57 m., SE: 0.59 m.

EZ-27D-5 (Lot 3): Harder brown soil (10 YR 5/2) with medium sized rocks. Found 95 sherds. Final Depths: NW: 0.56 m., NE: 0.60 m., SW: 0.70 m., SE: 0.84 m.

EZ-27D-5 (Lot 4): Hard, brown soil (10 YR 5/2) composed of large rocks and 15 sherds. Final Depths: NW: 0.80 m., NE: 0.79 m., SW: 0.86 m., SE: 0.84 m.

EZ-27D-5 (Lot 5): In this lot excavators picked up the midden found in EZ-27D-1-3. Contained a matrix of loose, light brown soil (10 YR 6/2) without rocks. Recovered 248 sherds, 1 obsidian fragment, 2 lithic fragments, and 10 fauna bone fragments. Final Depths: NW: 1.16 m., NE: 1.19 m., SW: 1.19 m., SE: 1.18 m.

EZ-27D-5 (Lot 6): The midden continued in this lot. The matrix was composed of hard, light brown soil (10 YR 6/2) with gravel. Found 125 ceramic sherds, and two fauna bone fragments. Final Depths: NW: 1.23 m., NE: 1.29 m., SW: 1.29 m., SE: 1.27 m.

EZ-27D-5 (Lot 7): The midden continued in this lot through a hard mixture of light brown soil (10 YR 6/2) with gravel. The mixture contained 178 ceramic sherds, 3 obsidian fragments, 4 lithic fragments, 7 fauna bone fragments, and 1 carbon sample. Final Depths: NW: 1.35 m., NE: 1.38 m., SW: 1.38 m., SE: 1.38 m.

EZ-27D-5 (Lot 8): Hard brown soil (10 YR 5/2) with gravel. The midden ended in the east half of the lot. Found 143 sherds. Final Depths: NW: 1.36 m., NE: 1.45 m., SW: 1.49 m., SE: 1.52 m.

EZ-27D-5 (Lot 9): Brown soil (10 YR 5/2) mixed with limestone. Recovered 10 sherds, 1 obsidian fragment, and 5 lithic fragments. Final Depths: NW: 1.39 m., NE: 1.49 m., SW: 1.56 m., SE: 1.59 m.

EZ-27D-5 (Lot 10): Hard brown soil (10 YR 5/2) on top of bedrock. Found 6 ceramic sherds. Final Depths: NW: 1.39 m., NE: 1.49 m., SW: 1.71 m., SE: 1.66 m.

EZ-27D-6

Description: This test pit searched for the extent of the midden uncovered in unit EZ-27D-1. The unit extended south of EZ-27D-4. In the field we used a datum 1.1 m below the original datum to measure depths, but the measurements here have been corrected to corresponded to the original datum.
Surface Depths: NW: 1.13 m., NE: 1.23 m., SW: 1.43 m., SE: 1.50 m.
Dimensions: 1x1 m, 1.12 m D.

EZ-27D-6 (Lot 1): Dark brown humus (10 YR 3/2) with 15 ceramic sherds. Final Depths: NW: 1.34, NE: 1.30, SW: 1.52, SE: 1.55.

EZ-27D-6 (Lot 2): Loose, dark brown soil (10 YR 3/2) with medium sized collapse rocks. Found 32 ceramic sherds and 4 lithic fragments. Final Depths: NW: 1.49, NE: 1.53, SW: 1.59, SE: 1.62.

EZ-27D-6 (Lot 3): In this lot excavators picked up the midden found in EZ-27D-1-3. Loose brown soil (10 YR 4/2) containing 71 ceramic sherds, 2 obsidian fragments, and 4 lithic fragments. Final Depths: NW: 1.60, NE: 1.62, SW: 1.65, SE: 1.67.

EZ-27D-6 (Lot 4): The midden continued in this lot. The matrix contained loose brown soil (10 YR 4/2) containing 108 ceramic fragments, 2 obsidian fragments, and 3 lithic fragments. Final Depths: NW: 1.73, NE: 1.72, SW: 1.70, SE: 1.75.

EZ-27D-6 (Lot 5): The midden continued in this lot through loose brown soil (10 YR 4/2) with gravel. Recovered 118 ceramic sherds, 1 obsidian fragment, and 1 lithic fragment. Final Depths: NW: 1.78, NE: 1.76, SW: 1.85, SE: 1.82.

EZ-27D-6 (Lot 6): The midden continued in this lot. The matrix changed to a hard brown soil (20 YR 5/2) with gravel. Revealed 103 sherds, 6 lithic fragments, and 3 fauna bone fragments. Final Depths: NW: 1.96, NE: 1.98, SW: 1.96, SE: 1.96.

EZ-27D-6 (Lot 8): Hard brown soil (10 YR 5/2) with gravel, 11 ceramic sherds, and 2 lithic fragments. Final Depths: NW: 2.01, NE: 2.00 SW: 2.06, SE: 2.05.

EZ-27D-6 (Lot 9): Hard brown soil (10 YR 5/2) with gravel. Found 10 ceramic sherds. Final Depths: NW: 2.06, NE: 2.12 SW: 2.11, SE: 2.11.

EZ-27D-6 (Lot 10): Hard brown soil (10 YR 5/2) with gravel. Found 8 ceramic fragments and arrived at bedrock throughout the unit. NW: 2.27, NE: 2.24, SW: 2.41, SE: 2.40.

EZ-27D-7

Description: This test pit searched for the extent of the midden uncovered in unit EZ-27D-1. The unit extended west of EZ-27D-5 and used the same datum as EZ-27D-1 to measure the depths.
Surface Depths: 1x1 m, 1.35 m D.

EZ-27D-7 (Lot 1): Dark brown humus (10 YR 3/2) with 2 ceramic sherds. Final Depths: NW: 0.13, NE: 0.10, SW: 0.46, SE: 0.46.

EZ-27D-7 (Lot 2): Loose dark brown soil (10 YR 4/2). Found 10 ceramic sherds and 2 lithic fragments. Final Depths: NW: 0.38, NE: 0.38, SW: 0.64, SE: 0.67.

EZ-27D-7 (Lot 3): Hard dark brown soil (20 YR 4/2) with large collapse rocks. Recovered 20 ceramic sherds, 2 lithic fragment, and 7 fauna bone fragments. Final Depths: NW: 0.54, NE: 0.62, SW: 0.73, SE: 0.73.

EZ-27D-7 (Lot 4): Large rocks in hard brown soil (20 YR 5/2). Removed a large root and excavated 23 ceramic sherds and 6 lithic fragments. Final Depths: NW: 0.60, NE: 0.64, SW: 0.75, SE: 0.75.

EZ-27D-7 (Lot 5): Hard brown soil (20 YR 5/3) with large rocks. Excavated 34 ceramic sherds, 7 lithic fragments, and 5 animal bone fragments. Final Depths: NW: 0.67, NE: 0.65, SW: 0.79, SE: 0.79.

EZ-27D-7 (Lot 6): In this lot excavators picked up the midden found in EZ-27D-1-3. The matrix was loose brown soil (10 YR 5/3) with rocks. Found 102 ceramic sherds, 7 lithic fragments, and 2 fauna bone fragments. Final Depths: NW: 0.76, NE: 0.76, SW: 0.90, SE: 0.90.

EZ-27D-7 (Lot 7): The midden continued in this lot through another level of loose brown soil (20 YR 5/3(, but without rocks. Contained 35 sherds, 1 obsidian fragment, and 21 fauna bone fragment. Final Depths: NW: 0.89, NE: 0.86, SW: 1.01, SE: 1.00.

EZ-27D-7 (Lot 8): The midden continued in this lot. The lot contained the same matrix of loose brown soil without rocks, but lighter in color (10 YR 6/2). Yielded 56 ceramic sherds, 4 lithic fragments, and 11 fauna bone fragments. Final Depths: NW: 1.02, NE: 1.02, SW: 1.10 SE: 1.10.

EZ-27D-7 (Lot 9): The midden ended in this lot and the light brown soil (20 YR 6/2) became hard. The mixture was composed of a lot of gravel, 73 ceramic sherds, and 2 fauna bone fragment. Final Depths: NW: 1.22, NE: 1.12, SW: 1.18 SE: 1.20.

EZ-27D-7 (Lot 10): The hard mixture of light brown soil (10 YR 6/2) with rocks continued below the midden. Found 12 ceramic sherds, 4 lithic fragments, 1 shell fragment, and 1 worked Shell. Final Depths: NW: 1.24, NE: 1.24, SW: 1.28 SE: 1.30.

EZ-27D-7 (Lot 11): In the final lot a light brown hard soil (10 YR 6/2) sat on top of bedrock. Revealed bedrock throughout the unit. No material culture was recovered. Final Depths: NW: 1.32, NE: 1.35, SW: 1.39 SE: 1.37.

Results: We located a dense and deep residential midden on the slope south of Str. T1-3. The deposit was located behind the southwest corner of the structure (EZ-27D-1, D-3, D-4, D-5, D-6, D-7), but domestic refuse was also found behind the southeast corner (EZ-27D-2). The midden consisted predominantly of ceramic material, while a

concentration of lithic material was uncovered in unit EZ-27D-2. The matrix behind the structure was composed of four general layers that appeared in each unit. The sequence began with humus, followed by collapse, loose soil, and ended with a hard mixture of gravel. The midden appeared in the layers of loose soil and hard gravel mixture, reaching almost 1 m in depth in places.

EZ-27E-1
Description: The objective of this unit was the clean out and stabilize the north looter tunnel in the east side of Str. T1-6.
Dimensions: 3 m L x 0.5 m W.

EZ-27E-1 (Lot 1): This tunnel was narrow at the entrance, but widened 1.6 m into the tunnel to a width of 2.2 m. The north wall of the unit revealed two layers of fill composed of soil and small rocks on top of a thick floor. Below the floor was a layer of compacted soil with medium-sized rocks, and below that was a layer of loose soil on top of bedrock. At 1.2 m into the tunnel were three slab-shaped rocks stacked vertically on top of one another to a height of 0.6 m, possibly representing a collapsed wall. The backfill was mixed with large quantities of ceramic (240 sherds) and 10 lithic fragments.

Results: Sub-operation E contained a large quantity of material culture mixed in with the architectural fill. Similar to the looter trenches in sub-operation C, this tunnel produced many high-quality polychrome ceramic sherds, but not in the same quantities as the other mounds.

EZ-27F-1
Description: The object of this unit was to clean and stabilize the looters tunnel in the south wall of Str. T2-1. This trench was the second looter tunnel from the southwest corner of the structure.
Dimensions: 4.2 m L x 1.0 m W.

EZ-27F-1 (Lot 1): This looters trench widened to a maximum width of 1.6 m at 2 m inside the tunnel. The architectural sequence was poorly preserved but in the west profile of the trench it was possible to see a layer of loose dirt and small rocks on top of a floor. Below this was a layer of mortar. There were some medium-sized rocks in the profile, but none formed a clear architectural feature. Recovered 52 ceramic sherds, and 2 lithic fragments.

EZ-27F-2
Description: The objective of this test pit was to locate a midden. The unit was placed south of Str. T2-1 near the base of the terrace slope.
Surface Depth: NW: 0.04, NE: 0.10, SW: 0.45, SE: 0.48.
Dimensions: 1x1 m, 0.74 m D.

EZ-27F-2 (Lot 1): Dark brown humus (10 YR 3/2). Recovered 33 ceramic sherds and 1 obsidian fragment.
Final Depths: NW: 0.33 m., NE: 0.36 m., SW: 0.50 m., SE: 0.56 m.

EZ-27F-2 (Lot 2): Loose brown soil (10 YR 5/2) with few rocks. The matrix consisted of 82 ceramic sherds. Final Depths: NW: 0.58 m., NE: 0.55 m., SW: 0.79 m., SE: 0.73 m.

EZ-27F-2 (Lot 3): Loose light brown soil (10 YR 7/1) with medium-sized rocks, possible from collapse. Found 38 sherds and 2 lithic fragments. Final Depths: NW: 0.58 m., NE: 0.57 m., SW: 0.86 m., SE: 0.82 m.

EZ-27F-2 (Lot 4): Loose light brown soil (10 YR 7/2) on top of bedrock. Arrived at bedrock throughout the unit. No material culture. NW: 0.78 m., NE: 0.79 m., SW: 0.98 m., SE: 0.87 m.

EZ-27F-3
Description: The objective of this test pit was to search for a midden closer to Str. T2-1 (higher up the slope). The unit was located south of Str. T201 near the southwest base of the structure.
Dimensions: 1x1 m, 0.74 m D.

EZ-27F-3 (Lot 1): Dark brown humus (10 YR 3/2) with medium-sized rocks, possible from collapse. Found 17 ceramic sherds and 3 lithic fragments. Final Depths: NW: 0.59 m., NE: 0.60 m., SW: 0.81 m., SE: 0.79 m.

EZ-27F-3 (Lot 2): Fine light brown soil (10 YR 7/2). Revealed bedrock throughout the lot, no material culture was found. Final Depths: NW: 0.82 m., NE: 077 m., SW: 0.95 m., SE: 0.90 m.

Results: Str. T2-1 in Sub-operation F was in poor condition due to the thorough looting of the structure. The looter trench did not reveal much material or architecture. The test pits on the slope behind Str. T2-1 yielded a small quantity of domestic refuse the complemented the investigations of residential trash.

EZ-27G-1
Description: The objective of this unit was to clean and stabilize the looter trench in the west side of Str. U1-4.
Dimensions: 4.4 m L x .90 m W.

EZ-27G-1 (Lot 1): This tunnel widened at the end of the trench to 3.6 m in width. The north profile contained small and medium-sized rocks throughout, but a cluster of rocks in the profile possibly represent the remains of a wall 2.2 m into the trench. A meter

length of floor was preserved below these rocks. Below the floor was a compacted matrix of small rocks, and below this was a loose soil that sat on top of bedrock. Recovered 355 ceramic sherds, 4 obsidian shards, 5 lithic shards, 3 shell fragments, and 11 bone fragments. Some human bones were recovered from the back of the tunnel.

EZ-27G-1 (Lot 2 – Burial 39): When it was determined that human remains were located at the end of the looter trench we created a new lot. Burial 39 was set in a matrix of mortar, so it was difficult to remove the bones which were already disturbed and poorly preserved. A femur located under a block-shaped rock in the southeast corner of the tunnel confirmed that more of the remains were under rocks embedded in the profile, but they could not be recovered for fear of disturbing the structural integrity of the tunnel. In this lot 10 ceramic sherds were recovered, 6 lithic fragments, 3 shell fragments, and 16 human bone fragments.

EZ-27G-1 (Lot 3): The third lot represented materials in the southwest trench profile above Lot 2, which fell from the wall while excavating Lot 2. Recovered 6 ceramic sherds, 1 obsidian fragment, and 8 bone fragments.

Results: Although this tunnel and the material in it were poorly preserved, Burial 39 was a notable feature in the unit. Although we did not recover the rest of the remains or any grave goods, it is probable that the remainder of the skeleton is in situ underneath architectural stones.

EZ-27H-1
Description: The objective of this test pit was to search for a midden. The unit was located at the southeast corner of Str. U1-5, which backs up against quarry U1-Q2.
Surface Depth: NW: 0.15, NE: 0.16, SW: 0.45, SE: 0.48.
Dimensions: 1x1 m, 0.39 m D.

EZ-27H-1 (Lot 1): Dark brown humus (10 YR 3/2) with 17 ceramic sherds. Final Depths: NW: 0.15 m., NE: 0.16 m., SW: 0.44 m., SE: 0.49 m.

EZ-27H-1 (Lot 2): Loose dark brown soil (10 YR 3/2) with small and medium-sized collapse rocks. Recovered 25 ceramic sherds and 3 lithic fragments. Final Depths: NW: 0.34 m., NE: 0.33 m., SW: 0.57 m., SE: 0.56 m.

EZ-27H-1 (Lot 3): Loose brown soil (10 YR 5/2) with limestone rocks. Found 31 ceramic sherds and 2 lithic fragments. Reached bedrock throughout the unit, revealing a cut in the bedrock running N-S along the east wall of the unit. The material from this lot came only from the cut in the bedrock.

Results: Sub-operation H did not yield much cultural material and the bedrock was close to the Surface. For this reason the sub-operation was not investigated further.

Preliminary Conclusions

The 2018 investigations were successful in their objectives. Workers cleaned and stabilized looter trenches in sub-operations C, E, F, and G. Although the trenches in sub-operations E, F, and G were poorly preserved, Burial 39 in EZ-27G-1 revealed human remains that provided information regarding the health of the population at La Luna in the Late Classic.

Units EZ-27C-1 and C-2 contained a large quantity of cultural material, especially elite artifacts like polychrome ceramics and worked shell. The chultún that was found in EZ-27C-2 was a particularly important feature given the in-situ deposit found inside. The deposit was ritual in nature, and a vase related to the deposit was inscribed with the Pa'ka'n emblem glyph.

The test pits in sub-operations A, B, D, F, and H recovered large quantities of cultural material that can be used to estimate the occupation range and status of the residents of La Luna. While the investigations at sub-operations A, B, F, and H only produced small amounts of domestic refuse, the midden from sub-operation D provided an abundance of ceramic (with many polychromes) and other residential artifacts. The excavations confirmed that the midden was at least 3 m wide (E-W) and 4 m long (N-S), and almost 1 m deep.

The absence of pottery production debris refutes the hypothesis that the occupants of La Luna were also potters. However, the large quantity of materials excavated permitted other conclusions about the group. The central patio group (composed of sub-operations A, B, C, and D) yielded a collection of prestige artifacts that indicated the principal families at La Luna were of high-status. In addition to this, the carbon samples that came from the chultun in EZ-27C-2 produced a date range of 608-688 AD (95.4% probability) and 652-768 AD (95.4% probability), suggesting that the chultun was in use in the 7th century. Moreover, the ceramics from La Luna were largely from the Late and Terminal Classic. Combined, this information indicates that the central patio group at La Luna was occupied by a high-status lineage from the early Late Classic until the end of the Pa'ka'n dynasty.

2019 Investigations at the La Luna Group (Operation 27)

Anna Bishop

Introduction

La Luna is a residential group located at the base of the Buenavista Escarpment approximately 2 km from the center of El Zotz. The settlement is composed of 20 modest mounds and was originally identified by Omar Alcover during regional reconnaissance investigations in the 2015 season. We returned to La Luna in 2017 and 2018 to clean and stabilize the looter trenches that breach almost all of the structures at the group, and to excavate test pits in search of domestic refuse. These investigations recovered large quantities of cultural material and revealed the domestic and ritual activities that took place at La Luna during the Late and Terminal Classic.

In 2019 we excavated structures T1-3 and T1-11 to determine the form and sequence of the architecture on the main terrace at La Luna. Additionally, through this process we discovered features representing ritual and production activities at the group. Many of the materials recovered shed light on the behaviors of the people that lived at La Luna.

The investigations at La Luna were directed by Bishop with the assistance of Thomas Garrison, Edwin Román, and Jackson Bowser.

Objectives

1) Establish the architectural sequence
2) Find ritual deposits to shed light on the ceremonial behaviors of the residents
3) Recover material culture to refine the occupation sequence

Methodology

Investigations in 2019 were composed of horizontal and vertical excavations. We dug horizontal exposures across the surface of structure to reveal the final phase of architecture at each structure, and vertical trenches down the center of each structure to see the architectural sequence. Structures were covered with a grid of 2x2m squares that aligned with the orientation of the structures. In total we excavated 23 units of varying sizes (1 x 1m, 1 x 2m, y 2 x 2m).

We used natural lots that followed changes in the color, texture, and contents of the soil and architecture. We sifted earth with ¼" screeners and excavated Burial 38 following the project guidelines with wood instruments.

EZ-27C-3

Description: The objective of this unit was to begin the trench down the center of Str. T1-11. The unit was located on the N-S axis of the structure along the south wall of the building.
Dimensions: 2x2 m, 0.4 m D.

EZ-27C-3 (Lot 1): Dark brown humus (7.5 YR 2.5/1). Recovered 17 ceramic sherds and 5 lithic fragments. Depths: NW: 0.11 m., NE: 0.03 m., SW: 0.9 m., SE: 0.9 m.

EZ-27C-3 (Lot 2): Loose, dark brown soil (7.5 YR 3/1) with roots. In the northeast quadrant of the unit there was lighter brown soil and large rocks in the roots of a fallen tree. The material from this lot included 122 ceramic sherds, 1 bone, 60 lithic shards, and 1 obsidian shard. The

bone came from the soil in roots of the fallen tree. Depths: NW: 0.2 m., NE: 0.12 m., SW: 0.17 m., SE: 0.11 m.

EZ-27C-3 (Lot 3): Compacted dark brown soil (10 YR 4/2) with a layer of gravel. There was loose soil and large collapse rocks in the roots of the fallen tree. Here we found a jade bead and a bifacial axe. At the end of the lot we arrived at a layer of compacted fill with large rocks that was also found in units C-4 and C-5. Recovered 280 sherds, 1 worked Shell, 1 jade bead, 1 bone fragment, 252 lithic shards, and 6 obsidian shards. Depths: NW: 0.40 m., NE: 0.38 m., SW: 0.38 m., SE: 0.39 m.

EZ-27C-4

Description: The objective of this unit was to continue the central trench in Str. T1-11 It was located on the central N-S axis, 2 m north of unit C-3
Dimensions: 2x2 m, 0.65 m D.

EZ-27C-4 (Lot 1): Dark brown humus (7.5 YR 3/2). Medium-sized rocks in the north half of the unit and large rocks in the northeast corner. Found 1 ceramic sherd. Depths: NW: 0.09 m., NE: 0.1 m., SW: 0.08 m., SE: 0.07 m.

EZ-27C-4 (Lot 2): Loose dark brown soil (7.5 YR 3/2) with roots. Recovered 149 ceramic sherds, including a Postclassic hourglass-shaped foot. Also collected 11 lithic shards, 1 obsidian shard, 1 grinding Stone, and 1 worked Stone in the shape of a **ring.** Depths: NW: 0.3 m., NE: 0.3 m., SW: 0.2 m., SE: 0.15 m.

EZ-27C-4 (Lot 3): Gravel and compacted lighter brown soil (7.5 YR 5/2). The unit began to reveal a line of rocks along the south profile of the unit. Found 86 sherds and 2 lithic shards. Depths: NW: 0.49 m., NE: 0.48 m., SW: 0.39 m., SE: 0.31 m.

EZ-27C-4 (Lot 4): Harder light brown (10 YR 6/2) with a fill of large limestone rocks. Exposed a wall in the south profile of the unit that angled at 78º east to west. This layer of fill was very deep and ended at an arbitrary point in order to follow the wall west in a new unit. Recovered 25 ceramic sherds. Depths: NW: 0.65 m., NE: 0.6 m., SW: 0.5 m., SE: 0.46 m.

EZ-27C-5

Description: The objective of this unit was to continue the central trench in Str. T1-11 It was located on the central N-S axis, 2 m north of unit C-4
Dimensions: 2x2 m, 1 m D.

EZ-27C-5 (Lot 1): Dark brown humus (7.5 YR 3/2) with roots and small rocks. Recovered 11 ceramic sherds and 1 figurine fragment. Depths: NW: 0.06 m., NE: 0.07 m., SW: 0.13 m., SE: 0.10 m.

EZ-27C-5 (Lot 2): Loose dark brown soil (10 YR 3/2) with small and medium rocks. Excavated 29 ceramic sherds. Depths: NW: 0.10m., NE: 0.11 m., SW: 0.28 m., SE: 0.28 m.

EZ-27C-5 (Lot 3): Gravel in loose light brown soil (10 YR 5/2). The sequence of layers in this unit appeared to be the same as units C-3 and C-4. The lo tended at an arbitrary depth in order to open up other units. Found 20 ceramic sherds. Depths: NW: 0.11 m., NE: 0.13 m., SW: 0.35 m., SE: 0.36 m.

EZ-27C-5 (Lot 4): Loose brown soil (10 YR 5/2) with gravel. The lot was a continuation of the prior lot, with the same characteristics. Recovered 43 sherds and 1 lithic shard. Depths: NW: 0.32 m., NE: 0.41 m., SW: 0.73 m., SE: 0.85 m.

EZ-27C-5 (Lot 5): Brown soil (10 YR 5/2) with gravel. Yielded 140 ceramic sherds, 2 lithic shards, 1 obsidian shard, and 1 carbon sample. Depths: NW: 0.5 m., NE: 0.64 m., SW: 1.0 m., SE: 1.0 m.

EZ-27C-5 (Lot 5 - division): Brown soil (10 YR 5/2). This lot represents a 10 cm wide cut into the south profile of C-5 in the quadrant that divides C-5 and C-10. This division was composed of the same layers found in C-5, beginning with humus, followed by dark brown soil with small rocks, and brown soil with gravel, Recovered 95 ceramic sherds. Depths: NW: 0.5 m., NE: 0.64 m., SW: 1.1 m., SE: 1.1 m.

EZ-27C-6

Description: The objective of this unit was to follow the wall uncovered in unit C-4. The unit was located on the central axis of the mound, immediately west of C-11.
Dimensions: 2x2 m, 0.57 m D.

EZ-27C-6 (Lot 1): Dark brown humus (7.5 YR 3/2) with large roots. Recovered 59 ceramic sherds, 3 lithic shards, and 1 obsidian shard. Depths: NW: 0.25 m., NE: 0.12 m., SW: 0.11 m., SE: 0.8 m.

EZ-27C-6 (Lot 2): Loose, dark brown soil (7.5 3/2). Excavated 169 ceramic sherds and 7 lithic fragments. Depths: NW: 0.30 m., NE: 0.25 m., SW: 0.23 m., SE: 0.16 m.

EZ-27C-6 (Lot 3): Fine dark brown soil (10 YR 4/2) with gravel. The gravel was located in the north half of the quadrant, where the wall ran through the unit, while the south half contained loose soil. Excavated 141 ceramic sherds, 1 carbon sample, 5 lithic fragments, and 2 obsidian fragments. Depths: NW: 0.45 m., NE: 0.40 m., SW: 0.29 m., SE: 0.23 m.

EZ-27C-6 (Lot 4): Gravel in the north half the unit and large rocks forming a wall in the north profile of the unit. Uncovered a poorly preserved floor in the south half of the unit below brown soil (10 YR 5/2). Recovered 135 ceramic sherds, 2 bone fragments, 2 lithic fragments, and 1 grinding Stone. Depths: NW: 0.57 m., NE: 0.50 m., SW: 0.48 m., SE: 0.30 m.

EZ-27C-7

Description: The objective of this unit was to follow the wall uncovered in unit C-4. The unit was located on the central axis of the mound, immediately east of unit C-4.
Dimensions: 2x2 m, 0.89 m D.

EZ-27C-7 (Lot 1): Dark brown humus (7.5 YR 3/2). Found 7 ceramic sherds, 28 lithic shards, and 1 obsidian shard. Depths: NW: 0.09 m., NE: 0.14 m., SW: 0.09 m., SE: 0.07 m.

EZ-27C-7 (Lot 2): Gravel with loose dark brown soil (7.5 YR 4/2). Revealed the complete neck of an olla in the profile of the northeast corner of the unit, as well as 119 ceramic sherds, 74 lithic shards, 2 obsidian shards, and 1 grinding Stone. Depths: NW: 0.32 m., NE: 0.17 m., SW: 0.45 m., SE: 0.29 m.

EZ-27C-7 (Lot 3): Brown soil (20 YR 5/2) with a fill of large rocks. Revealed the wall found in C-4 in the south profile of the unit. Excavated 100 ceramic sherds, 1 bone fragment, 1 shell fragment, and 26 lithic fragments. Depths: NW: 0.75 m., NE: 0.89 m., SW: 0.42 m., SE: 0.59 m.

EZ-27C-8

Description: The objective of this unit was to find the southeast corner of Str. T1-11. The unit was located at the southeast limit of the structure.
Dimensions: 2x2 m, 0.6 m D.

EZ-27C-8 (Lot 1): Dark brown humus (7.5 YR 3/2). Uncovered the southeast corner of the structure in the northwest corner of the unit, below a large tree. Recovered 45 ceramic sherds. Depths: NW: 0.43 m., NE: 0.16 m., SW: 0.11 m., SE: 0.10 m.

EZ-27C-8 (Lot 2): Dark brown soil (10 YR 4/2) with large rocks. Ended the lot when excavations arrived at a layer of fill. Found 37 sherds, 9 lithic shards in the lot. Depths: NW: 0.6 m., NE: 0.28 m., SW: 0.22 m., SE: 0.2 m.

EZ-27C-9

Description: The objective of this unit was to find the northeast corner of Str. T1-11. The unit was located at the northeast limit of the structure.
Dimensions: 2x2 m, 1.7 m D.

EZ-27C-9 (Lot 1): Dark brown humus (7.5 YR 3/2). Excavated 12 ceramic sherds, 11 lithic shards, and 2 obsidian shards. Depths: NW: 0.07 m., NE: 0.7 m., SW: 0.07 m., SE: 0.07 m.

EZ-27C-9 (Lot 2): Dark brown soil (7.5 YR 3/2) with medium-sized rocks in the Norwest corner of the unit. Recovered 25 ceramic sherds, 1 bone fragment, and 11 lithic shards. Depths: NW: 0.1 m., NE: 0.09 m., SW: 0.2 m., SE: 0.1 m.

EZ-27C-9 (Lot 3): Soft brown soil (10 YR 5/2) with rocky fill. Revealed the northeast corner of the structure in the southwest profile of the unit, surrounded by grey colored soil. Excavated 65 ceramic sherds, 4 bones, and 1 wood sample, 14 lithic shards, and 1 obsidian shard. Depths: NW: 0.16 m., NE: 0.1 m., SW: 0.54 m., SE: 0.20 m.

EZ-27C-9 (Lot 4): Loose grey soil (7.5 YR 6/1 in the south half of the unit. In this lot we exposed a platform underneath a block marking the northeast corner of Str. T1-11. Yielded 23 ceramic

sherds, 1 semi-complete bowl, 3 bone fragments, and 1 lithic fragment. Depths: NW: 0.26 m., NE: 0.15 m., SW: 0.7 m., SE: 0.3 m.

EZ-27C-9 (Lot 5): Brown soil (7.5 YR 5/2) in the north half of the unit at the same level as and reaching below Lot 4. A very high quantity of lithic material appeared in this lot, as well as 244 ceramic sherds, 1 figurine fragment, 25 bone fragments, 1 hand axe, 2 shell fragments, and 14 obsidian fragments. The total lithic material recovered formed a layer that was visible in the south and east profiles of the unit. This lot most likely represented a layer of debitage due to chert tool production. Depths: NW: 0.37 m., NE: 0.19 m., SW: 0.84 m., SE: 0.4 m.

EZ-27C-9 (Lot 6): Light brown soil (10 YR 6/1) with gravel. Recovered 36 ceramic sherds, 29 lithic fragments, and 1 obsidian fragment. Depths: NW: 0.48 m., NE: 0.3 m., SW: 0.94 m., SE: 0.50 m.

EZ-27C-9 (Lot 7): Loose light brown soil (10 YR 7/2) with a fill composed of medium to large-sized rocks. Found pieces of a floor that deteriorated in the southwest corner of the unit. Yielded 42 ceramic sherds, 2 bone fragments, 2 shell fragments, and 16 lithic fragments**.** Depths: NW: 0.51 m., NE: 0.34 m., SW: .1.15 m., SE: 0.57 m.

EZ-27C-9 (Lot 8): Brown mortar (10 YR 5/1). The layer of mortar that contained lots of materials, including 425 ceramic sherds, 2 whistle-figurines, 1 figurine fragment, 24 lithic shards, 6 obsidian shards, 1 grinding Stone, 2 carbon samples, and the first bones from Burial 38. Reached Burial 38 in the southwest quadrant of the unit. Depths: NW: 0.81 m., NE: 0.64 m., SW: 1.48 m., SE: 0.87 m.

EZ-27C-9 (Lot 9 - Burial 38): Burial 38 was uncovered in a layer of construction mortar. The burial was located in the same brown mortar (10 YR 5/1) in the previous lot. There were no indications of burial architecture or indications that the burial had been disturbed. The body was small, about the size of a very young child, in a flexed position on their right side, facing west, with their head to the north and feet to the south. The skeleton was almost complete, but the mortar matrix made it difficult to excavate the small and fragile bones. For this reason the bones were very fragmented. It is probably that fragments of the cranium were bagged in the previous lot. There were no materials or offerings placed with the remains. In addition to the human remains, we recovered 14 ceramic sherds, 1 carbon sample, and 2 soil samples. The lot was approximately 0.65 x 0.4 m and 0.6 m in depth. . Depths: NW: 1.53 m., NE: 1.54 m., SW: 1.54 m., SE: 1.53 m.

EZ-27C-9 (Lot 10): Light grey mortar (10 YR 5/2) with small and medium-size rocks continued from Lots 8 and 9. Revealed a small area of poorly preserved floor in the southwest corner of the unit. Yielded 266 ceramic sherds, 30 lithic fragments, and 1 carbon sample. Depths: NW: 1.1 m., NE: 0.84 m., SW: 1.66 m., SE: 1.17 m.

EZ-27C-9 (Lot 11): Divided the unit in half and excavated the north half. Brown soil (10 YR 5/2) on top of bedrock. Excavated 16 ceramic sherds and 4 lithic fragments. Depths: NW: 1.2 m., NE: 1.12 m., SW: 1.7 m., SE: 1.09 m.

EZ-27C-10
Description: The objective of this unit was to continue the central trench in Str. T1-11 It was located on the central N-S axis, between units C-4 and C-5.
Dimensions: 2x2 m, 1 m D.

EZ-27C-10 (Lot 1): Dark brown humus (7.5 YR 3/2) with roots and small rocks. Found 55 ceramic sherds. Depths: NW: 0.19 m., NE: 0.14 m., SW: 0.14 m., SE: 0.15 m.

EZ-27C-10 (Lot 2): Loose dark brown soil (10 YR 4/2) with large rocks. Yielded 41 sherds and 5 lithic shards. Depths: NW: 0.36 m., NE: 0.29 m., SW: 0.25 m., SE: 0.34 m.

EZ-27C-10 (Lot 3): Loose dark brown soil (10 YR 5/2). Found d90 sherds, 1 figurine fragment, and 6 lithic shards. Depths: NW: 0.49 m., NE: 0.48 m., SW: 0.41 m., SE: 0.5 m.

EZ-27C-10 (Lot 4): Layer of gravel in soft light brown soil (10 YR 7/2). Inside the fill there was an almost complete marine Shell, a piece of coral, and a complete miniature vase with a lid that contained a single phalange inside. Also recovered 18 ceramic sherds and 1 lithic fragment. Depths: NW: 0.72 m., NE: 0.63 m., SW: 0.62 m., SE: 0.64 m.

EZ-27C-10 (Lot 5): Light brown soil (10 YR 7/1) with large fill rocks and 93 ceramic sherds. Depths: NW 1.1 m., NE: 1 m., SW: 0.74 m., SE: 0.76 m.

EZ-27C-10 (Lot 6): Light brown mortar (10 YR 7/1) with large fill rocks. Recovered 458 ceramic sherds, 1 figurine fragment, and 27 lithic fragments. Ended the lot at an arbitrary point to divide the unit by half, to excavated faster. Depths: NW: 1.28 m., NE: 1.24 m., SW: 1.07 m., SE: 1.24 m.

EZ-27C-10 (Lot 7): The same mortar from previous lots was found in this lot (10 YR 6/2). This lot was divided in half for the sake of time and the south half was excavated. Recovered ceramics and 1 lithic fragment. Depths: NW: 1.83 m., NE: 1.77 m., SW: 1.7 m., SE: 1.79 m.

EZ-27C-10 (Lot 8): Light grey soil (10 YR 7/1). Excavated 23 sherds and one fragment of worked shell before reaching bedrock. Depths: NW: 2.09 m., NE: 2.08 m., SW: 2.05 m., SE: 1.93 m.

EZ-27C-11
Description: The objective of this unit was to continue the central trench in Str. T1-11 It was located on the central N-S axis, between units C-3 and C-4.
Dimensions: 2x2 m, 1.07 m D.

EZ-27C-11 (Lot 1): Dark brown humus (7.5 YR 2.5/2) with roots. Found 12 ceramic sherds and 7 lithic fragments. Depths: NW: 0.06 m., NE: 0.03 m., SW: 0.05 m., SE: 0.03 m.

EZ-27C-11 (Lot 2): Loose dark brown soil (7.5 YR 3/2). Yielded 120 sherds, 31 lithic shards, and 1 obsidian shard. Depths: NW: 0.14 m., NE: 0.04 m., SW: 0.13 m., SE: 0.05 m.

EZ-27C-11 (Lot 3): Brown soil (10 YR 6/1) with gravel in the north half of the unit. In the north profile the rubble wall from C-5 was uncovered. In front of the wall, in the northeast quadrant of the unit we identified a ceramic deposit (Lot 4). Recovered 185 ceramic sherds, 9 shell fragments, 4 bone fragments, 82 lithic fragments, and 2 obsidian fragments. Depths: NW: 0.3 m., NE: 0.31 m., SW: 0.38 m., SE: 0.24 m.

EZ-27C-11 (Lot 4): Brown soil (10 YR 6/1) with a dense deposit of ceramic sherds in front of the wall uncovered in Lot 3. Recovered 370 sherds, 3 bone fragments, 3 lithic fragments, and 1 obsidian fragment. The deposit was approximately 0.5 x 0.5 m in size. Depths: NW: 0.22 m., NE: 0.22 m., SW: 0.23 m., SE: 0.17 m.

EZ-27C-11 (Lot 5): Light brown mortar (10 YR 7/1). Yielded 21 ceramic sherds, 6 lithic shards, and 1 carbon sample. Depths: NW: 0.69 m., NE: 0.72 m., SW: 0.73 m., SE: 0.56 m.

EZ-27C-11 (Lot 6): Light brown mortar (10 YR 7/1) with gravel. Excavated 100 ceramic sherds, 6 lithic fragments, 1 bone fragment, and 1 carbon sample. Depths: NW: 1.07 m., NE: 0.96 m., SW: 0.9 m., SE: 0.73 m.

EZ-27C-12

Description: The objective of this unit was to extend excavations on the northeast corner of Str. T1011 to find the extent of the platform uncovered in unit C-9. This unit is located north of Str. T1-11 and adjoins with the northwest corner of unit C-9. The unit was placed between the middle of two grid squares, with 50 cm east and 50 cm west of the W border of unit C-9. Dimensions: 1x1 m, 0.58 m D.

EZ-27C-12 (Lot 1): Dark brown humus (7.5 YR 3/2). Recovered 5 ceramic sherds and 3 lithic fragments. Depths: NW: 0.06 m., NE: 0.05 m., SW: 0.11 m., SE: 0.09 m.

EZ-27C-12 (Lot 2): Loose dark brown soil (10 YR 4/3) with small rocks. Yielded 43 ceramic sherds, 1 bone fragment, and 44 lithic fragments. Depths: NW: 0.17 m., NE: 0.22 m., SW: 0.2 m., SE: 0.17 m.

EZ-27C-12 (Lot 3): Dark brown soil (10 YR 4/2) with platform fill. Revealed the north edge of the platform. Found 16 ceramic sherds and 11 lithic fragments. Depths: NW: 0.27 m., NE: 0.28 m., SW: 0.58 m., SE: 0.55 m.

EZ-27C-13

Description: The objective of this unit was to extend west of unit C-9 in order to uncover the superstructure and platform revealed in C-9. The unit was located west of C-9. Dimensions: 2x2 m, 0.53 m D.

EZ-27C-13 (Lot 1): Dark brown humus (10 YR 4/2) with roots. Yielded 10 ceramic sherds and 53 lithic fragments. Depths: NW: 0.0 m., NE: 0.03 m., SW: 0.08 m., SE: 0.05 m.

EZ-27C-13 (Lot 2): Loose dark brown soil (10 YR 4/2) with a fill of small rocks. Excavated 16 sherds, 29 lithic fragments, and 1 obsidian fragment. Depths: NW: 0 m., NE: 0.13 m., SW: 0.1 m., SE: 0.11 m.

EZ-27C-13 (Lot 3): Brown soil (10 YR 5/2) with fill. The platform corner that appeared in unit C-9 continues west in the south profile of this unit. Recovered 16 ceramic sherds, 34 lithic fragments, and 1 grinding stone. Depths: NW: 0.1 m., NE: 0.1 m., SW: 0.53 m., SE: 0.39 m.

EZ-27C-14

Description: The objective of this unit was to extend unit C-5 north in order to find the north edge of Str. T1-11. The unit was located immediately north of unit C-5.
Dimensions: 2x2 m, 0.57 m D.

EZ-27C-14 (Lot 1): Dark brown humus (10 YR 4/3) with 44 ceramic sherds and 10 lithic fragments. Depths: NW: 0.06 m., NE: 0 m., SW: 0.15 m., SE: 0.27 m.

EZ-27C-14 (Lot 2): Brown soil (10 YR 5/2) with 298 sherds and 1 figurine fragment. Depths: NW: 0.1 m., NE: 0.24 m., SW: 0.58 m., SE: 0.54 m.

EZ-27C-14 (Lot 3): Dark brown soil (10 YR 4/2). Found a small section of poorly preserved floor in the south half of the unit and fill below the floor level throughout the rest of the unit. Recovered 127 ceramic sherds. Depths: NW: 0.35 m., NE: 0.42 m., SW: 0.57 m., SE: 0.54 m.

EZ-27C-15

Description: The objective of this unit was to find the northeast corner of the superstructure in the east side of Str. T1-11. The unit was located 2m west of unit C-13 between the middle of two grid squares.
Dimensions: 2x2 m, 0.1 m D.

EZ-27C-15 (Lot 1): Dark brown soil (10 YR 4/3). Noted more rocks along the south profile of the unit. Excavated 5 ceramic sherds and 7 lithic fragments. Depths: NW: 0.03 m., NE: 0.02 m., SW: 0.05 m., SE: 0.03 m.

EZ-27C-15 (Lot 2): Revealed a wall in the south half of the unit oriented E-W, and a poorly preserved section of floor in front of the wall (to the north). Yielded 5 ceramic sherds and 62 lithic fragments. Depths: NW: 0.11 m., NE: 0.05 m., SW: 0.02 m., SE: 0.03 m.

EZ-27C-16

Description: the objective of this unit was to follow the wall discovered in unit C-15. This unit was located immediately west of unit C-15 between the middle of two grid squares.
Dimensions: 2x2 m, 0.3 m D.

EZ-27C-16 (Lot 1): Dark brown humus (10 YR 2/2), with 6 ceramic sherds and 1 lithic fragment. Depths: NW: 0.06 m., NE: 0.7 m., SW: 0 m., SE: 0.09 m.

EZ-27C-16 (Lot 2): Loose brown soil (10 YR 5/3). Divided the unit down the middle and followed the excavations in the north half of the unit. The wall identified in unit C-15 continued through unit C-16 and ended in a corner that then turned south. This corner is identified as the northwest corner of the superstructure on the east side of Str. T1-11. Found 7 ceramic sherds, 1 bone fragment, and 9 lithic fragments in this lot. Depths: NW: 0.18 m., NE: 0.30 m., SW: 0.04 m., SE: 0.12 m.

EZ-27C-17

Description: The objective of this unit was to follow the east edge of Str. T1-11 south. The unit was located immediately south of Unit C-9.
Dimensions: 2x2 m, 0.14 m D.

EZ-27C-17 (Lot 1): Dark brown humus (7.5 YR 3/2) without artefacts. Depths: NW: 0.13 m., NE: 0.06 m., SW: 0.2 m., SE: 0.09 m.

EZ-27C-17 (Lot 2): Dark brown soil (7.5 YR 3/2) with a layer of rocks without artefacts. Did not pursue this unit further for the purpose of time. Depths: NW: 0.14 m., NE: 0.06 m., SW: 0.2 m., SE: 0.1 m.

Results: The excavations of sub-operation C revealed various phases of construction and different activities performed by the occupants of La Luna. Based on the architecture that was uncovered during excavations, it appears that Str. T1-11 had two superstructures on each end of the base platform, with an open space between the two. Excavations of the structure's northeast corner (EZ-27C-9 and EZ-27C-13) revealed a floor just above bedrock, below a layer of fill with another floor on top of that. Above the top floor sat a platform with two additional construction tiers. Unfortunately the floors of Str. T1-11 were poorly preserved and architectural features were difficult to see in profiles.

In addition to the architecture we discovered the remains of ritual and domestic activities around Str. T1-11. We found a layer of lithic debitage (EZ-27C-9-5) from producing chert tools off of the northeast corner of the structure. Below this lithic layer we uncovered Burial 38 (EZ-27C-9-9), the remains of a young child placed in construction fill.

On the axis of the structure we excavated a ceramic deposit in front of the structure (EZ-27C-11-4). The deposit was composed of a dense concentration of sherds, mostly large sherds from ollas, in a focused area. Given these qualities the feature appears to be ritual in nature, possibly a termination deposit. The ceramic deposit was located in a layer of gravel fill, the first layer of fill in front of the south wall of Str. T1-11.

The excavations of sub-operation C revealed a mound with one basal platform and two additional tiers on each side. The mound hosted ritual and domestic production activities. A range of rituals were represented in the building, including the chultun deposit beneath the structure, the burial in the northeast corner, and the ceramic deposit on the final construction phase. It is clear that the activities identified at this structure occurred during the Late and Terminal Classic.

EZ-27D-11

Description: The objective of this unit was to start a trench down the middle of Str. T1-3. This unit was located along the north wall of the structure, down the central axis.
Dimensions: 2 m L x 1 m W, 0.49 m D.

EZ-27D-11 (Lot 1): Dark brown humus (10 YR 4/3) with large roots and 6 ceramic sherds. Depths: NW: 0.04 m., NE: 0.03 m., SW: 0.03 m., SE: 0.03 m.

EZ-27D-11 (Lot 2): Fill of small rocks in dark brown soil (10 YR 4/2). Uncovered two small architectural blocks in the northeast quadrant of the unit. Excavated 116 ceramic sherds and 2 lithic shards. Depths: NW: 0.07 m., NE: 0.1 m., SW: 0.07 m., SE: 0.07 m.

EZ-27D-11 (Lot 3): Light brown soil (10 YR 6/2). The two blocks uncovered in Lot 2 were part of a small step on the north edge of the structure with a section of floor in front of it. Recovered 11 ceramic sherds, 1 shell fragment, and 1 lithic fragment. Depths: NW: 0.48 m., NE: 0.49 m., SW: 0.19 m., SE: 0.19 m.

EZ-27D-12
Description: The objective of this unit was to extend the trench along the central axis of Str. T1-3. The unit was located immediately south of unit D-11.
Dimensions: 2 m L x 1 m W, 2.82 m D.

EZ-27D-12 (Lot 1): Dark brown humus (10 YR 3/2) with 68 ceramic sherds, 8 lithic fragments, and 7 obsidian fragments. Depths: NW: 0.19 m., NE: 0.21 m., SW: 0.35 m., SE: 0.28 m.

EZ-27D-12 (Lot 2): Compacted light brown soil (5 YR 6/1) with fill that was very compacted at the center of the structure. Excavated 62 ceramic sherds, 1 figurine fragment, 6 lithic fragment, and 4 obsidian fragment. Depths: NW: 0.76 m., NE: 0.65 m., SW: 0.75 m., SE: 0.73 m.

EZ-27D-12 (Lot 3): Compacted light brown soil (7.4 YR 6/1) in a dense fill of large rocks. Yielded 28 ceramic sherds. Depths: NW: 1.07 m., NE: 1.08 m., SW: 1.08 m., SE: 1.05 m.

EZ-27D-12 (Lot 4): Dark brown soil (10 YR 4/2) with a fill of very large rocks. Recovered 44 ceramic sherds, 1 bone fragment, 3 lithic fragments, and 2 carbon samples. Depths: NW: 1.2 m., NE: 1.15 m., SW: 1.3 m., SE: 1.27 m.

EZ-27D-12 (Lot 5): Divided the unit in half and continued excavating in the south half. Dark brown loose soil (10 YR 4/2) with a fill of small rocks and 30 ceramic sherds. Depths: NW: 1.3 m., NE: 1.27 m., SW: 1.32 m., SE: 1.32 m.

EZ-27D-12 (Lot 6): Compacted light brown soil (10 YR 7/1) with a hard fill of large rocks. At 1.9 m we found a wall in the west profile of the unit. This wall ran N-S and was probably part of an early version of Str. T1-3. Below the layer of hard fill, at a depth of 2.3 m, excavators reached a new layer of loose soil with gravel before arriving at bedrock. Excavated 296 ceramic sherds, 4 carbon samples, 1 bone fragment, 8 lithic fragments, and 1 obsidian fragment. Depths: NW: 2.5 m., NE: 2.55 m., SW: 2.82 m., SE: 2.8 m.

EZ-27D-13
Description: The objective of this unit was to find the northeast corner of Str. T1-3, so the unit was located at the northeast extent of the mound.
Dimensions: 2x2 m, 0.55 m D.

EZ-27D-13 (Lot 1): Dark brown humus (2.5YR 2.5/2) with roots. A small amount of gravel was located along the south profile of the unit where we anticipated architecture. Excavated 6 ceramic sherds. Depths: NW: 0.03 m., NE: 0.03 m., SW: 0.05 m., SE: 0.05 m.

EZ-27D-13 (Lot 2): Dark brown soil (5 YR 4/3). At a depth of 0.38 m there was well-preserved floor covered with large collapse rocks. Underneath the collapse was a long bone and a fragmented bowl in the northwest quadrant of the square. Below the collapse was a wall made of two rows of worked limestone rocks. The wall was oriented E-W in the south profile of the unit. Recovered 69 ceramic sherds, 1 spindle whorl, 1 carbon sample, 2 bone fragments, 15 lithic fragments, and 9 obsidian fragments. Depths: NW: 0.55 m., NE: 0.5 m., SW: 0.42 m., SE: 0.3 m.

EZ-27D-14
Description: The objective of this unit was to extend unit D-13 to uncover the northeast corner of Str. T1-3. The unit was located immediately southeast of unit D-13, with about 20 cm where the east wall of unit D-13 aligned with the west wall of unit D-14 in the southeast corner of unit D-13.
Dimensions: 2x2 m, 0.64 m D.

EZ-27D-14 (Lot 1): Dark brown humus (2.5 YR 2.5/1) with lots of roots. Recovered 17 ceramic sherds and 1 lithic fragment. Depths: NW: 0.1 m., NE: 0.1 m., SW: 0 m., SE: 0.1 m.

EZ-27D-14 (Lot 2): Light brown soil (10 YR 6/2). We uncovered the northeast corner of the structure. First workers removed large rocks, probably from collapse or a loose fill from a subsequent Terminal Classic phase of construction. Below this layer continued the wall of architectural blocks located in unit D-13, and the corner of the structure which then turned to run N-S. Sections of floor were preserved in front of the walls. The soil on top of the floor was loose, while the soil along the wall was compacted and greyish. Interestingly, there were cuts in the floor where rocks from the N-S wall of the structure had been removed at some point after the wall's construction. The lot yielded 80 ceramic sherds and 10 lithic fragments.
Depths: NW: 0.48 m., NE: 0.35 m., SW: 0.25 m., SE: 0.42 m.

EZ-27D-14 (Lot 3): Loose brown soil (10 YR 5/2) with fill. In this lot workers removed the rocks within the structure that sat above the level of the wall. These rock s were probably from a layer of fill or a final layer of loose construction fill. Recovered 127 ceramic sherds. Depths: NW: 0.64 m., NE: 0.4 m., SW: 0.55 m., SE: 0.4 m.

EZ-27D-15
Description: The objective of this unit was to explore Str. T1-3 in search of lateral burials, similar to those uncovered in structures T1-7 and T1-10. The unit was located in the center of the east half of Str. T1-3.
Dimensions: 2x2 m, 2.35 m D.

EZ-27D-15 (Lot 1): Dark brown humus (2.5 YR 2.5/1) with roots. Excavated 17 ceramic sherds and 1 lithic shard. Depths: NW: 0.04 m., NE: 0.05 m., SW: 0.04 m., SE: 0.05 m.

EZ-27D-15 (Lot 2): Loose dark brown soil (10 YR 3/2) with small rocks. After 0.1 m reached a level of gravel, which was followed by a layer hard fill with large rocks. At a depth of 0.9 m we divided the lot in half and continued to excavated the east half of the lot to get through the hard fill faster. Recovered 284 ceramic sherds and 3 lithic fragments. Depths: NW: 0.1 m., NE: 0.12 m., SW: 0.05 m., SE: 0.09 m.

EZ-27D-15 (Lot 3): Below the hard fill was a layer of grey mortar (10 YR 7/1). We uncovered a wall oriented E-W that bisected the unit. South of the wall was a grey mortar construction fill which was left intact and excavations continued in front of (north of) the wall. The lot ended upon reaching bedrock. Yielded 90 ceramic sherds and 2 obsidian shards. Depths: NW: 2.28 m., NE: 2.35 m., SW: 1.36 m., SE: 01.2 m.

Results: The investigation of sub-operation D revealed well preserved architectural features from the final phase of occupation of Str. T1-3. We uncovered the northeast corner of Str. T1-3 and the final floor in front of the structure. The north and east walls of the structure were still partially intact, but rocks from the east wall had been removed from the floor and reused elsewhere. Along the axis of the building a trench revealed a floor and small step in front of the structure, three levels of construction, and the west wall of the first version of the structure. Although the excavations at Str. T1-3 did not reveal any primary deposits, they did clarify the architectural sequence and the final phase of the building.

Conclusions
The investigations of structures T1-11 and T1-3 were extensive, exposing the final phases of each structure while also revealing the architectural sequence of each. Str. T1-11 was a building of multiple tiers on each end and an open space in the center. Although the architecture was poorly preserved, it was possible to see a few patches of floor and distinct layers of fill, mainly gravel, followed by large limestone rocks, and mortar. The same fills were used in the construction of Str. T1-3, culminating in three visible phases, the ultimate phase being a single platform with a well-made floor in front of the structure. One interesting feature of Str. T1-3 was the cuts into the floor that indicated where blocks once stood as part of the east wall of the structure, but were later removed. This is an unusual feature, but it most likely corresponds to Terminal Classic activity when construction materials were sometimes reused from Late Classic edifices (de Carteret 2017). It is possible that in a time when high-quality building materials were rare, the inhabitants of La Luna removed bocks from existing structures for new construction.

In general the artefacts recovered from La Luna are indicative of high-status. The combination of many polychrome ceramics with imported objects like jade and marine shell show that the occupants of the main terrace at La Luna were rich with connections to broader

exchange networks. Although the majority of imported artefacts came from Str. T1-11, the largest central structure, obsidian and fine ware ceramics were also found at Str. T1-3.

A layer of chert debitage off of the northeast corner of Str. T1-11 indicates that the residents there made stone tools. This is the only example of a production area at La Luna, but at the very least it demonstrates that the people at the group made their own instruments. Finally, the finds in Str. T1-11 confirm that many ritual activities surrounded this structure. The ceremonial function of this structure became apparent in 2018 when a chultun containing a ritual cache was discovered beneath Str. T1-11. The cache consisted of a vase with the Pa'ka'n emblem glyph, carbon, blackened soil, burnt stucco, and a deposit of large broken pots. Following these investigations we excavated the architecture above the chultun in 2019 and found the remains of a young child in mortar fill. At the end of its occupation, the inhabitants of La Luna performed a termination ritual in front of Str. T1-11 with broken dishes smashed on top of each other. This ceremony suggests that Str. T1-11 was an important religious location at La Luna. In addition to these features, ritual artefacts were recovered from the fill of the mound, including whistles and a miniature vase with a phalange inside of it.

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APPENDIX B: EXCAVATION UNITS

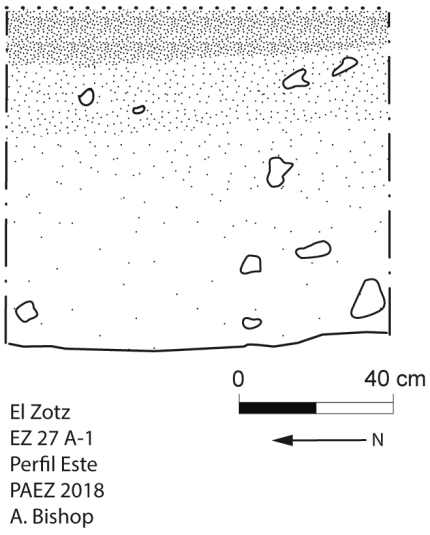


Figure 1: EZ 27A-1, East Profile (A. Bishop)

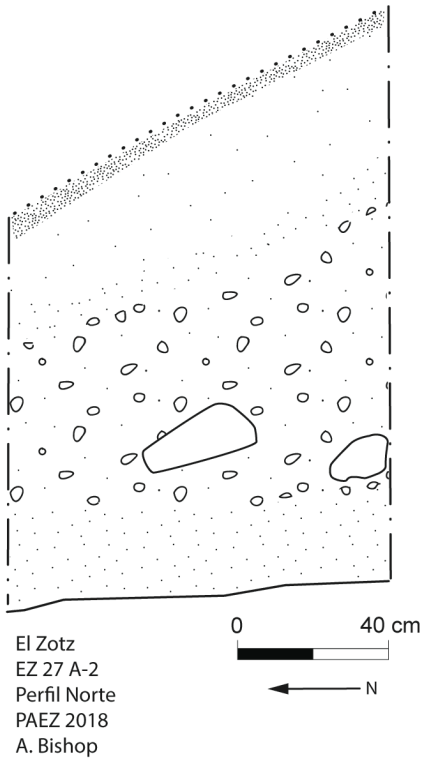


Figure 2: EZ 27A-2, North Profile (A. Bishop)

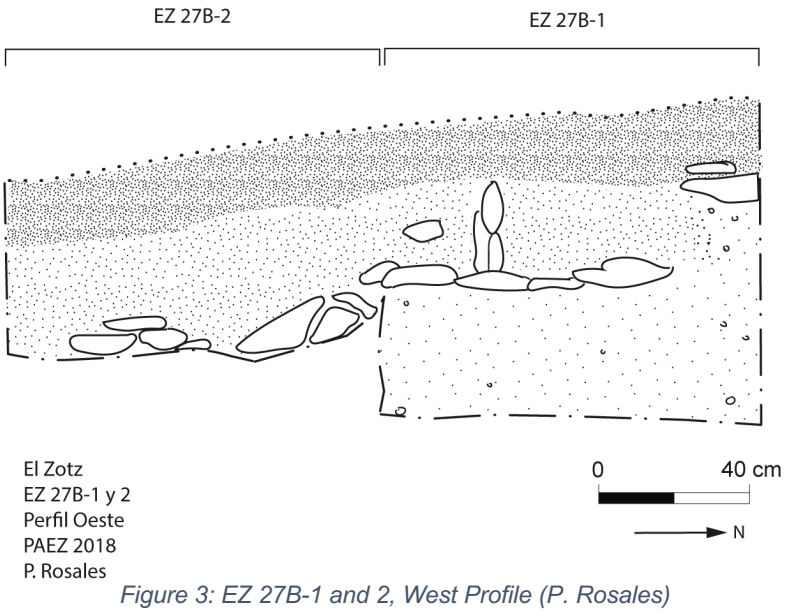


Figure 3: EZ 27B-1 and 2, West Profile (P. Rosales)



Figure 4: EZ 27B-1 and 2, East Profile (P. Rosales)

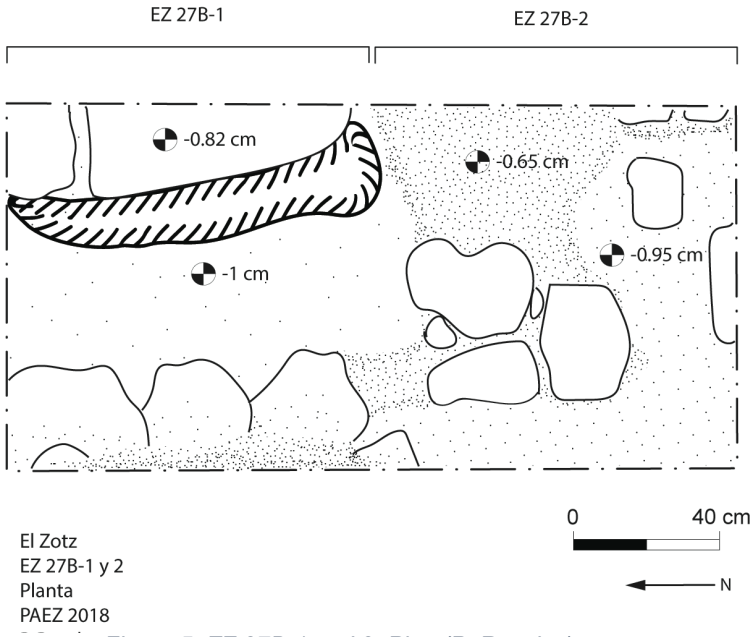


Figure 5: EZ 27B-1 and 2, Plan (P. Rosales)

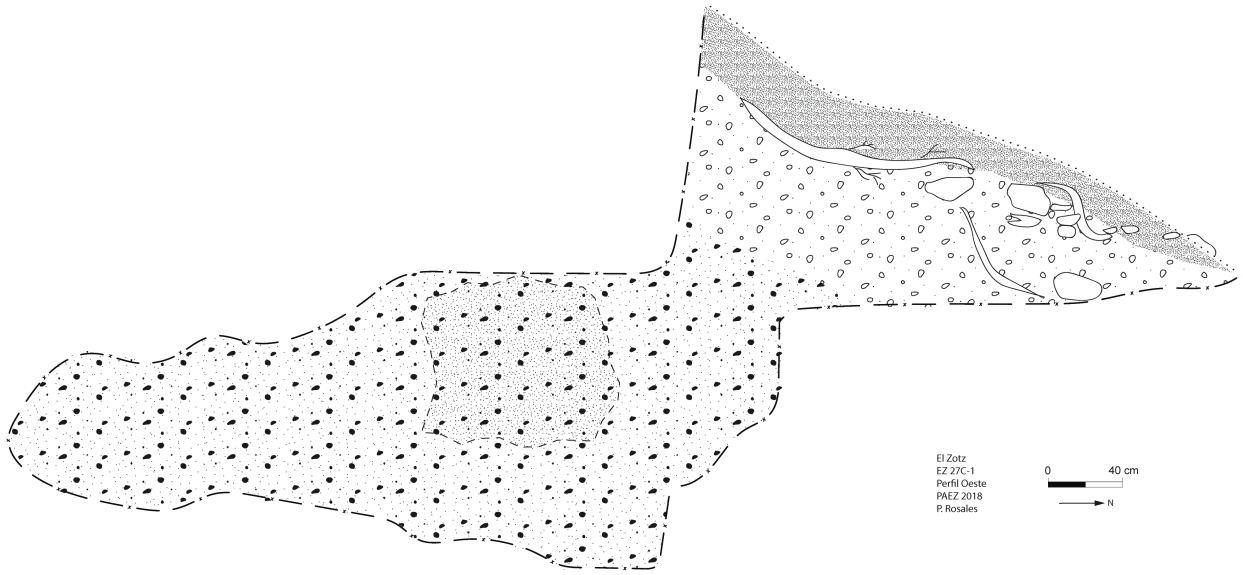


Figure 6: EZ 27C-1, West Profile (P. Rosales)



Figure 7: EZ 27C-1, Plan (P. Rosales)

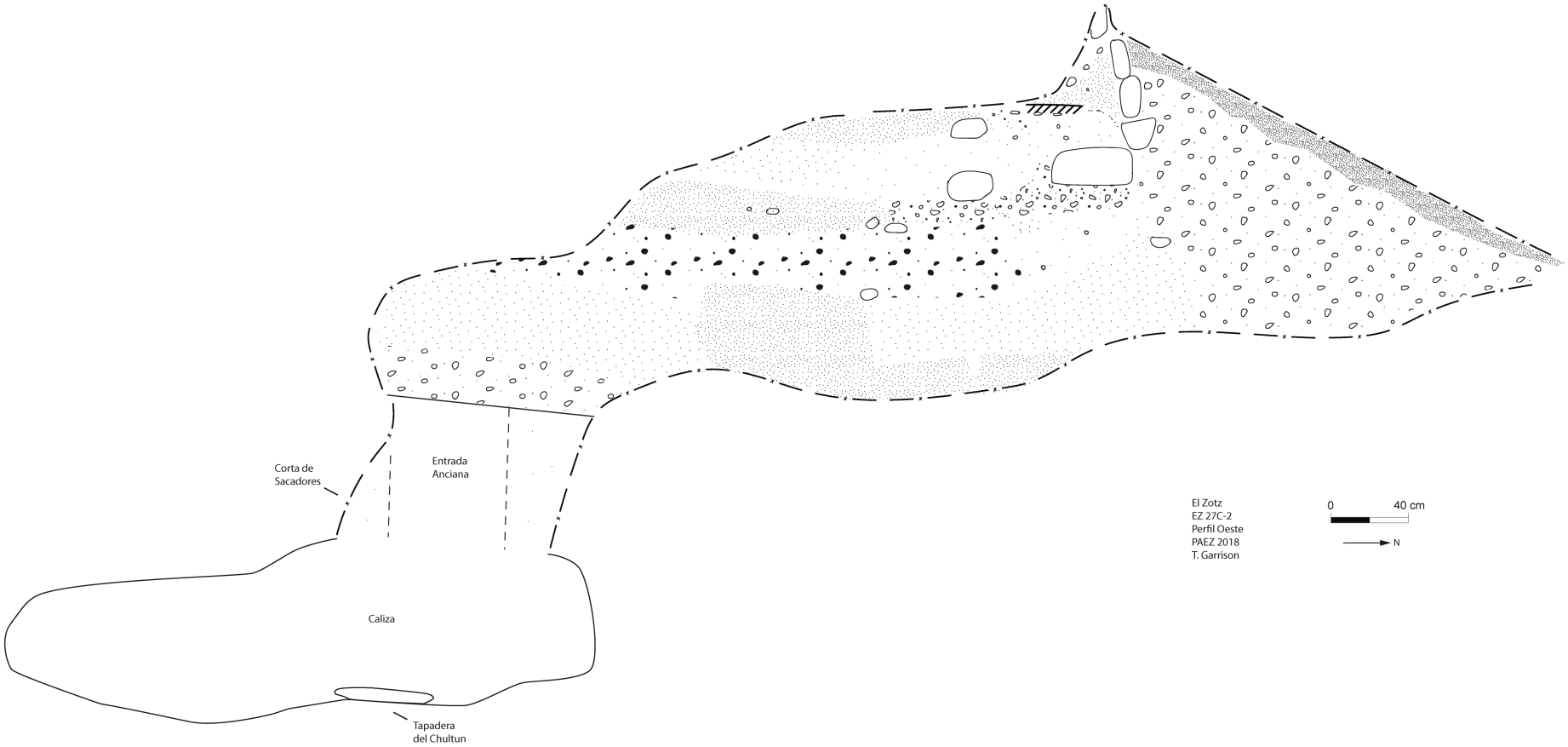


Figure 8: EZ 27C-2, West Profile (T. Garrison and D. Baldwin)

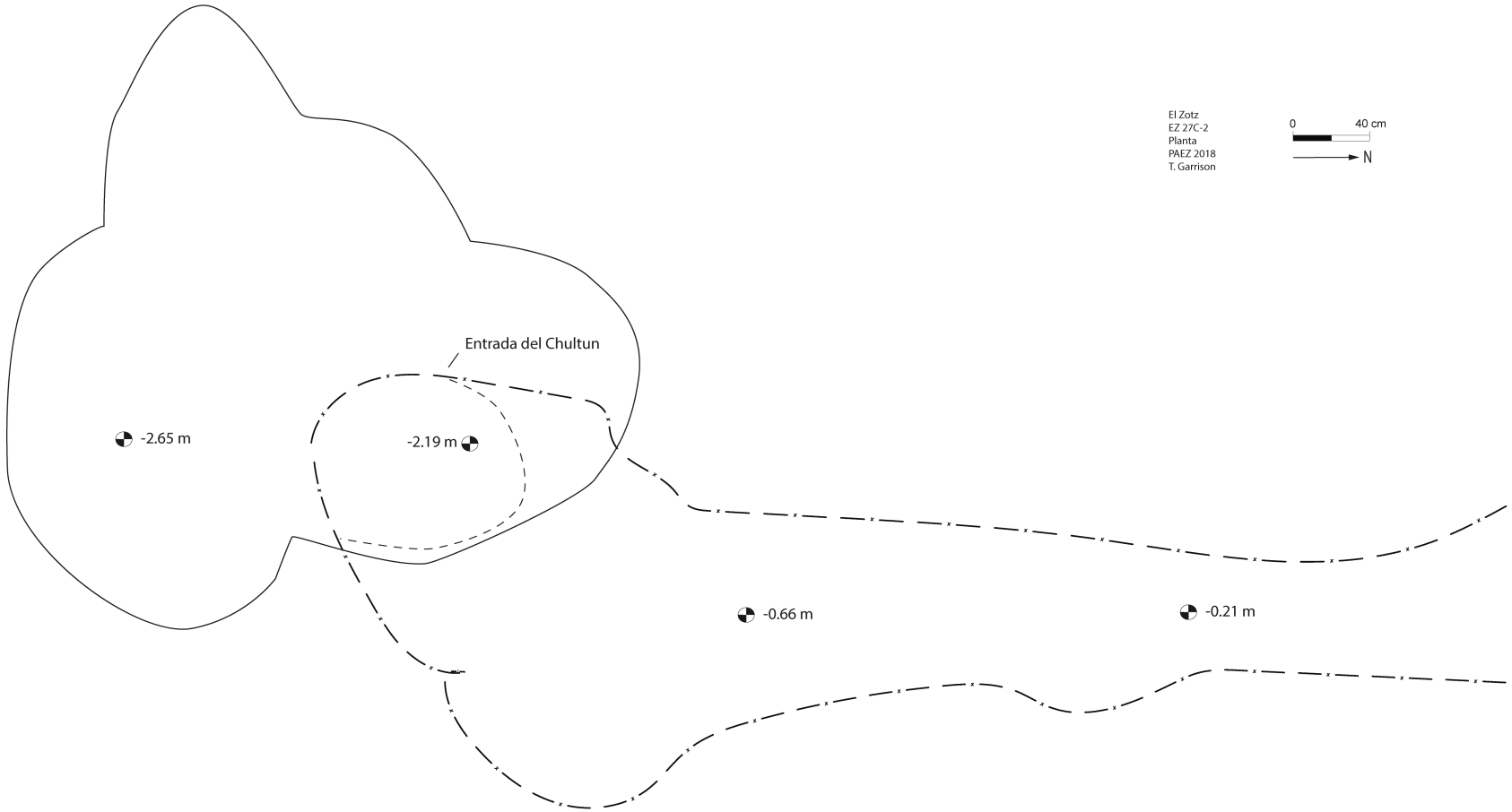
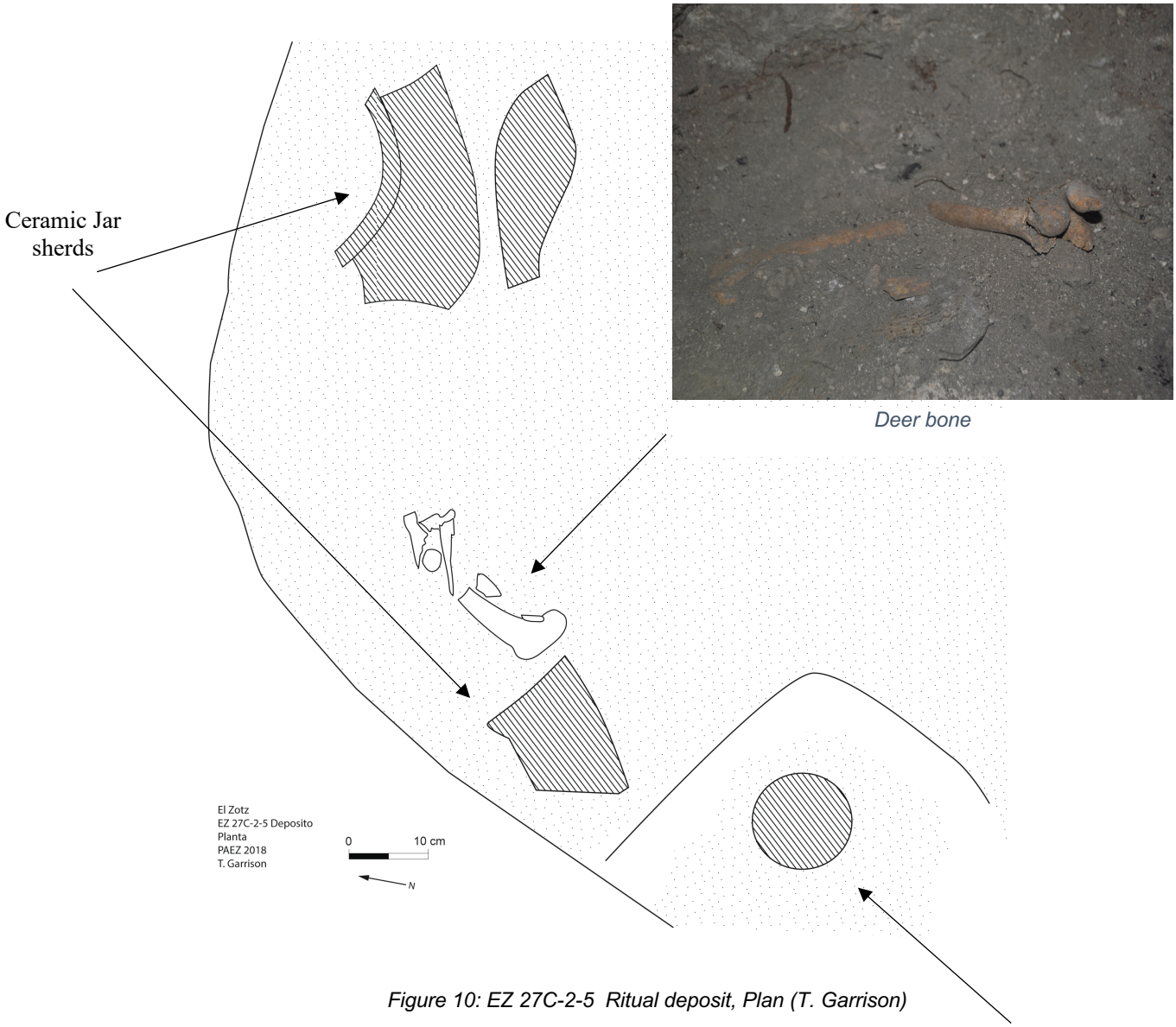


Figure 9: EZ 27C-2, Plan (T. Garrison and D. Baldwin)



Deer bone

Figure 10: EZ 27C-2-5 Ritual deposit, Plan (T. Garrison)



Cylinder vessel

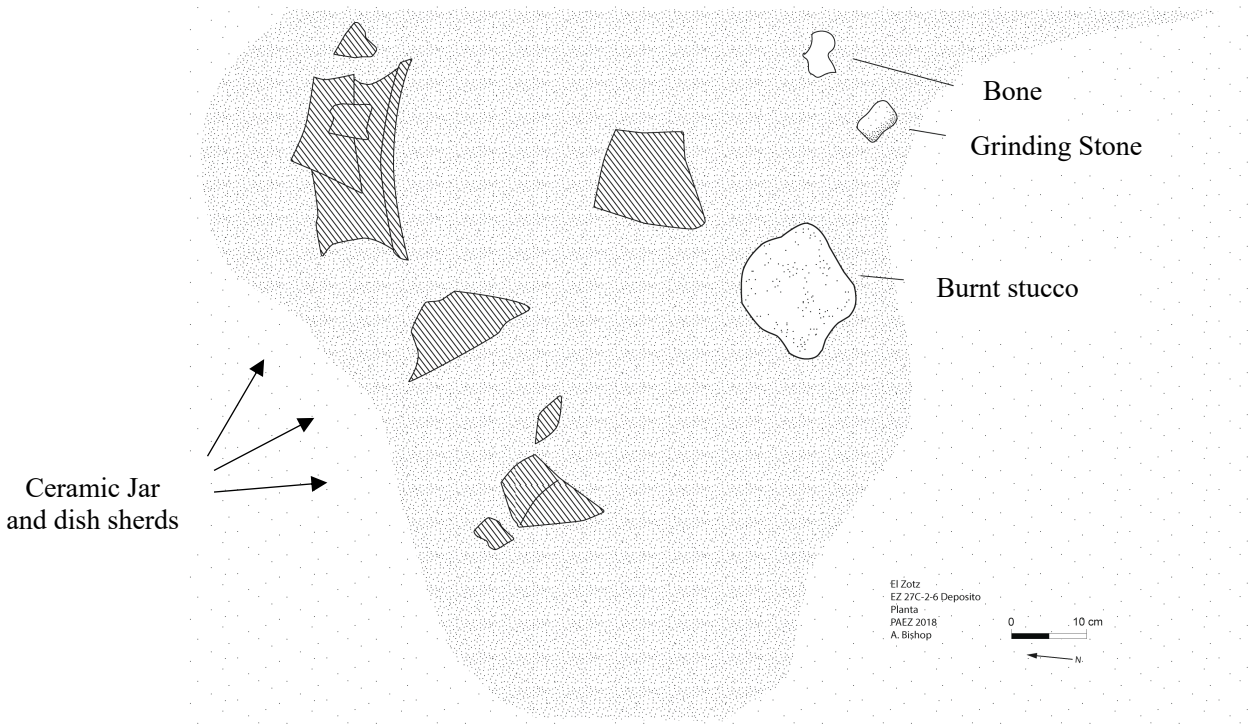


Figure 11: EZ 27C-2-6 Ritual Deposit, Plan (A. Bishop)



Figure 12: EZ 27C-2-6 Ritual Deposit (P. Rosales)

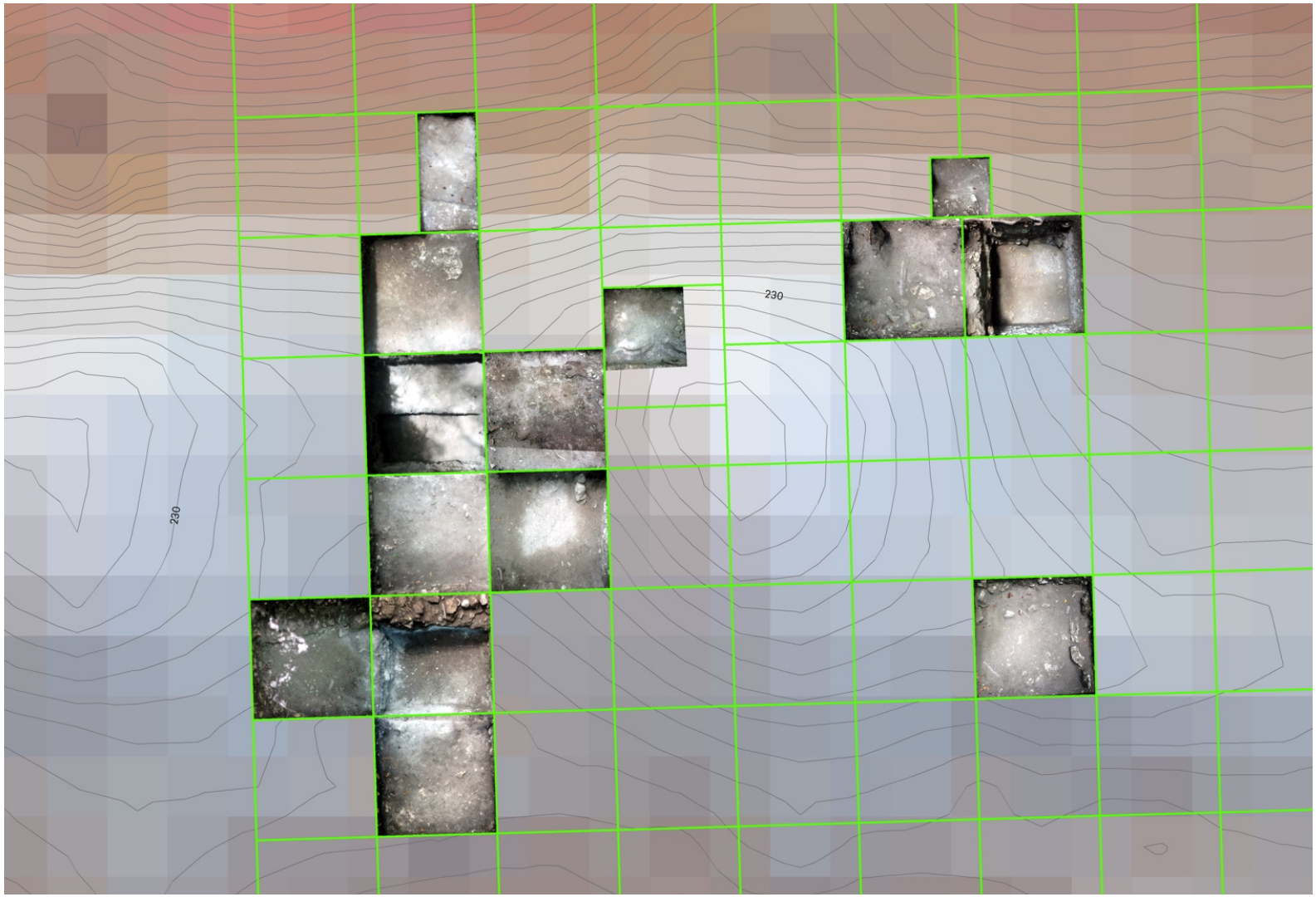
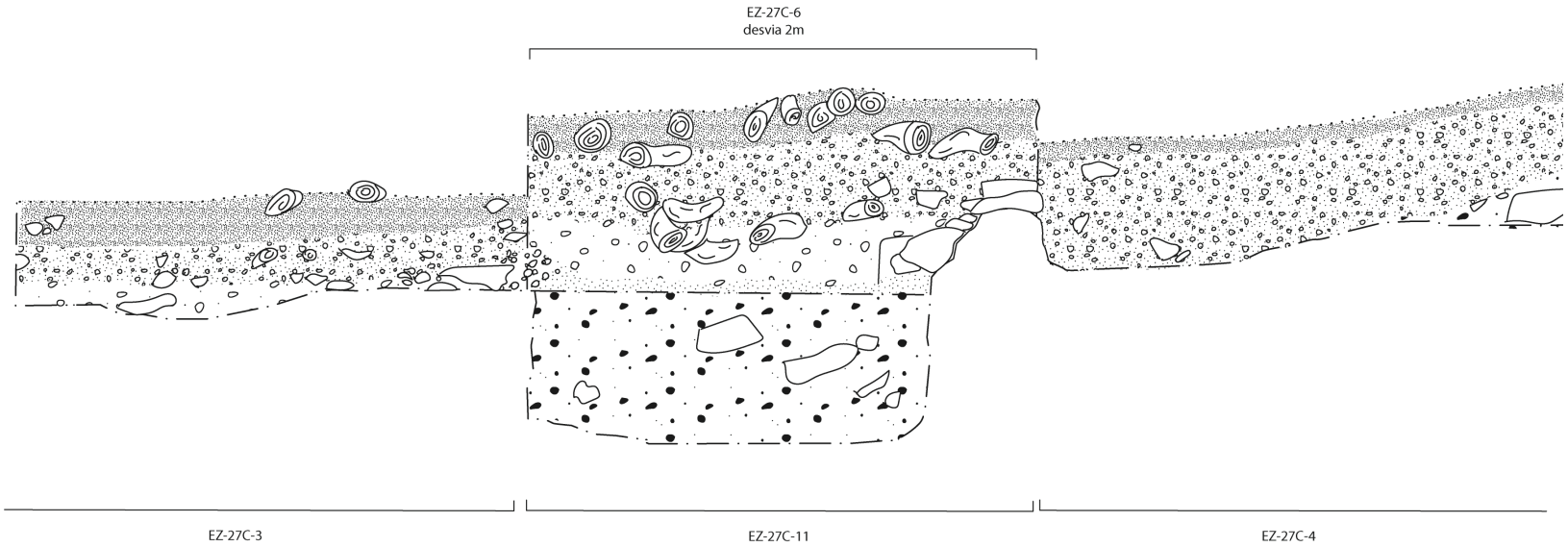


Figure 13: Excavations of T1-11 (T. Garrison, J. L. Garrido)



Figure 14: Plan of T1-11 Excavations (A. Bishop)



El Zotz
EZ 27C-3, 6, 11, 4, 10, 5, 14
Perfil Oeste
PAEZ 2019
A. Bishop

N

Figure 15: West profile of trench central in T1-11 (A. Bishop)

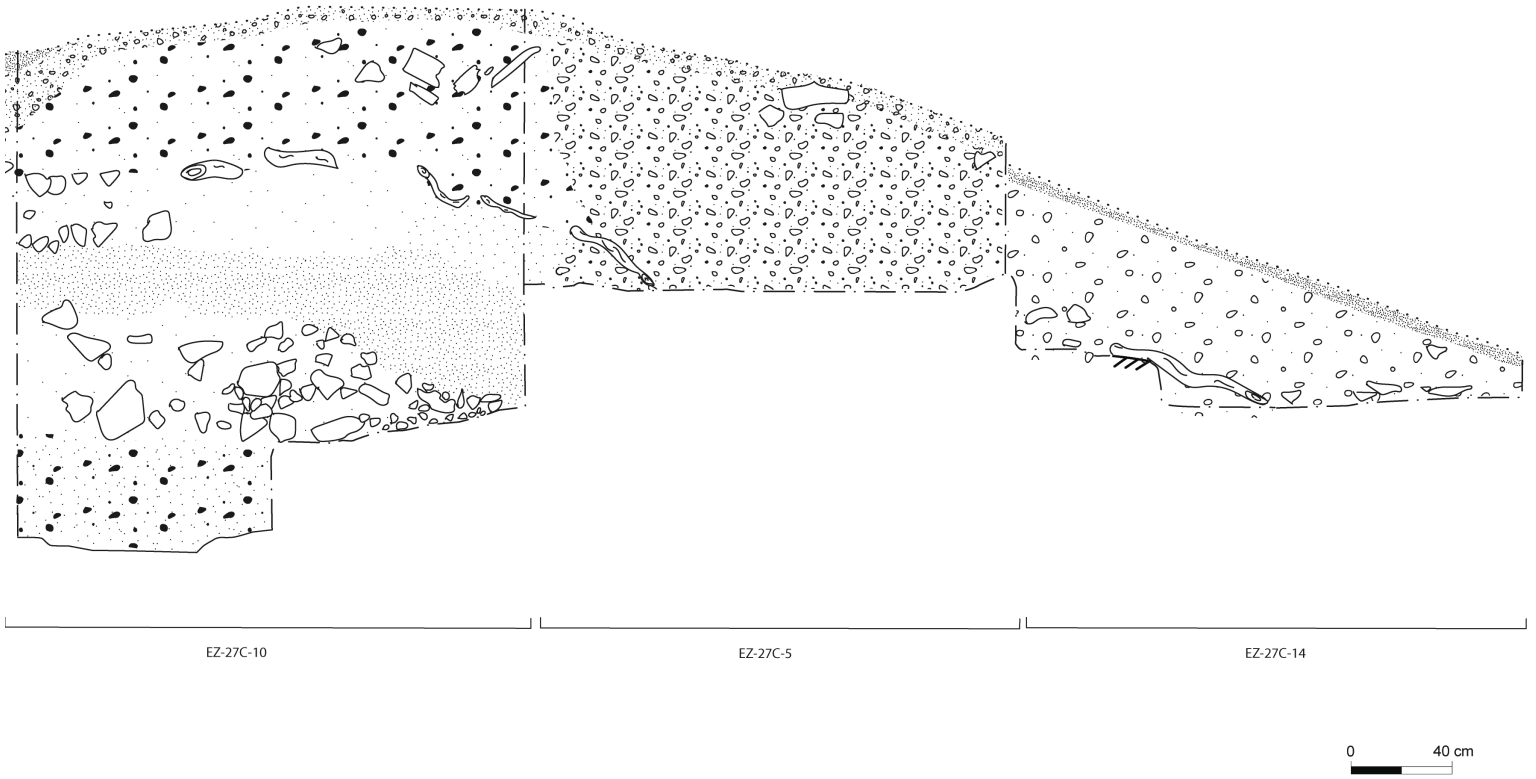


Figure 16: West profile of trench central in T1-11 (A. Bishop)

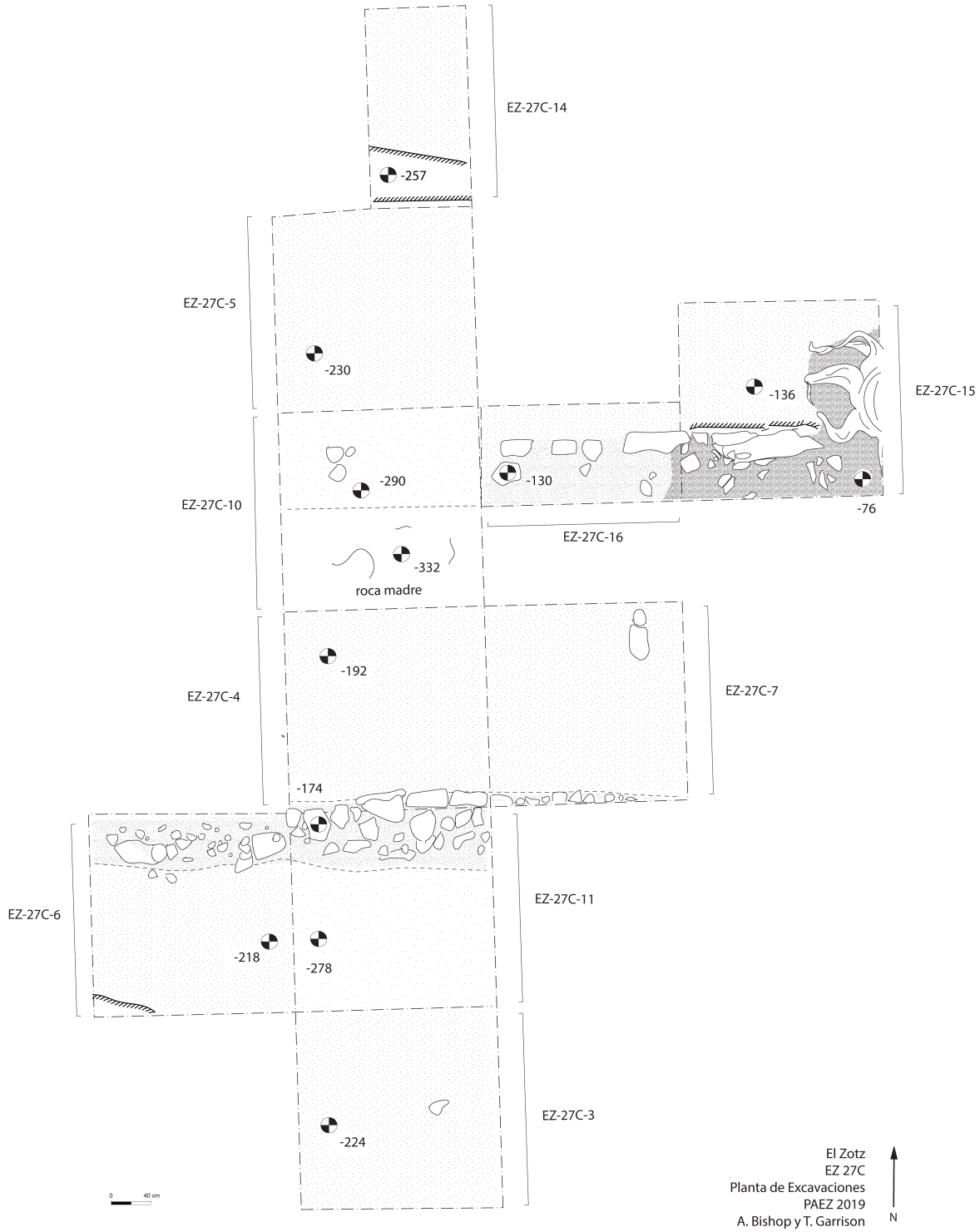


Figure 17: Plan of trench central in T1-11 (A. Bishop)



Figure 18: Wall in the South profile of EZ-27C-7 and 4 (A. Bishop)

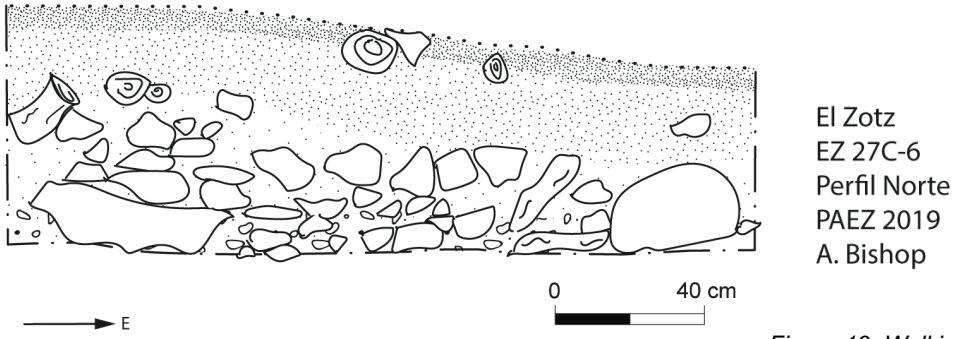


Figure 19: Wall in North profile of EZ-27C-6 (A. Bishop)

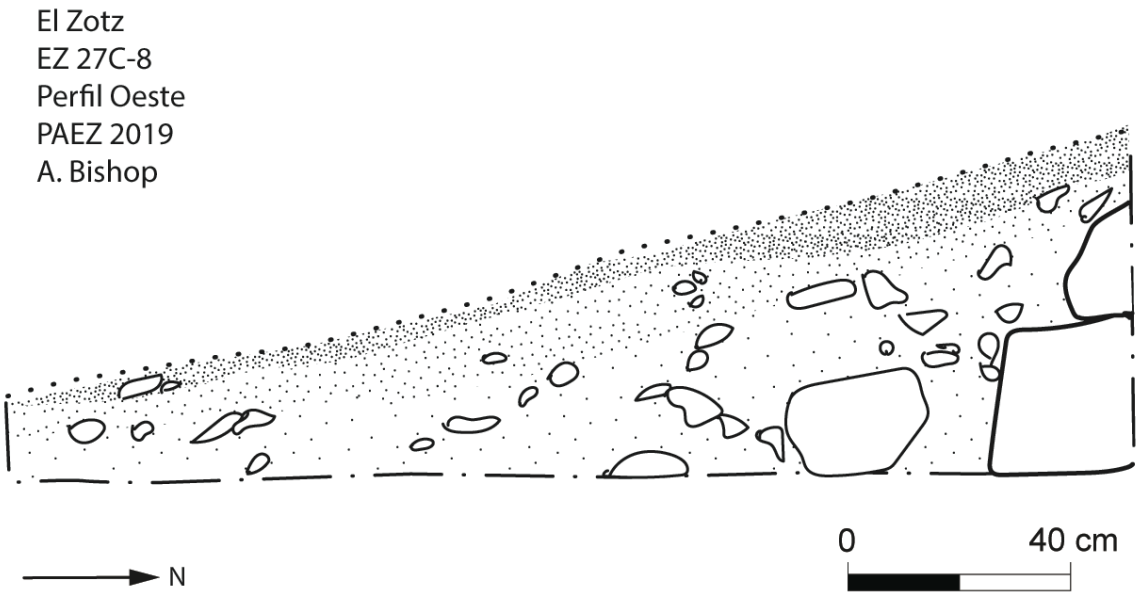


Figure 20: West profile of EZ-27C-8 (A. Bishop)

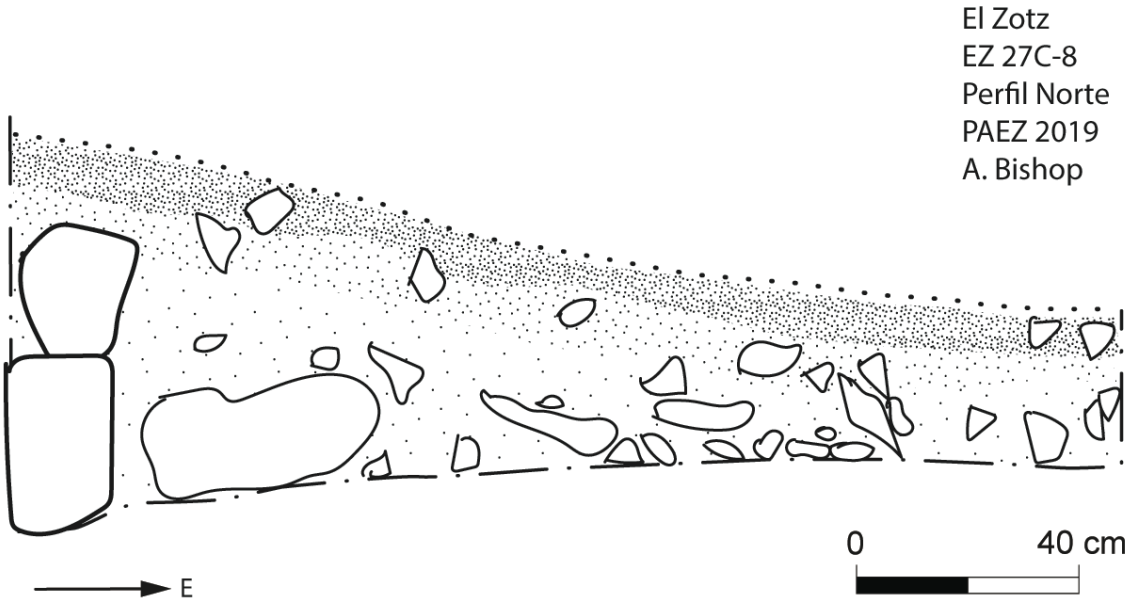


Figure 21: North profile of EZ-27C-8 (A. Bishop)

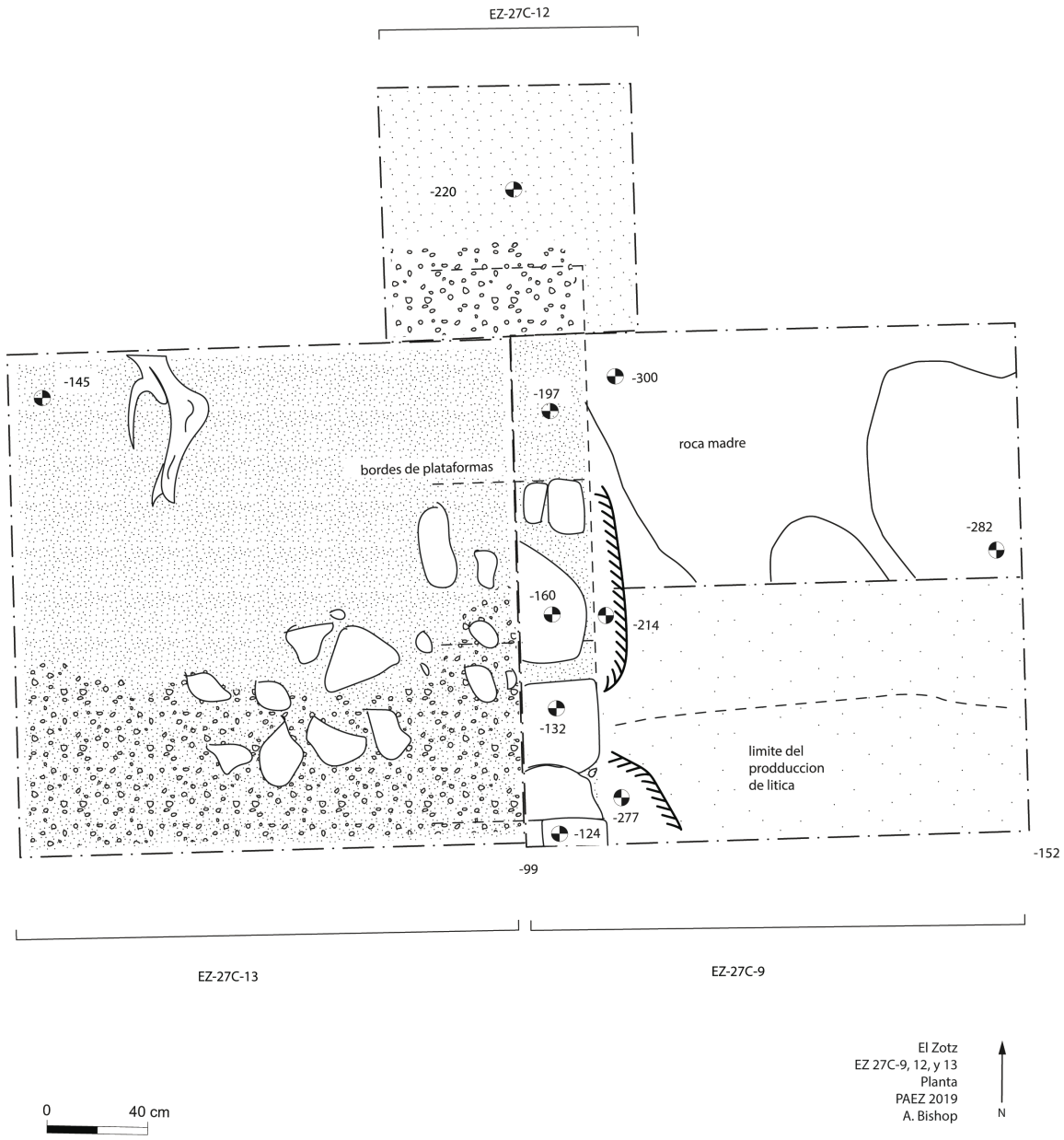


Figure 22: Plan of EZ-27C-9, 12, and 13 (T. Garrison and A. BIshop)

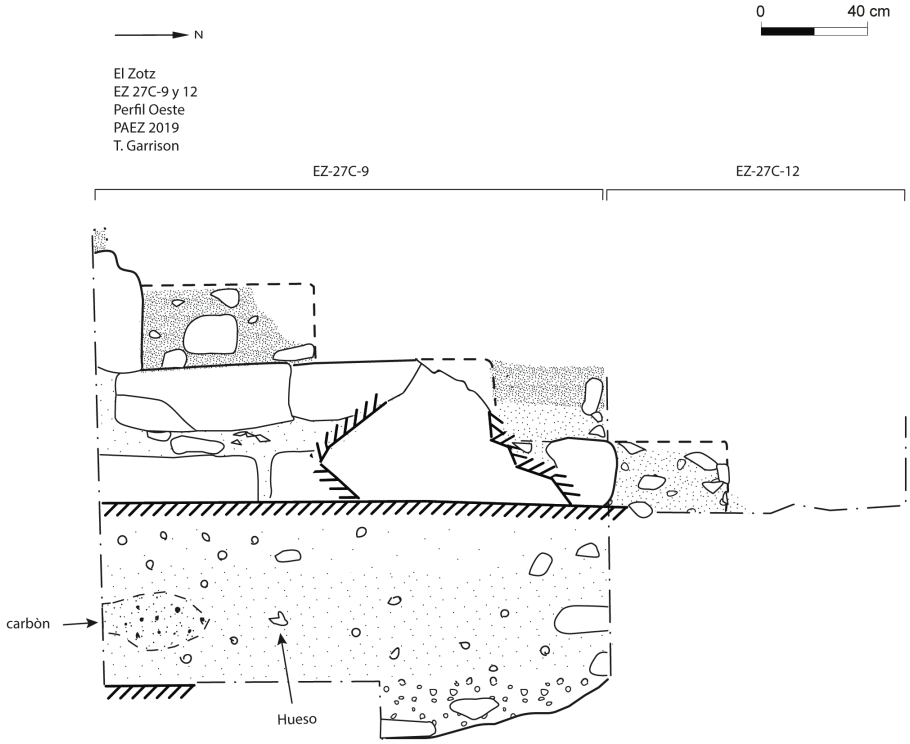


Figure 23: West profile of EZ-27C-9 and 12 (T. Garrison)

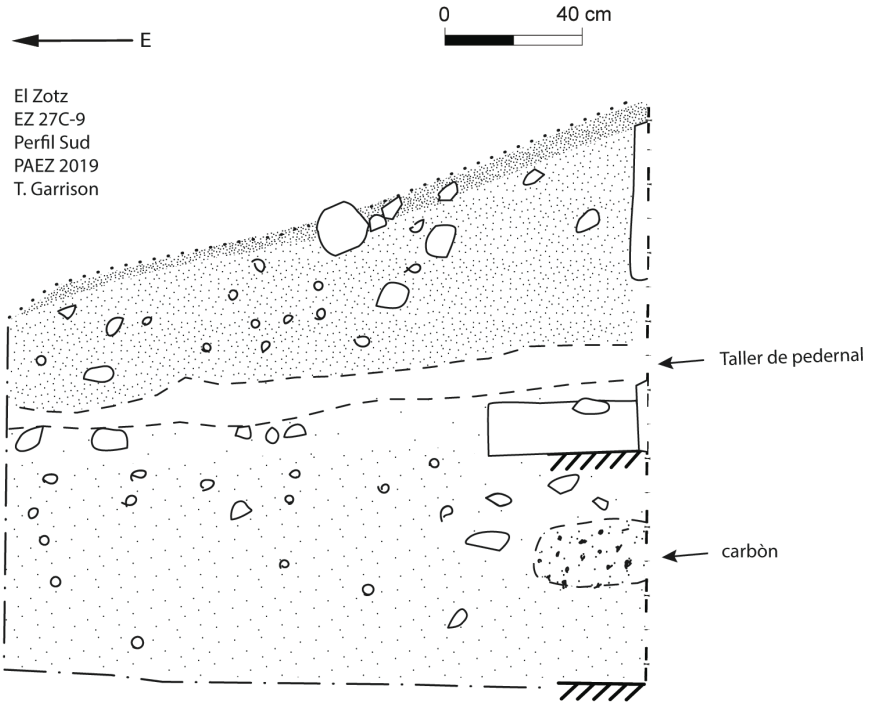


Figure 24: South profile of EZ-27C-9 (T. Garrison)

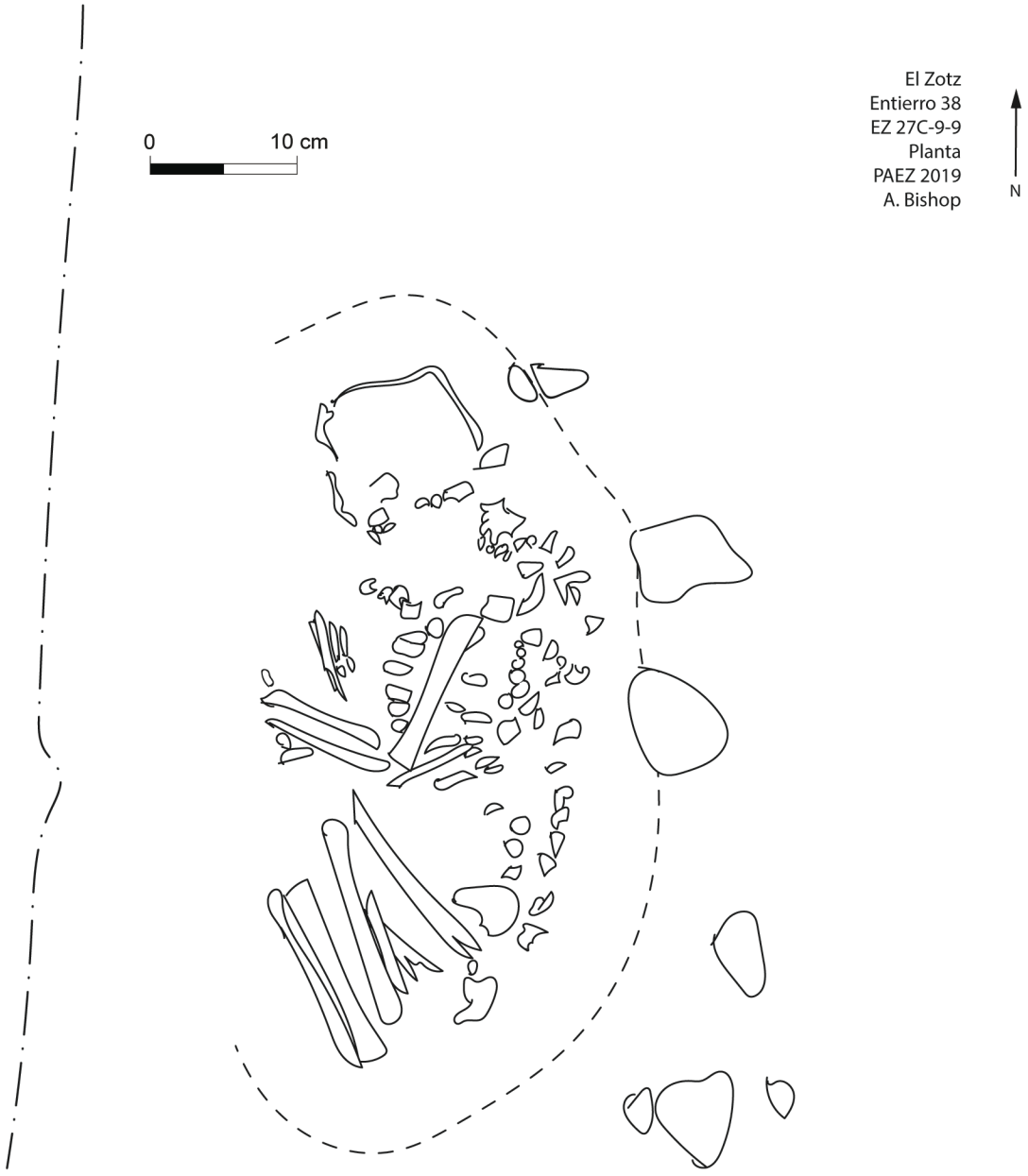


Figure 25: Entierro 38, EZ-27C-9-9 (A. Bishop and E. Román)

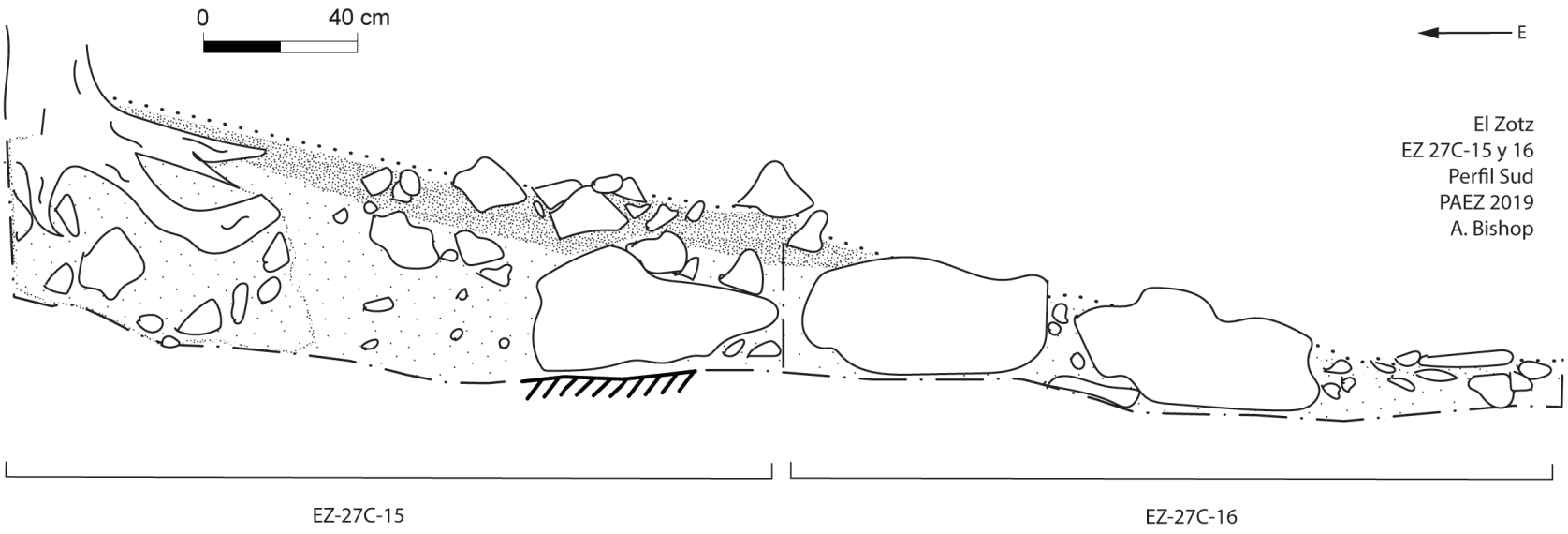


Figure 26: Wall in the South profile of EZ-27C-15 and 16 (A. Bishop)

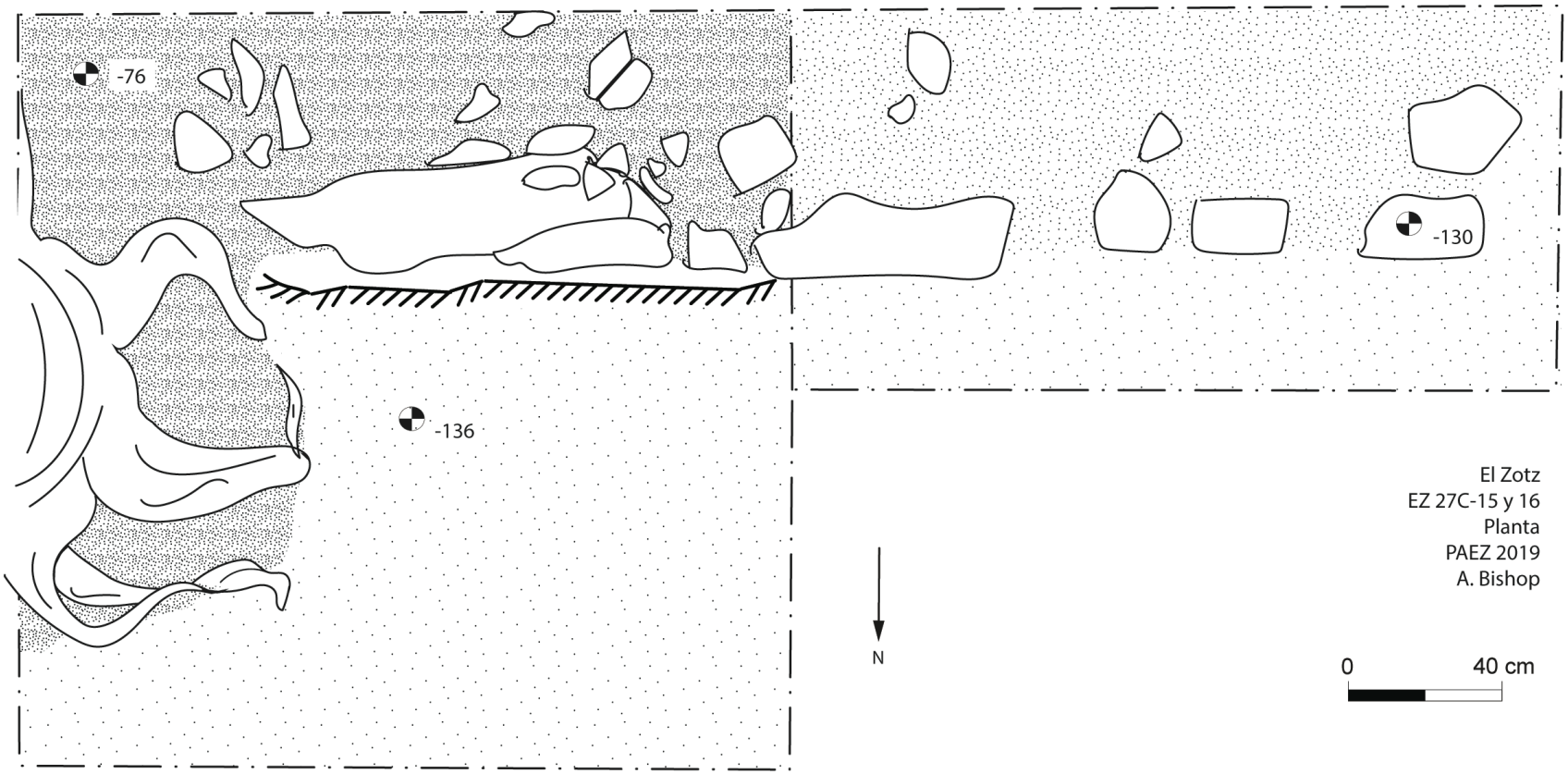


Figure 27: Plan of EZ-27C-15 and 16 (A. Bishop)



Figure 25: EZ 27D-1, 4, and 6, East Profile (A. Bishop)

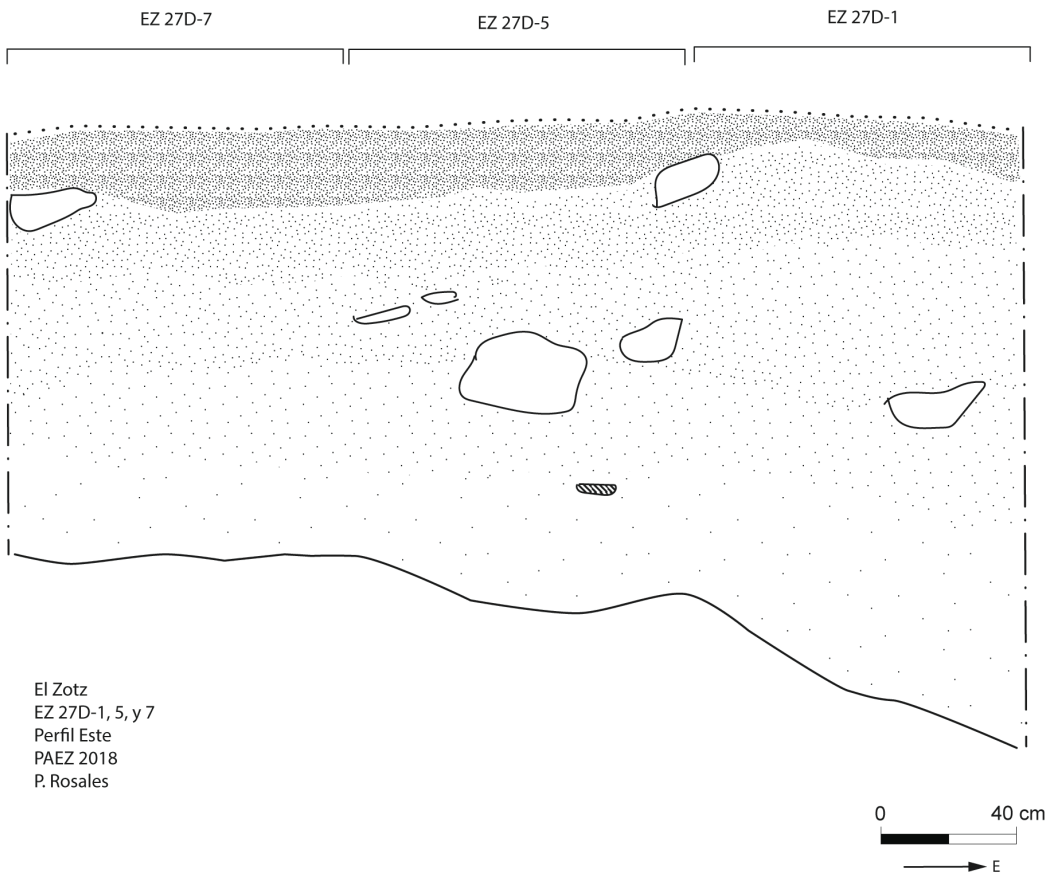


Figure 26: EZ 27D-1, 5, and 7, North profile (P. Rosales)

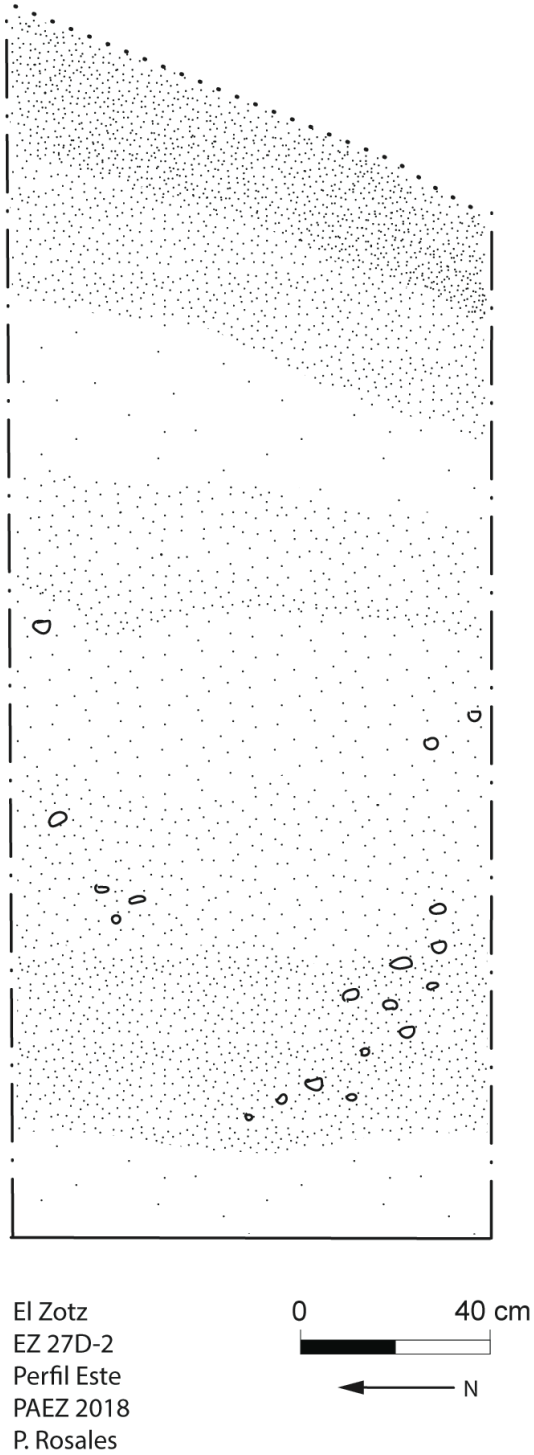


Figure 27: EZ 27D-2, East profile (P. Rosales)

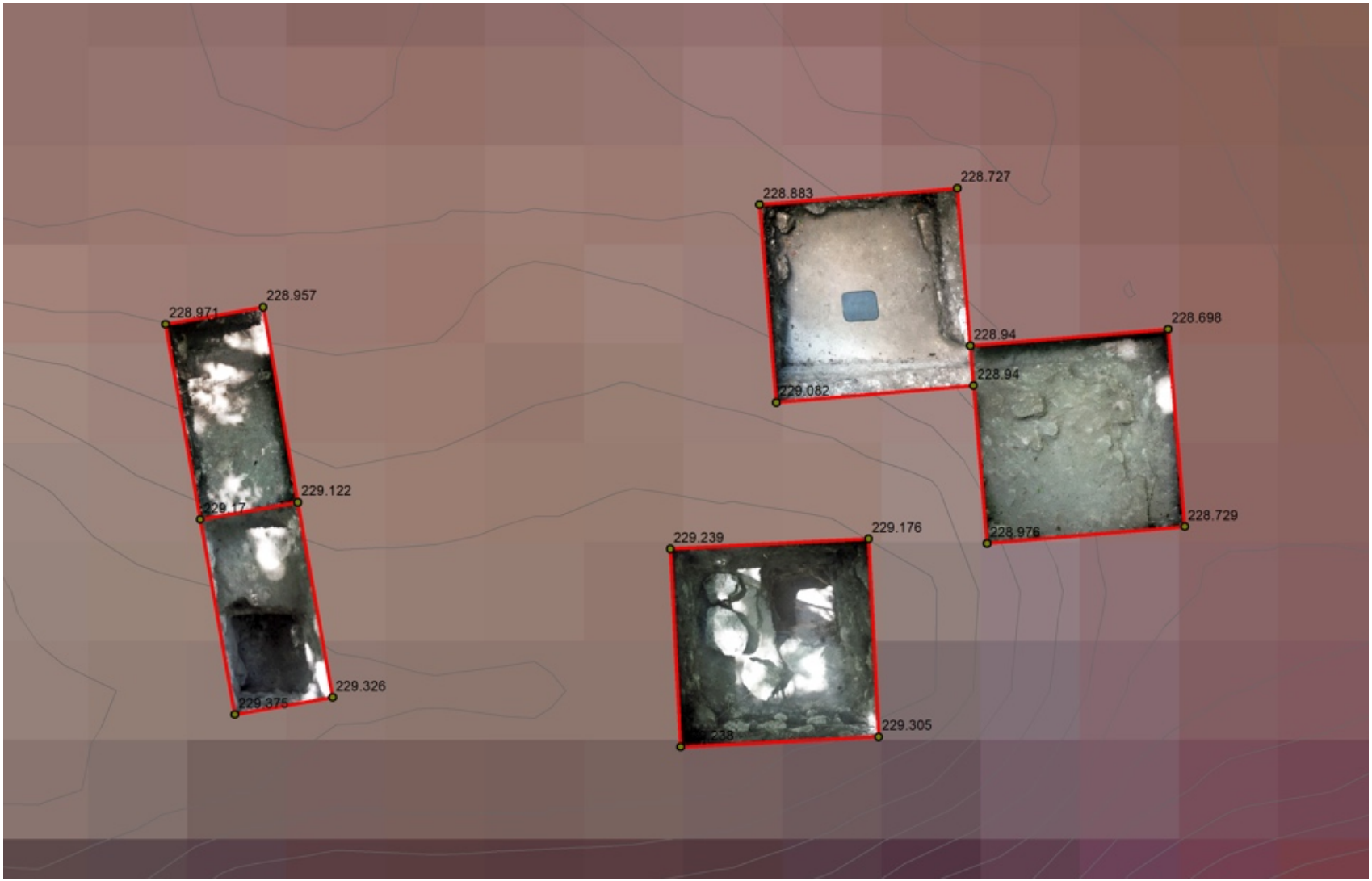


Figure 28: Excavations of T1-3 (T. Garrison and J. L. Garrido)

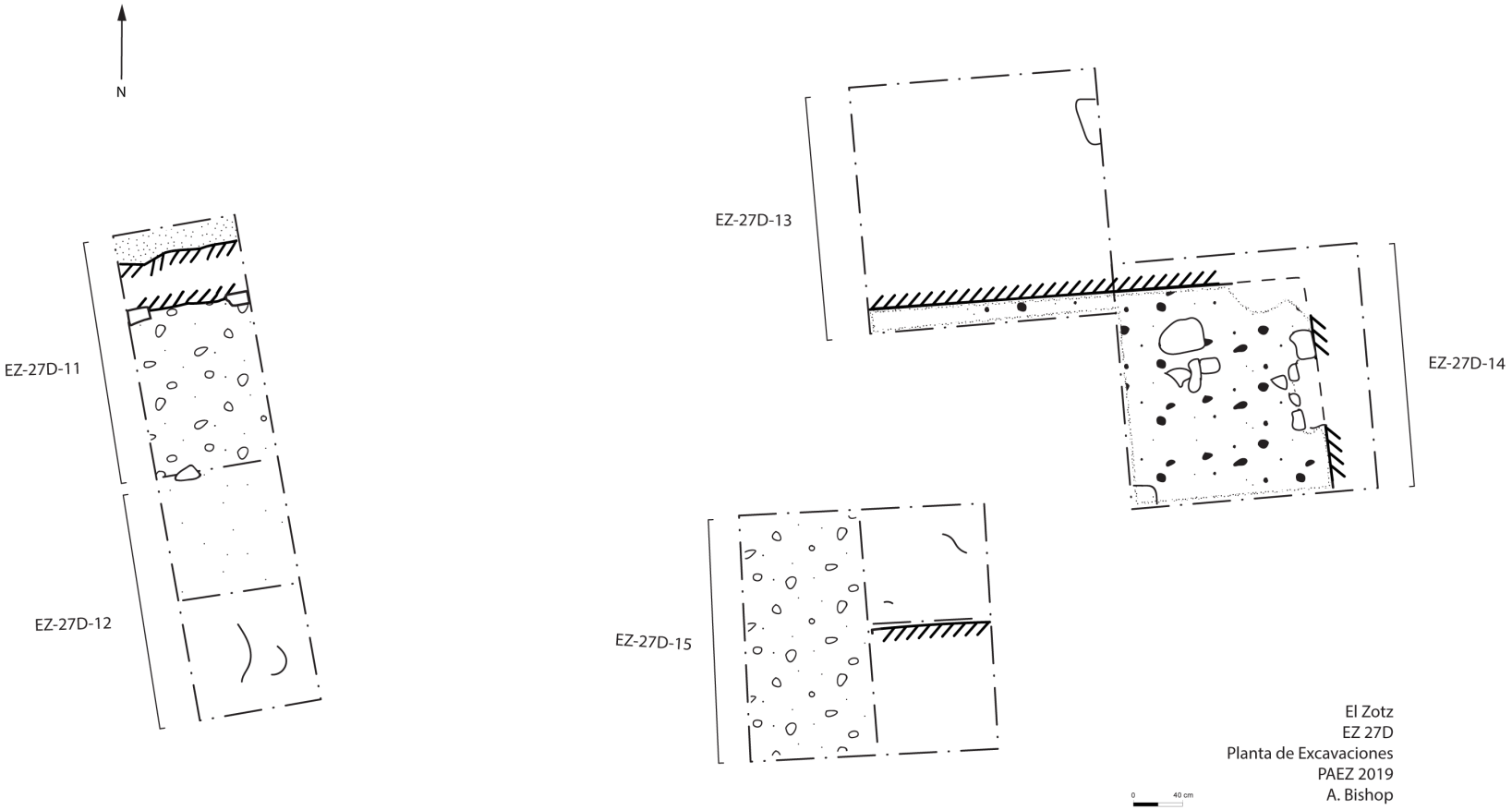


Figure 29: Plan of T1-3 Excavations (A. Bishop)

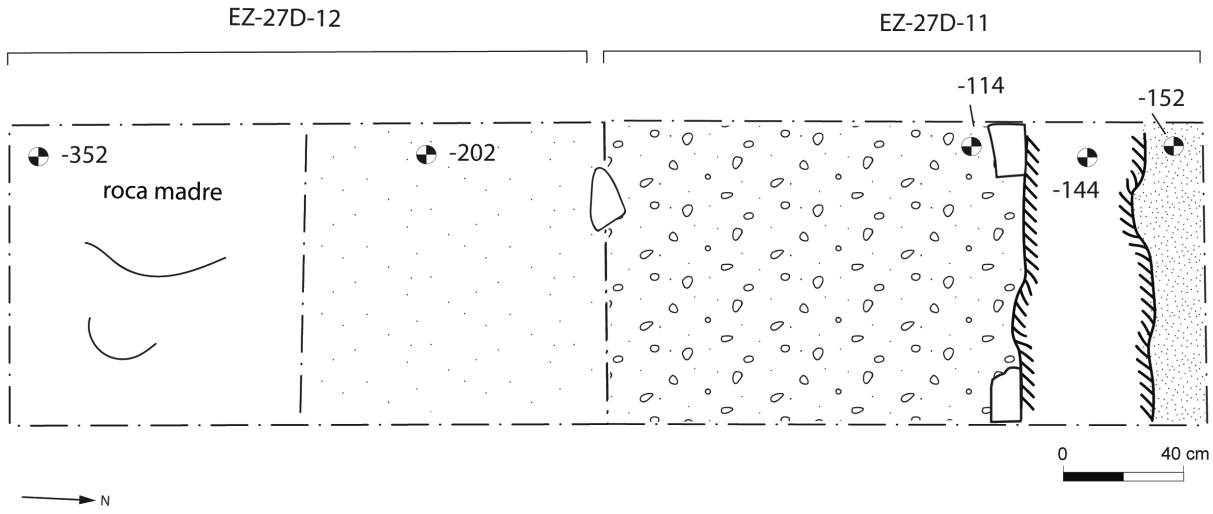


Figure 30: Plan of Trench in T1-3 (A. Bishop)

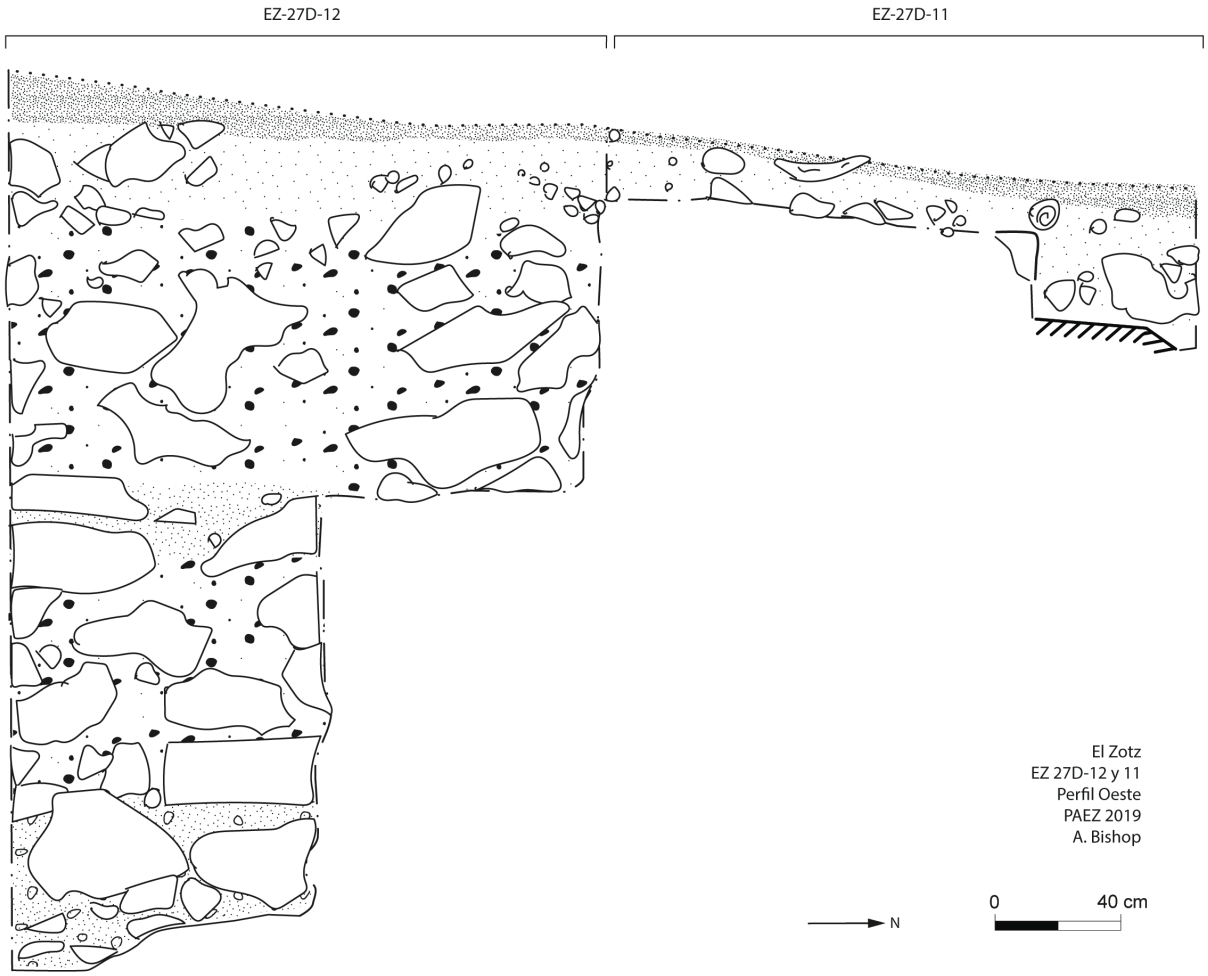


Figure 31: West profile of Trench in T1-3 (A. Bishop)

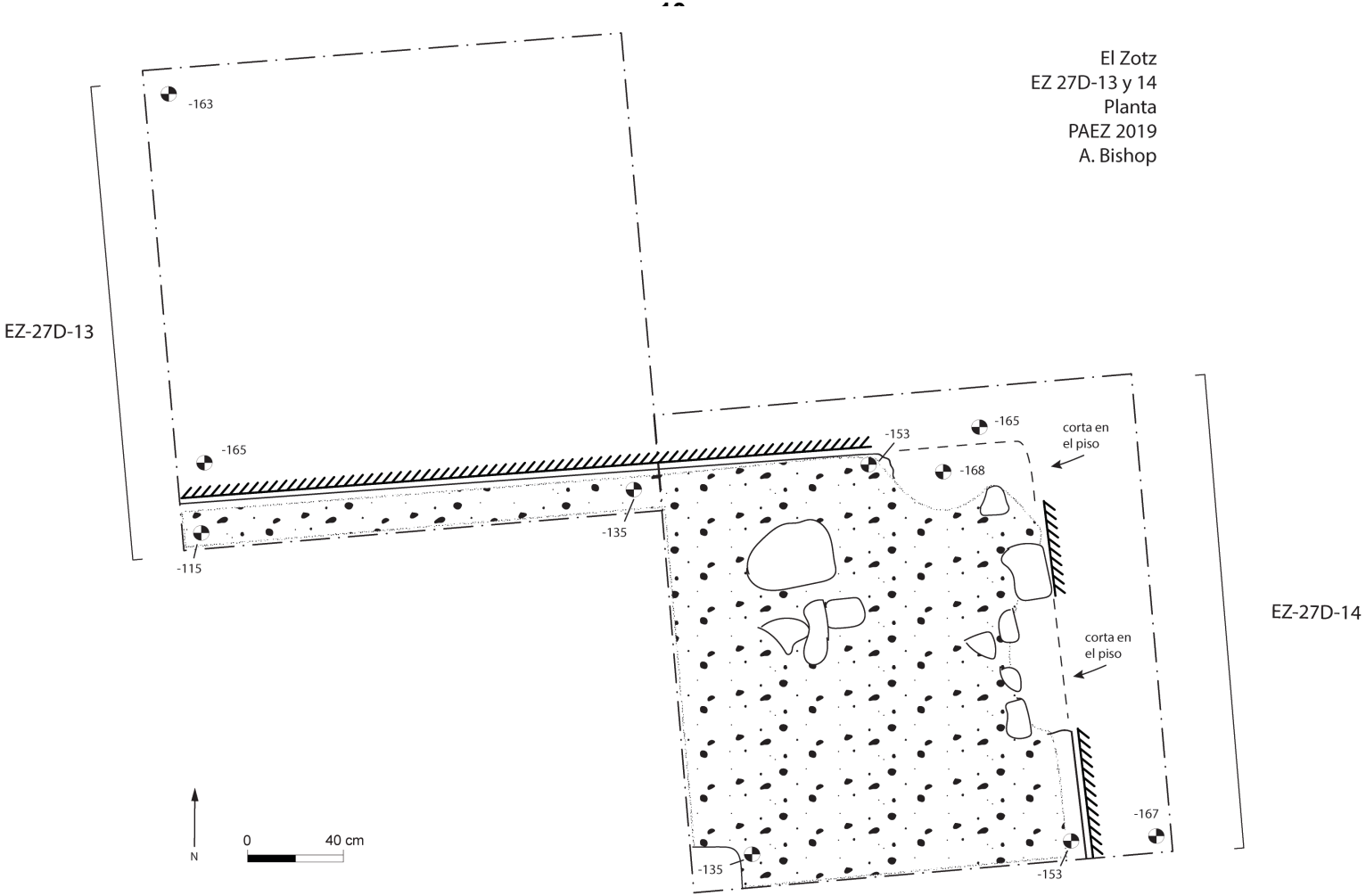


Figure 32: Plan of EZ-27D-13 and 14 (A. Bishop)

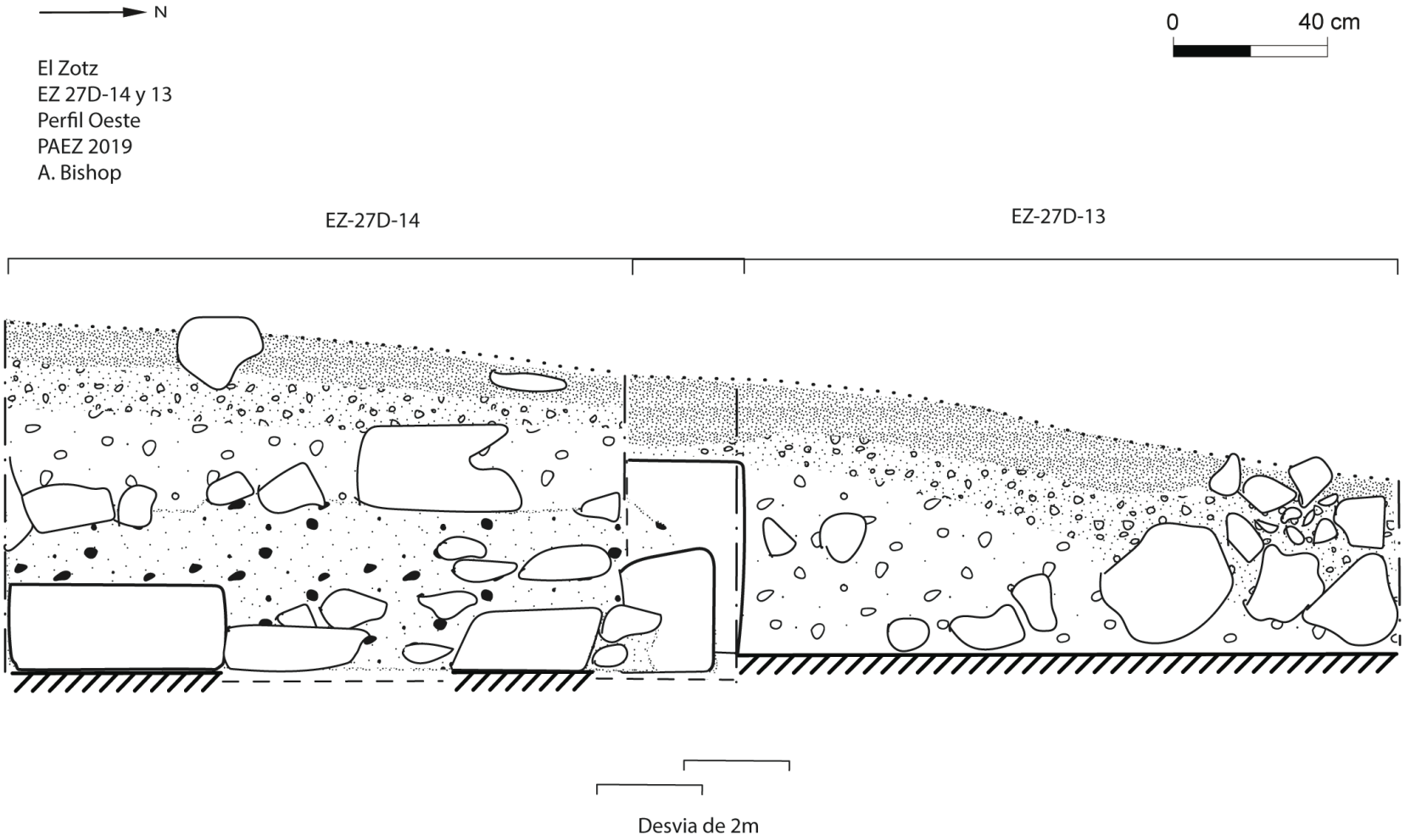


Figure 33: West profile and esquina in EZ-27D-13 and 14 (A. Bishop)

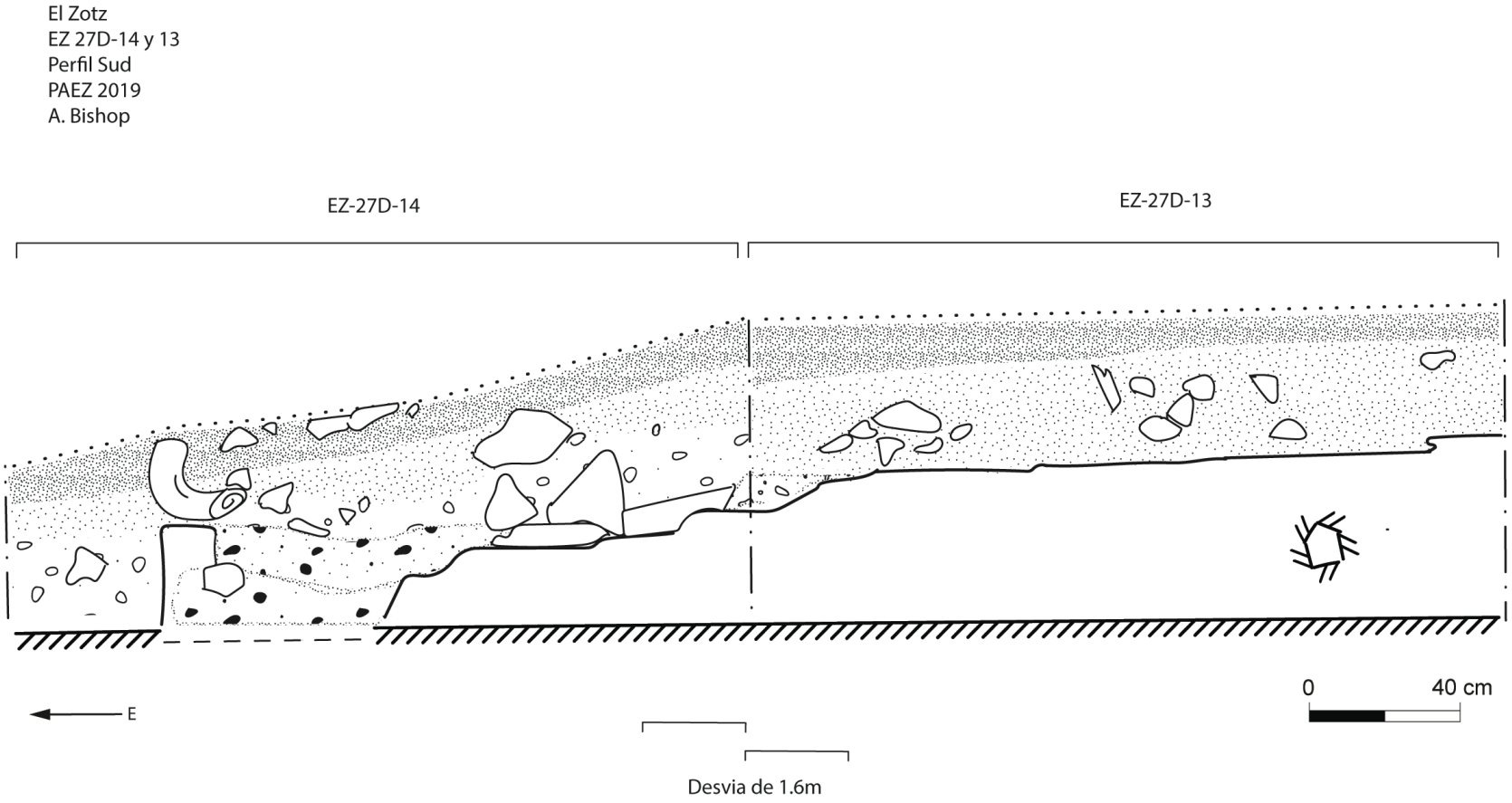


Figure 34: South profile and esquina in EZ-27D-13 and 14 (A. Bishop)

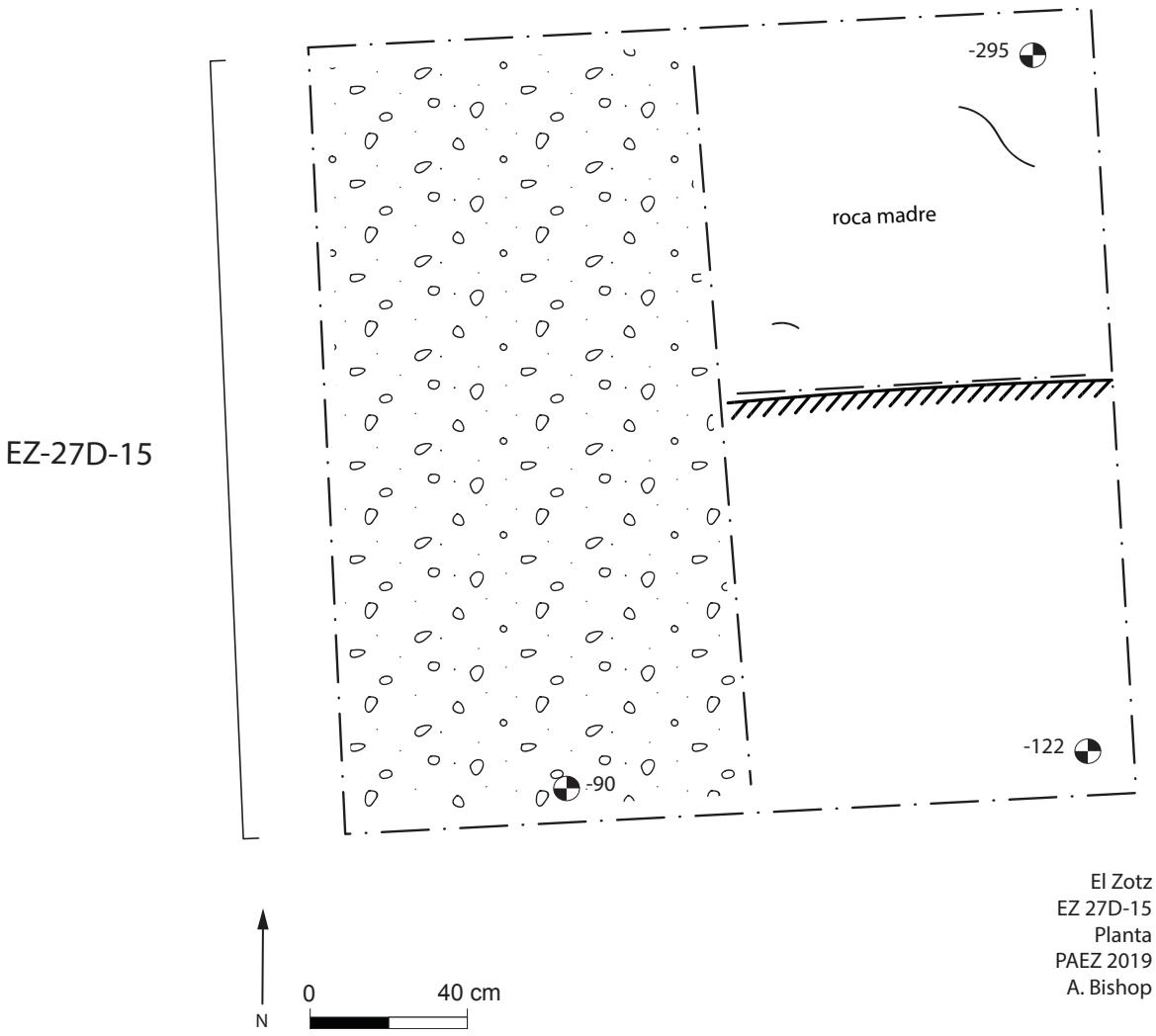


Figure 35: Plan of EZ-27D-15 (A. Bishop)

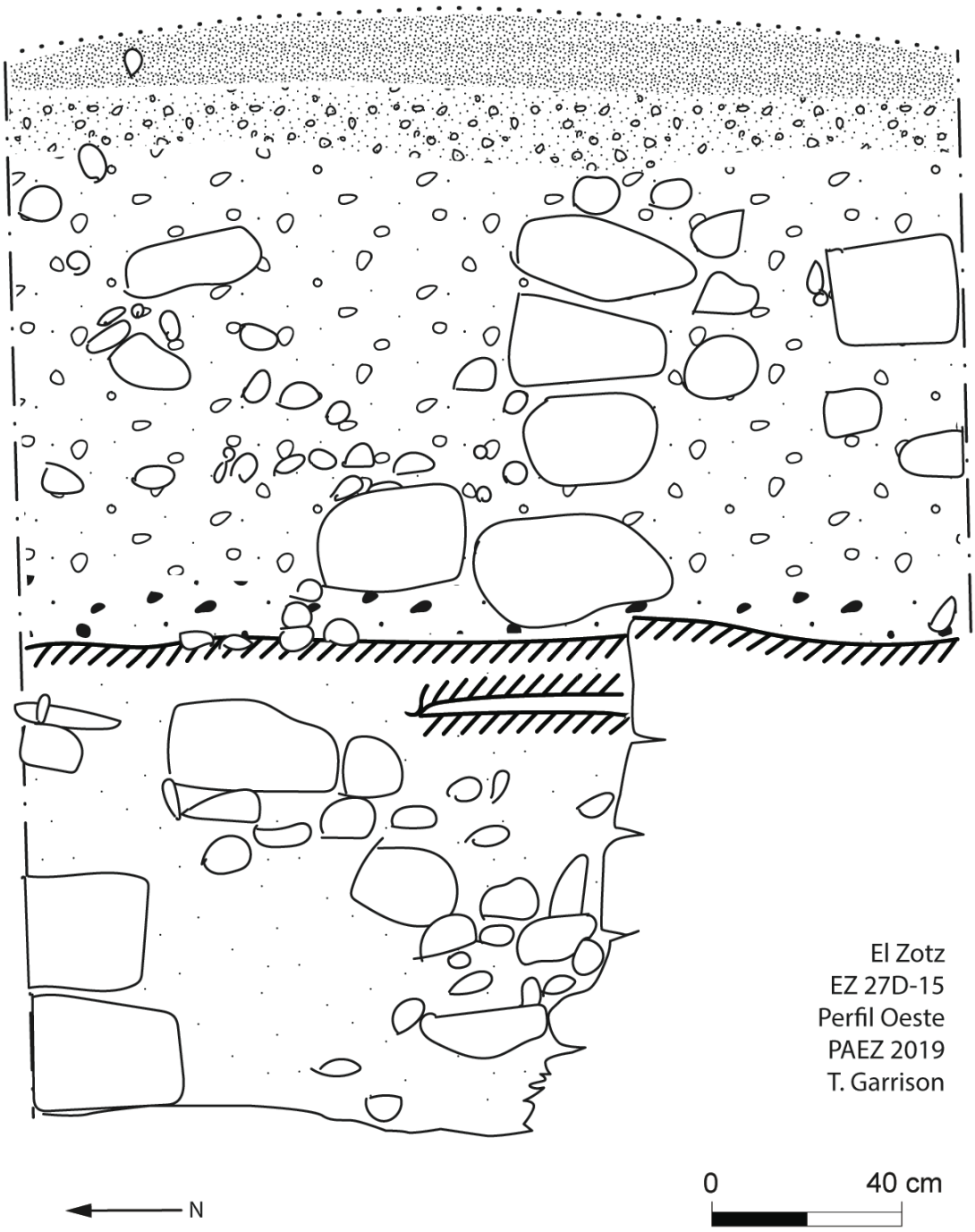


Figure 36: East profile of EZ-27D-15 (A. Bishop)

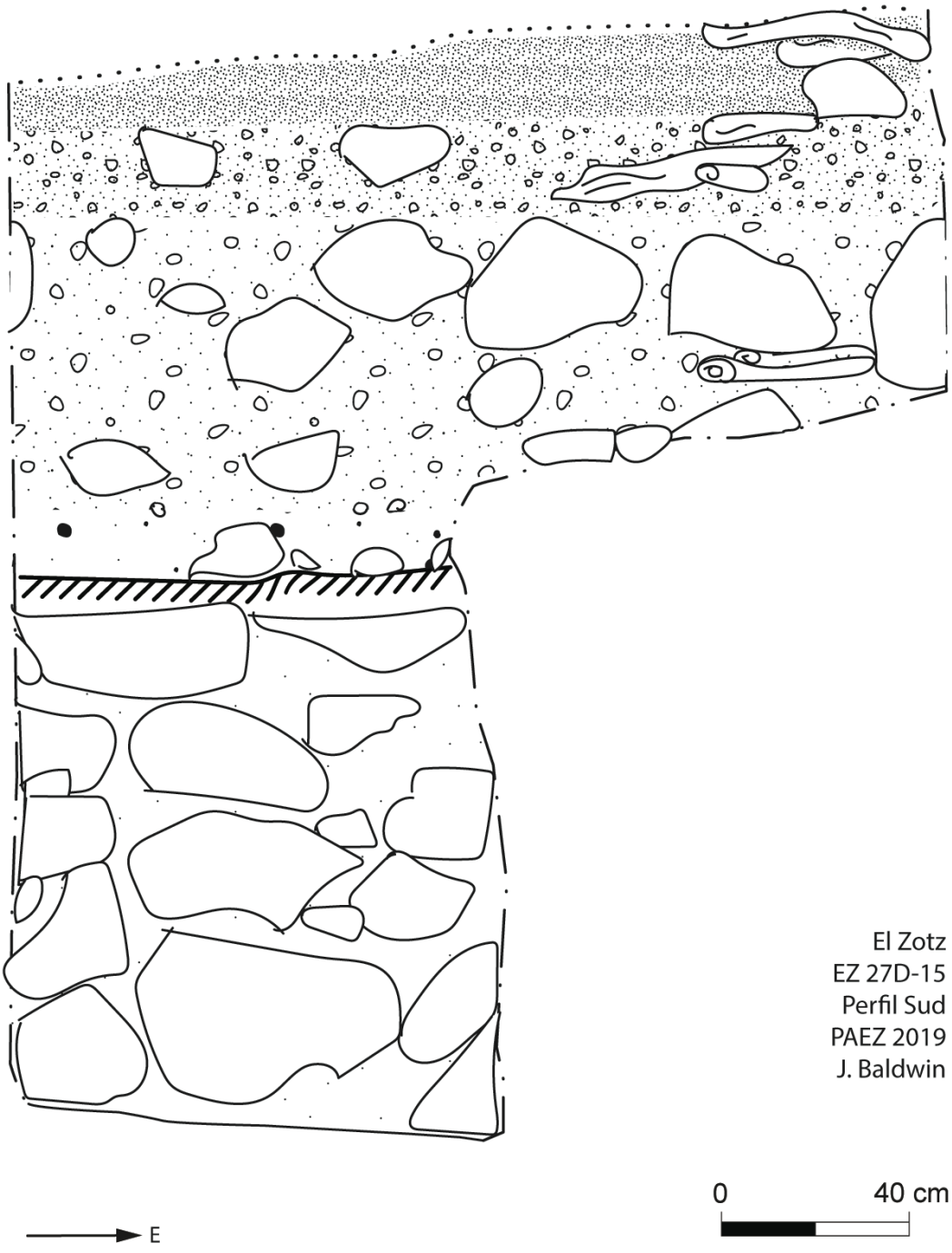


Figure 37: South profile of EZ-27D-15 (A. Bishop)

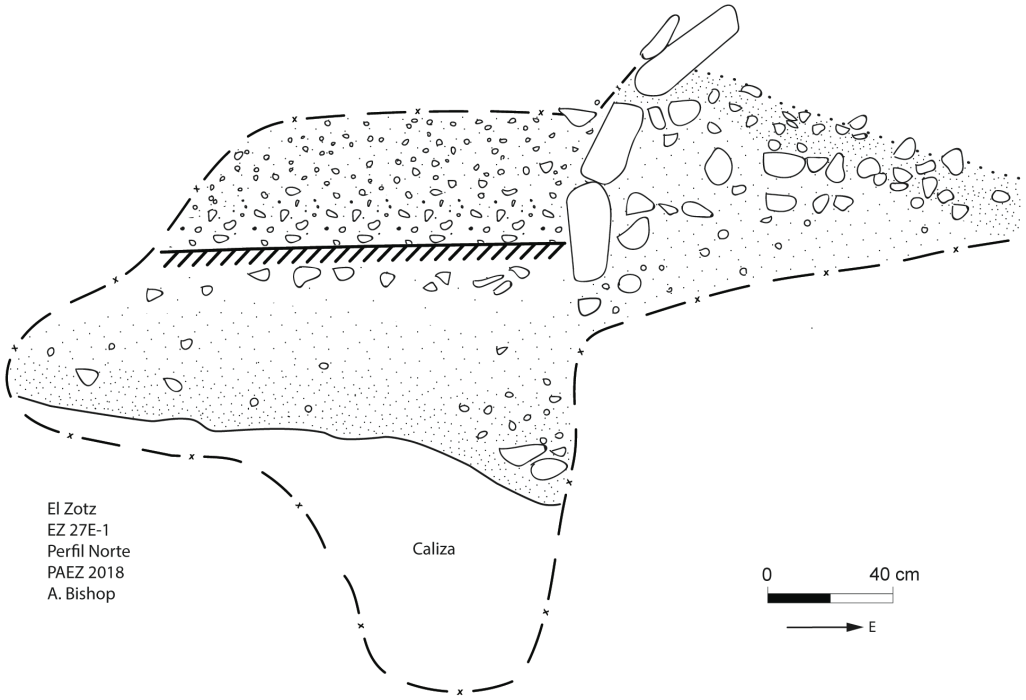


Figure 38: EZ 27E-1, North Profile (A. Bishop)

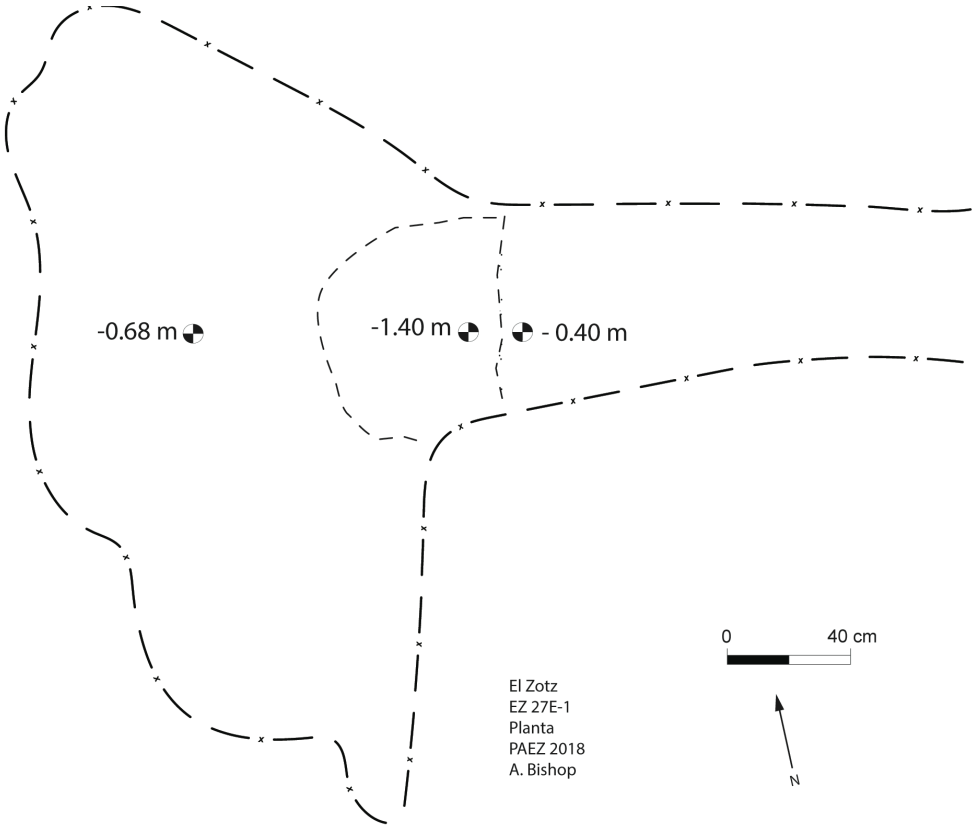


Figure 39: EZ 27E-1, Plan (A. Bishop)

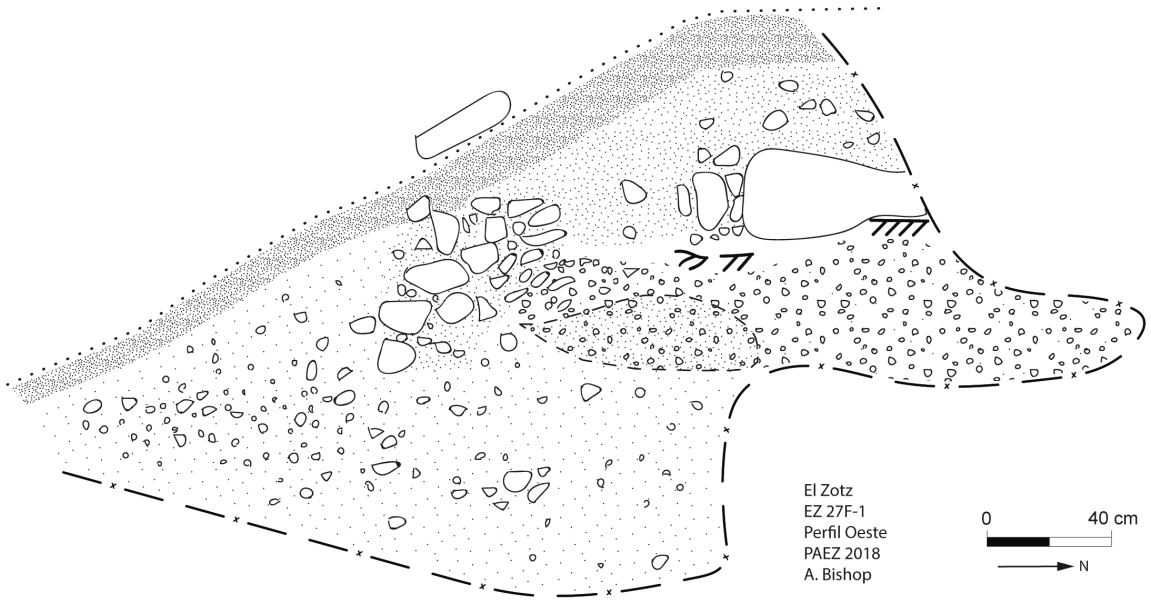


Figure 40: EZ 27F-1, West Profile (A. Bishop)

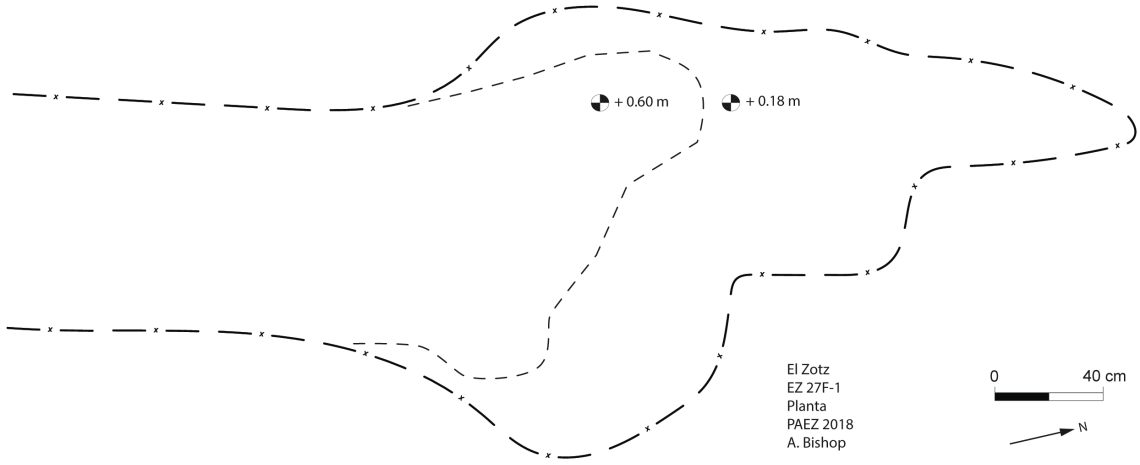


Figure 41: EZ 27F-1, Plan (A. Bishop)

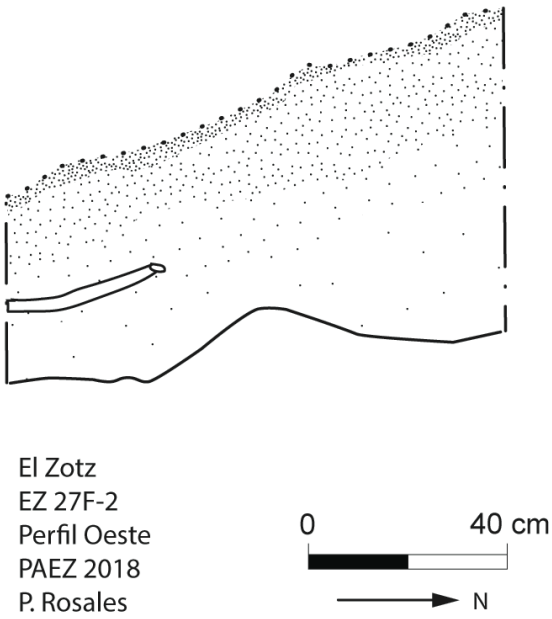


Figure 42: EZ 27F-2, West Profile (P. Rosales)

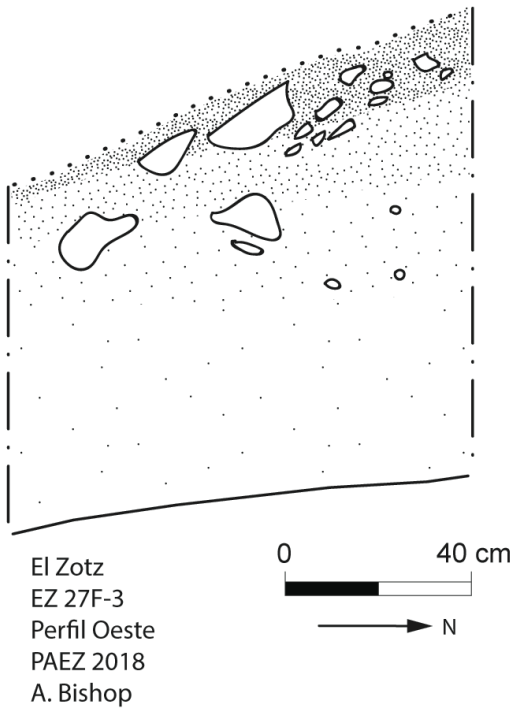


Figure 43: EZ 27F-3, West Profile (A. Bishop)

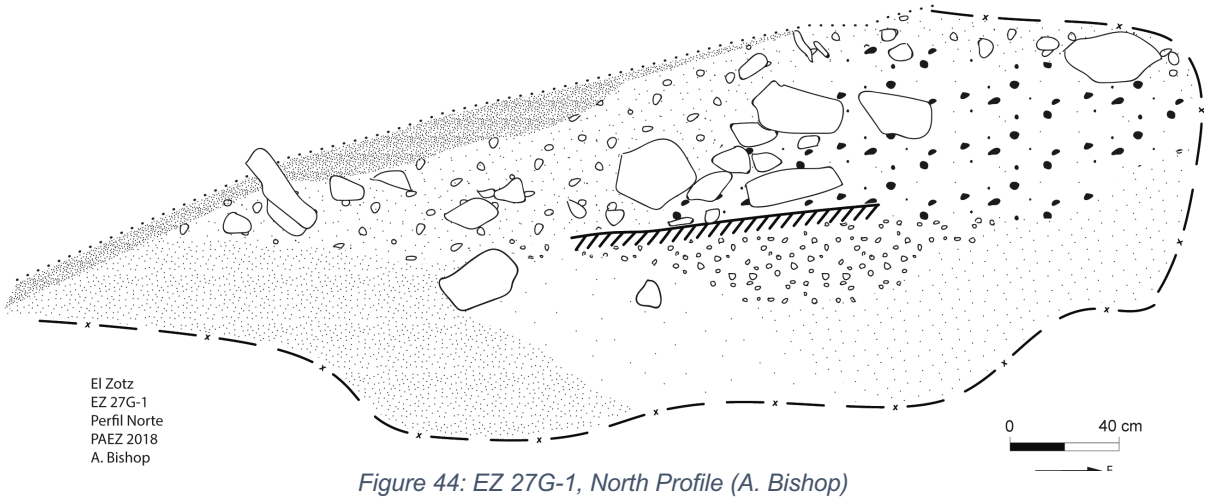


Figure 44: EZ 27G-1, North Profile (A. Bishop)

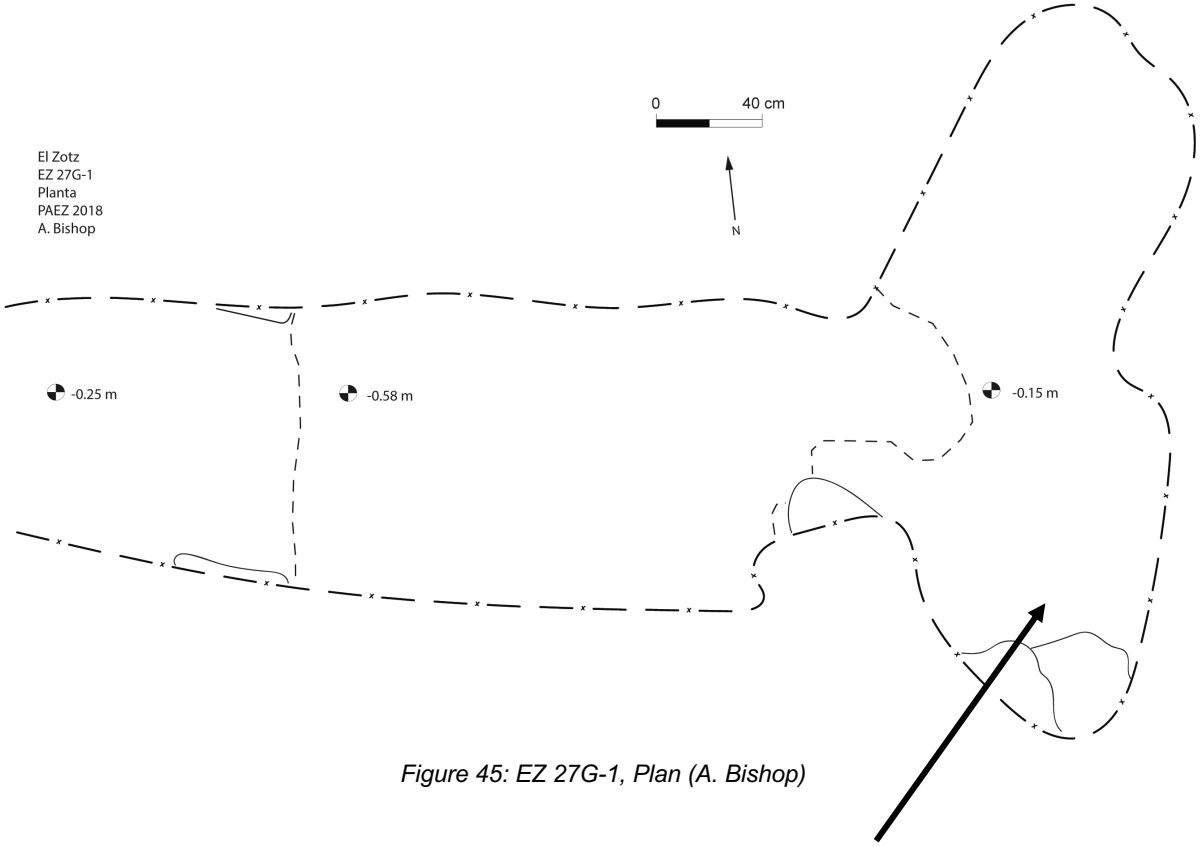


Figure 45: EZ 27G-1, Plan (A. Bishop)



Figure 46: EZ 27G-1-2, Burial 39 (A. Bishop)

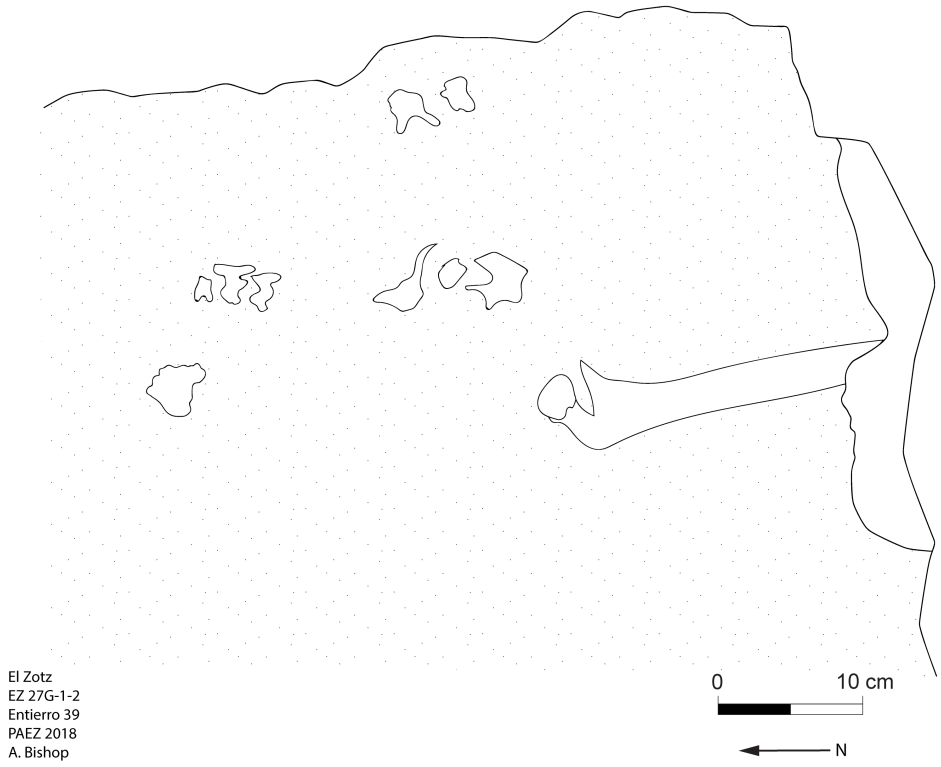


Figure 47: EZ 27G-1-2, Burial 39, Plan (A. Bishop)

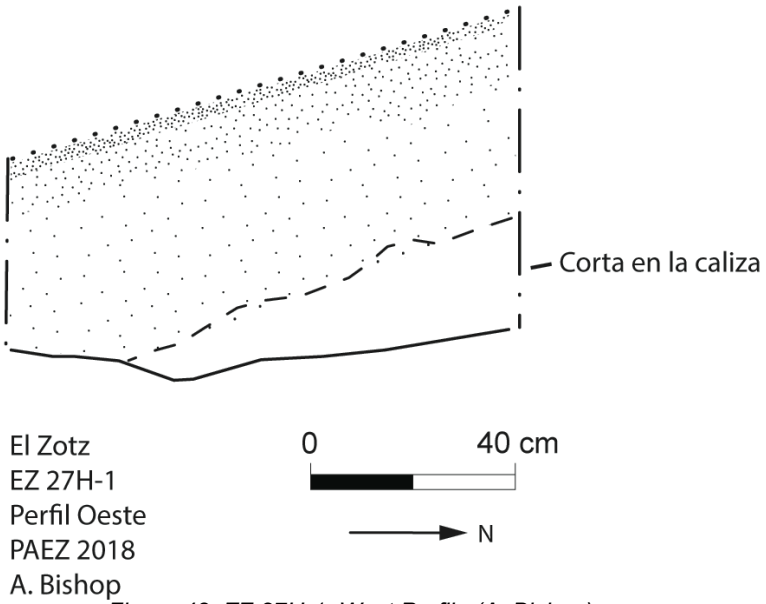


Figure 48: EZ 27H-1, West Profile (A. Bishop)

APPENDIX C: RADIOCARBON DATING REPORTS

Table C-1: Radiocarbon dates from sealed contexts at all complexes. Date ranges are 95.4% probability (Houston et al. 2018).

Complex	Provenience	Structure	Context	Date Ranges
Acropolis	EZ-2G-7-8	L7-1	Fill surrounding intrusive Burial 5	260 - 536 AD
Acropolis	EZ-2A-13-3	L7-6-Sub. 1	Fill below penultimate floor	410 - 583 AD
Acropolis	EZ-2G-23-3	L7-1-Sub. 1?	Fill of possible substructure	433 – 650 AD
Acropolis	EZ-2H-5-8	L7-1	Fill of remodeling over the Early Classic base of structure	680 – 881 AD
Acropolis	EZ-2H-9-3	Restricted Patio	Fill from final phase	687 – 940 AD
Acropolis	EZ-2G-2-2	L7-1	Termination deposit	774 – 978 AD
Acropolis	EZ-2G-4-5	L7-1	Termination deposit	776 – 990 AD
La Luna	IR-58C-1-3	Main Patio	Plaza fill immediately above bedrock	375 - 203 BC
La Luna	EZ-27C-2-5	Str. T1-11	Chultun cache	652 - 768 AD
La Luna	EZ-27C-2-7	Str. T1-11	Chultun cache	608 - 688 AD
La Luna	EZ-27C-9-9	Str. T1-11	Burial 38	652 - 768 AD
La Luna	EZ-27D-12-6	Str. T1-3	Fill most likely from second iteration of structure	656 – 769 AD
La Luna	EZ-27D-13-2	Str. T1-3	Collapse over final floor in front of structure	695 - 891 AD

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info@betalabservices.com

ISO/IEC 17025:2005-Accredited Testing Laboratory

REPORT OF RADIOCARBON DATING ANALYSES

Anna Bishop

UCLA and Proyecto Arqueológico de El Zotz

Report Date: October 04, 2019

Material Received: September 20, 2019

Laboratory Number	Sample Code Number	Conventional Radiocarbon Age (BP) or Percent Modern Carbon (pMC) & Stable Isotopes Calendar Calibrated Results: 95.4 % Probability High Probability Density Range Method (HPD)	
Beta - 537762	**EZ-27C-9-9**	**1320 +/- 30 BP**	IRMS δ13C: -26.4 o/oo
(72.9%)	**652 - 722 cal AD**	**(1298 - 1228 cal BP)**	
(22.5%)	**740 - 768 cal AD**	**(1210 - 1182 cal BP)**	

Submitter Material: Charcoal
Pretreatment: (charred material) acid/alkali/acid
Analyzed Material: Charred material
Analysis Service: AMS-Standard delivery
Percent Modern Carbon: 84.85 +/- 0.32 pMC
Fraction Modern Carbon: 0.8485 +/- 0.0032
D14C: -151.53 +/- 3.17 o/oo
Δ14C: -158.58 +/- 3.17 o/oo (1950:2019)
Measured Radiocarbon Age: (without d13C correction): 1340 +/- 30 BP
Calibration: BetaCal3.21: HPD method: INTCAL13

Results are ISO/IEC-17025:2005 accredited. No sub-contracting or student labor was used in the analyses. All work was done at Beta in 4 in-house NEC accelerator mass spectrometers and 4 Thermo IRMSs. The "Conventional Radiocarbon Age" was calculated using the Libby half-life (5568 years), is corrected for total isotopic fraction and was used for calendar calibration where applicable. The Age is rounded to the nearest 10 years and is reported as radiocarbon years before present (BP), "present" = AD 1950. Results greater than the modern reference are reported as percent modern carbon (pMC). The modern reference standard was 95% the 14C signature of NIST SRM-4990C (oxalic acid). Quoted errors are 1 sigma counting statistics. Calculated sigmas less than 30 BP on the Conventional Radiocarbon Age are conservatively rounded up to 30. d13C values are on the material itself (not the AMS d13C). d13C and d15N values are relative to VPDB-1. References for calendar calibrations are cited at the bottom of calibration graph pages.

Beta Analytic Inc
4985 SW 74 Court
Miami, Florida 33155
Tel: 305-667-5167
Fax: 305-663-0964
info@betalabservices.com

ISO/IEC 17025:2005-Accredited Testing Laboratory

REPORT OF RADIOCARBON DATING ANALYSES

Anna Bishop

UCLA and Proyecto Arqueológico de El Zotz

Report Date: October 04, 2019

Material Received: September 20, 2019

Laboratory Number	Sample Code Number	Conventional Radiocarbon Age (BP) or Percent Modern Carbon (pMC) & Stable Isotopes Calendar Calibrated Results: 95.4 % Probability High Probability Density Range Method (HPD)	
Beta - 537763	**EZ-27C-6-3**	**750 +/- 30 BP**	IRMS δ13C: -26.1 o/oo
(95.4%)	**1222 - 1286 cal AD**	**(728 - 664 cal BP)**	

Submitter Material: Charcoal
Pretreatment: (charred material) acid/alkali/acid
Analyzed Material: Charred material
Analysis Service: AMS-Standard delivery
Percent Modern Carbon: 91.09 +/- 0.34 pMC
Fraction Modern Carbon: 0.9109 +/- 0.0034
D14C: -89.14 +/- 3.40 o/oo
Δ14C: -96.71 +/- 3.40 o/oo (1950:2019)
Measured Radiocarbon Age: (without d13C correction): 770 +/- 30 BP
Calibration: BetaCal3.21: HPD method: INTCAL13

Results are ISO/IEC-17025:2005 accredited. No sub-contracting or student labor was used in the analyses. All work was done at Beta in 4 in-house NEC accelerator mass spectrometers and 4 Thermo IRMSs. The "Conventional Radiocarbon Age" was calculated using the Libby half-life (5568 years), is corrected for total isotopic fraction and was used for calendar calibration where applicable. The Age is rounded to the nearest 10 years and is reported as radiocarbon years before present (BP), "present" = AD 1950. Results greater than the modern reference are reported as percent modern carbon (pMC). The modern reference standard was 95% the 14C signature of NIST SRM-4990C (oxalic acid). Quoted errors are 1 sigma counting statistics. Calculated sigmas less than 30 BP on the Conventional Radiocarbon Age are conservatively rounded up to 30. d13C values are on the material itself (not the AMS d13C). d13C and d15N values are relative to VPDB-1. References for calendar calibrations are cited at the bottom of calibration graph pages.

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Anna Bishop

UCLA and Proyecto Arqueológico de El Zotz

Report Date: October 04, 2019

Material Received: September 20, 2019

Laboratory Number	Sample Code Number	Conventional Radiocarbon Age (BP) or Percent Modern Carbon (pMC) & Stable Isotopes Calendar Calibrated Results: 95.4 % Probability High Probability Density Range Method (HPD)	
Beta - 537764	**EZ-27D-12-6**	**1310 +/- 30 BP**	IRMS δ13C: -24.9 o/oo
(68.0%)	**656 - 727 cal AD**	**(1294 - 1223 cal BP)**	
(27.4%)	**737 - 769 cal AD**	**(1213 - 1181 cal BP)**	

Submitter Material: Charcoal
Pretreatment: (charred material) acid/alkali/acid
Analyzed Material: Charred material
Analysis Service: AMS-Standard delivery
Percent Modern Carbon: 84.95 +/- 0.32 pMC
Fraction Modern Carbon: 0.8495 +/- 0.0032
D14C: -150.48 +/- 3.17 o/oo
Δ14C: -157.54 +/- 3.17 o/oo (1950:2019)
Measured Radiocarbon Age: (without d13C correction): 1310 +/- 30 BP
Calibration: BetaCal3.21: HPD method: INTCAL13

Results are ISO/IEC-17025:2005 accredited. No sub-contracting or student labor was used in the analyses. All work was done at Beta in 4 in-house NEC accelerator mass spectrometers and 4 Thermo IRMSs. The "Conventional Radiocarbon Age" was calculated using the Libby half-life (5568 years), is corrected for total isotopic fraction and was used for calendar calibration where applicable. The Age is rounded to the nearest 10 years and is reported as radiocarbon years before present (BP), "present" = AD 1950. Results greater than the modern reference are reported as percent modern carbon (pMC). The modern reference standard was 95% the 14C signature of NIST SRM-4990C (oxalic acid). Quoted errors are 1 sigma counting statistics. Calculated sigmas less than 30 BP on the Conventional Radiocarbon Age are conservatively rounded up to 30. d13C values are on the material itself (not the AMS d13C). d13C and d15N values are relative to VPDB-1. References for calendar calibrations are cited at the bottom of calibration graph pages.

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REPORT OF RADIOCARBON DATING ANALYSES

Anna Bishop

UCLA and Proyecto Arqueológico de El Zotz

Report Date: October 04, 2019

Material Received: September 20, 2019

Laboratory Number	Sample Code Number	Conventional Radiocarbon Age (BP) or Percent Modern Carbon (pMC) & Stable Isotopes Calendar Calibrated Results: 95.4 % Probability High Probability Density Range Method (HPD)	
Beta - 537765	**EZ-27D-13-2**	**1210 +/- 30 BP**	IRMS δ13C: -25.6 o/oo
(84.0%)	**764 - 891 cal AD**	**(1186 - 1059 cal BP)**	
(10.8%)	**710 - 745 cal AD**	**(1240 - 1205 cal BP)**	
(0.6%)	**695 - 700 cal AD**	**(1255 - 1250 cal BP)**	

Submitter Material: Charcoal
Pretreatment: (charred material) acid/alkali/acid
Analyzed Material: Charred material
Analysis Service: AMS-Standard delivery
Percent Modern Carbon: 86.02 +/- 0.32 pMC
Fraction Modern Carbon: 0.8602 +/- 0.0032
D14C: -139.83 +/- 3.21 o/oo
Δ14C: -146.98 +/- 3.21 o/oo (1950:2019)
Measured Radiocarbon Age: (without d13C correction): 1220 +/- 30 BP
Calibration: BetaCal3.21: HPD method: INTCAL13

Results are ISO/IEC-17025:2005 accredited. No sub-contracting or student labor was used in the analyses. All work was done at Beta in 4 in-house NEC accelerator mass spectrometers and 4 Thermo IRMSs. The "Conventional Radiocarbon Age" was calculated using the Libby half-life (5568 years), is corrected for total isotopic fraction and was used for calendar calibration where applicable. The Age is rounded to the nearest 10 years and is reported as radiocarbon years before present (BP), "present" = AD 1950. Results greater than the modern reference are reported as percent modern carbon (pMC). The modern reference standard was 95% the 14C signature of NIST SRM-4990C (oxalic acid). Quoted errors are 1 sigma counting statistics. Calculated sigmas less than 30 BP on the Conventional Radiocarbon Age are conservatively rounded up to 30. d13C values are on the material itself (not the AMS d13C). d13C and d15N values are relative to VPDB-1. References for calendar calibrations are cited at the bottom of calibration graph pages.

BetaCal 3.21

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL13)

(Variables: d13C = -23.5 o/oo)

Laboratory number **Beta-502775**

Conventional radiocarbon age **2220 ± 30 BP**

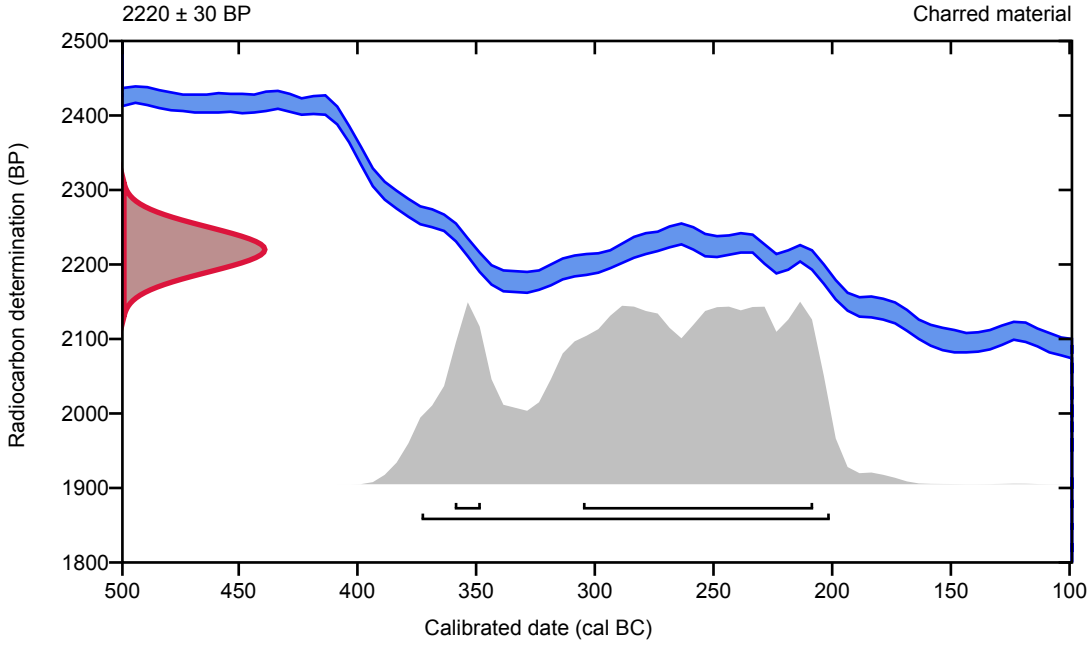
95.4% probability

(95.4%)	375 - 203 cal BC	(2324 - 2152 cal BP)

68.2% probability

(61.6%)	307 - 210 cal BC	(2256 - 2159 cal BP)
(6.6%)	361 - 350 cal BC	(2310 - 2299 cal BP)

IR 58C-1-3



Database used

INTCAL13

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL13

Reimer, et.al., 2013, Radiocarbon55(4).

BetaCal 3.21

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL13)

(Variables: d13C = -24.2 o/oo)

Laboratory number **Beta-502776**

Conventional radiocarbon age **1320 ± 30 BP**

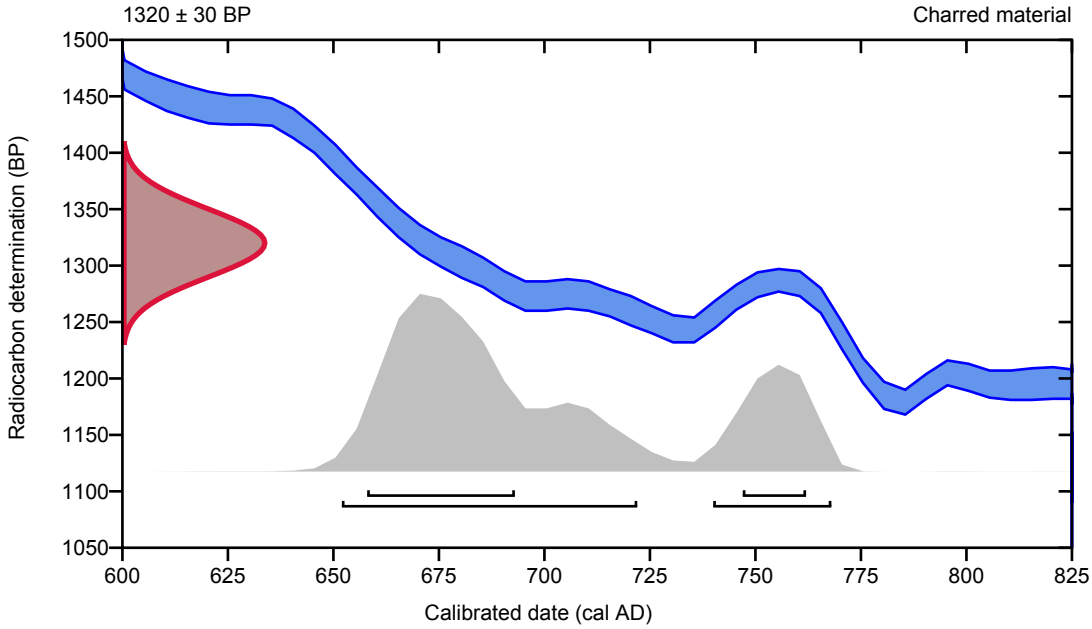
95.4% probability

(73%)	652 - 722 cal AD	(1298 - 1228 cal BP)
(22.4%)	740 - 768 cal AD	(1210 - 1182 cal BP)

68.2% probability

(52.3%)	658 - 693 cal AD	(1292 - 1257 cal BP)
(15.9%)	747 - 762 cal AD	(1203 - 1188 cal BP)

EZ 27C-2-5



Database used

INTCAL13

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL13

Reimer, et.al., 2013, Radiocarbon55(4).

BetaCal 3.21

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL13)

(Variables: d13C = -27.4 o/oo)

Laboratory number **Beta-502777**

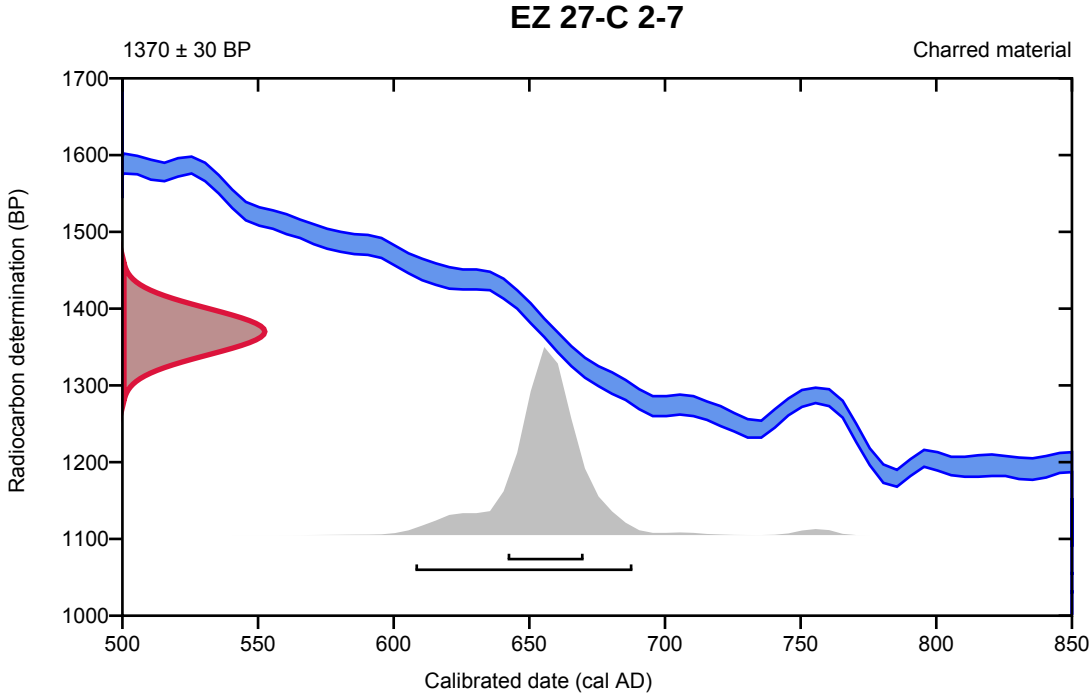
Conventional radiocarbon age **1370 ± 30 BP**

95.4% probability

(95.4%) 608 - 688 cal AD (1342 - 1262 cal BP)

68.2% probability

(68.2%) 642 - 670 cal AD (1308 - 1280 cal BP)



Database used

INTCAL13

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL13

Reimer, et.al., 2013, Radiocarbon55(4).

BetaCal 3.21

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL13)

(Variables: d13C = -26.1 o/oo)

Laboratory number **Beta-537763**

Conventional radiocarbon age **750 ± 30 BP**

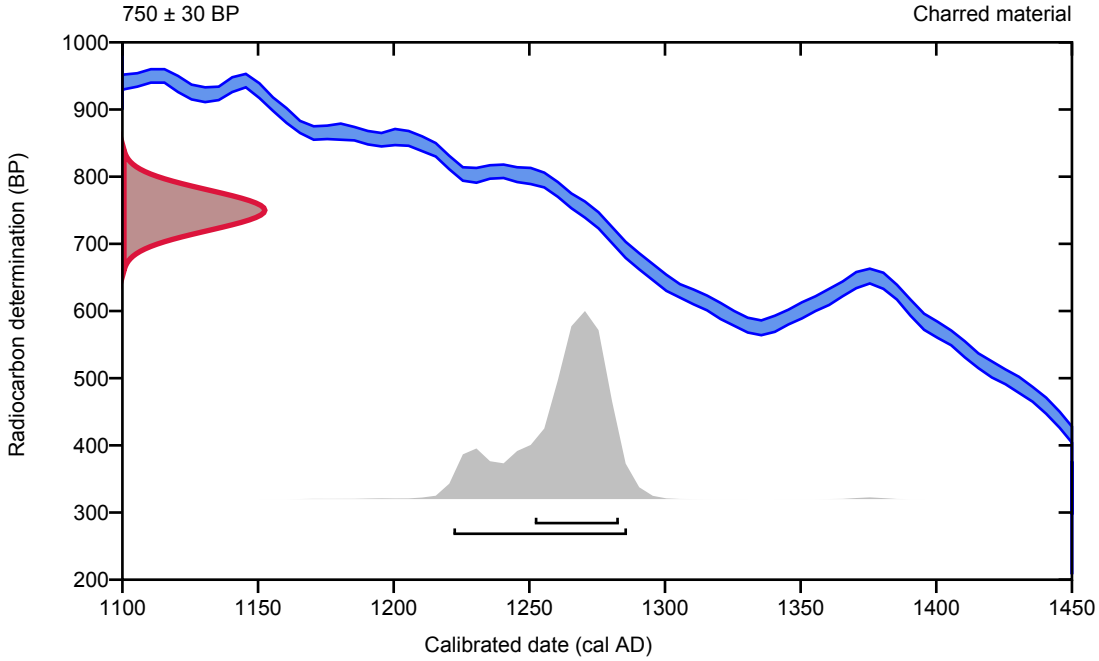
95.4% probability

(95.4%) 1222 - 1286 cal AD (728 - 664 cal BP)

68.2% probability

(68.2%) 1252 - 1283 cal AD (698 - 667 cal BP)

EZ-27C-6-3



Database used

INTCAL13

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL13

Reimer, et.al., 2013, Radiocarbon55(4).

BetaCal 3.21

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL13)

(Variables: d13C = -26.4 o/oo)

Laboratory number **Beta-537762**

Conventional radiocarbon age **1320 ± 30 BP**

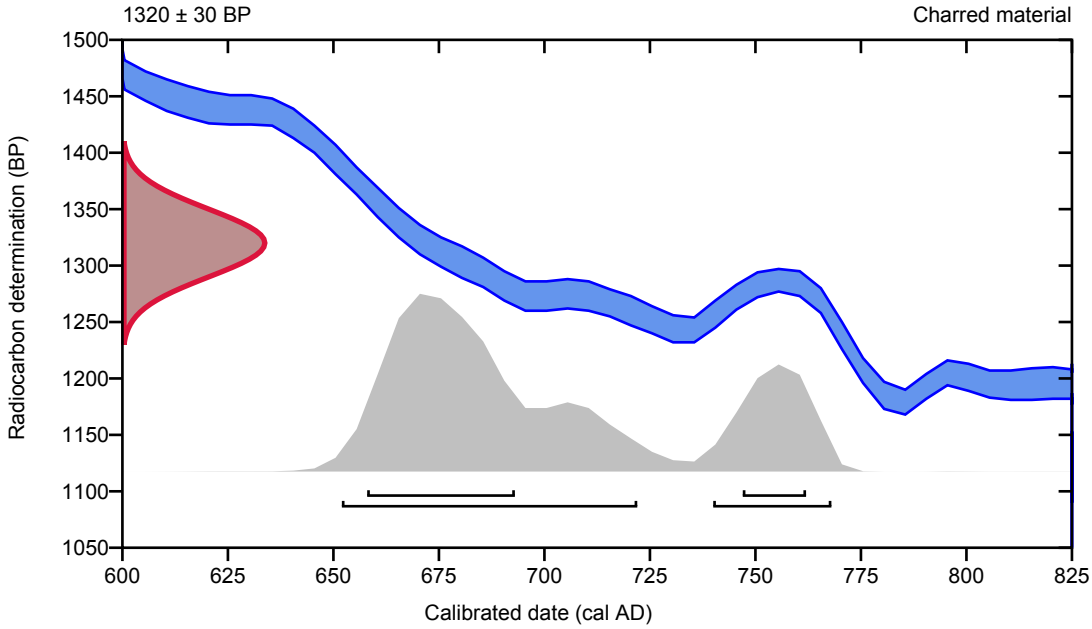
95.4% probability

(72.9%)	652 - 722 cal AD	(1298 - 1228 cal BP)
(22.5%)	740 - 768 cal AD	(1210 - 1182 cal BP)

68.2% probability

(52.3%)	658 - 693 cal AD	(1292 - 1257 cal BP)
(15.9%)	747 - 762 cal AD	(1203 - 1188 cal BP)

EZ-27C-9-9



Database used

INTCAL13

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL13

Reimer, et.al., 2013, Radiocarbon55(4).

BetaCal 3.21

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL13)

(Variables: d13C = -24.9 o/oo)

Laboratory number **Beta-537764**

Conventional radiocarbon age **1310 ± 30 BP**

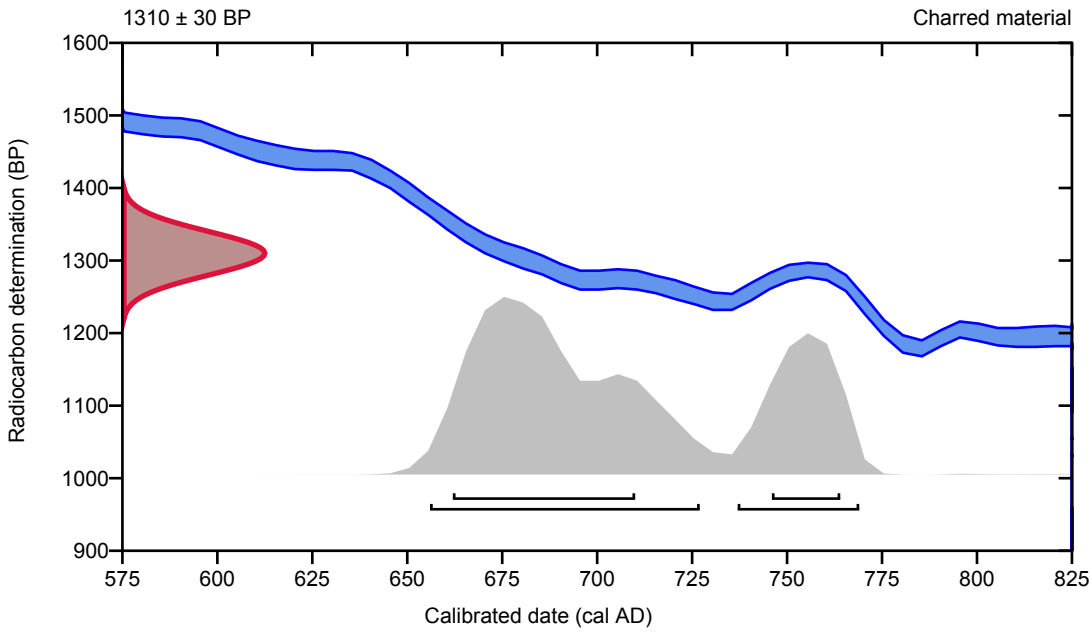
95.4% probability

(68%)	656 - 727 cal AD	(1294 - 1223 cal BP)
(27.4%)	737 - 769 cal AD	(1213 - 1181 cal BP)

68.2% probability

(50.1%)	662 - 710 cal AD	(1288 - 1240 cal BP)
(18.1%)	746 - 764 cal AD	(1204 - 1186 cal BP)

EZ-27D-12-6



Database used

INTCAL13

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL13

Reimer, et.al., 2013, Radiocarbon55(4).

BetaCal 3.21

Calibration of Radiocarbon Age to Calendar Years

(High Probability Density Range Method (HPD): INTCAL13)

(Variables: d13C = -25.6 o/oo)

Laboratory number **Beta-537765**

Conventional radiocarbon age **1210 ± 30 BP**

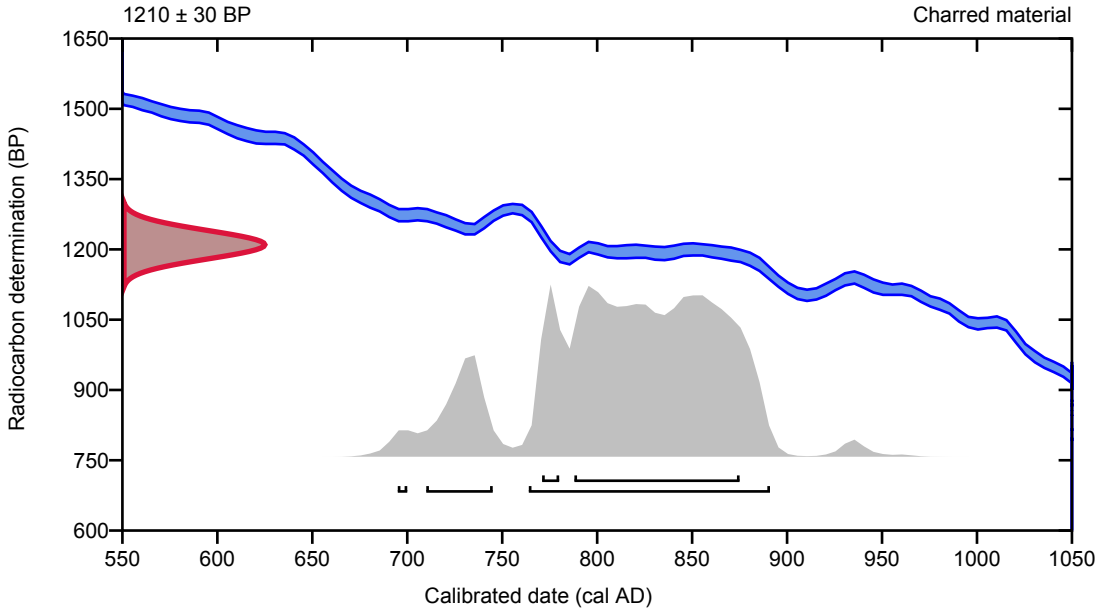
95.4% probability

(84%)	764 - 891 cal AD	(1186 - 1059 cal BP)
(10.8%)	710 - 745 cal AD	(1240 - 1205 cal BP)
(0.6%)	695 - 700 cal AD	(1255 - 1250 cal BP)

68.2% probability

(61.9%)	788 - 875 cal AD	(1162 - 1075 cal BP)
(6.3%)	771 - 780 cal AD	(1179 - 1170 cal BP)

EZ-27D-13-2



Database used

INTCAL13

References

References to Probability Method

Bronk Ramsey, C. (2009). Bayesian analysis of radiocarbon dates. Radiocarbon, 51(1), 337-360.

References to Database INTCAL13

Reimer, et.al., 2013, Radiocarbon55(4).

APPENDIX D: LA LUNA CERAMICS

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27A-1-1	LC	Erosionado	Erosionado	Erosionado	2		22	1		1				1						25	26	430
EZ-27A-1-1	LC	Encanto	Encanto Estriado	Encanto			2						2								2	24
EZ-27A-1-1	LC	Tinaja	Tinaja Rojo	Tinaja	1		2							1						2	3	369
EZ-27A-1-2	LC	Encanto	Encanto Estriado	Encanto		1	13					1	13								14	632
EZ-27A-1-2	LC	Infierno	Infierno Negro	Infierno			3	1								3				1	4	118
EZ-27A-1-2	LC	Erosionado	Erosionado	Erosionado	3	3	49	1	5			2	3	2		5				49	61	825
EZ-27A-1-2	LC	Tinaja	Tinaja Rojo	Tinaja			4									1				3	4	153
EZ-27A-1-2	LC	Tinaja	Chinja Impreso	Chinja	1									1							1	26
EZ-27A-1-2	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			1							1							1	7
EZ-27A-1-3	LC	Erosionado	Erosionado	Erosionado	1	1	7					1			1					7	9	163
EZ-27A-1-3	LC	Cambio	Cambio Sin Engobe	Cambio			2						2								2	90
EZ-27A-1-3	LC	Encanto	Encanto Estriado	Encanto			1						1								1	28
EZ-27A-1-3	LC	Tinaja	Tinaja Rojo	Tinaja			2													2	2	48
EZ-27A-2-1	LC	Tinaja	Tinaja Rojo	Tinaja			1						1								1	2
EZ-27A-2-2	LC	Erosionado	Erosionado	Erosionado			5													5	5	26
EZ-27A-2-2	LC	Tinaja	Tinaja Rojo	Tinaja			2									2					2	33
EZ-27A-2-3	LC	Infierno	Infierno Negro	Infierno			1							1							1	3
EZ-27A-2-3	LC	Tinaja	Tinaja Rojo	Tinaja			3							2						1	3	39
EZ-27A-2-3	LC	Encanto	Encanto Estriado	Encanto			2	1					3								3	26
EZ-27A-2-3	LC	Cambio	Miseria aplicado	Miseria						2										2	2	24
EZ-27A-2-3	LC	Erosionado	Erosionado	Erosionado	1		15					1								15	16	110
EZ-27A-2-4	LC	Erosionado	Erosionado	Erosionado	7	2	53	2	3			5		3	1	3				55	67	1485
EZ-27A-2-4	LC	Erosionado	Erosionado Gubiado-Inciso	ND						1										1	1	1
EZ-27A-2-4	LC	Cambio	Cambio Sin Engobe	Cambio			5						5								5	100
EZ-27A-2-4	LC	Encanto	Encanto Estriado	Encanto		3	32	1				3	33								36	788
EZ-27A-2-4	LC	Infierno	Infierno Negro	Infierno			2						1							1	2	8
EZ-27A-2-4	LC	Azote	Azote Naranja	Azote	2	1		3				2	1							3	6	190
EZ-27A-2-4	LC	Erosionado	Erosionado Inciso	ND	1						1										1	172
EZ-27A-2-4	LC	Tinaja	Tinaja Rojo	Tinaja	4	1	30	3				3	2	2		16				15	38	2116
EZ-27A-2-4	LC	Tinaja	Subin Rojo	Subin	1							1									1	49
EZ-27A-2-4	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			4													4	4	30
EZ-27A-2-4	LC	Posible Policromo	Posible Policromo	Posible Policromo			2	1						1						2	3	58
EZ-27A-2-5	LC	Color Diferenciado	Variegated	ND	1		1	1				1				1				1	3	160
EZ-27A-2-5	LC	Cambio	Cambio Sin Engobe	Cambio		3	8					3	8								11	190
EZ-27A-2-5	LC	Encanto	Encanto Estriado	Encanto			10						10								10	151
EZ-27A-2-5	LC	Erosionado	Erosionado	Erosionado	1	2	12					3								12	15	330
EZ-27A-2-5	LC	Maquina	Canoa inciso	Canoa			1													1	1	18
EZ-27A-2-5	LC	Tinaja	Tinaja Rojo	Tinaja	1		3						1	1						2	4	72
EZ-27A-2-5	LC	Azote	Azote Naranja	Azote			1													1	1	19
EZ-27A-2-5	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			1									1					1	3
EZ-27B-1-1	LC	Erosionado	Erosionado	Erosionado			2													2	2	7
EZ-27B-1-1	LC	Tinaja	Tinaja Rojo	Tinaja			1									1					1	2
EZ-27B-1-2	LC	Encanto	Encanto Estriado	Encanto			3						3								3	61
EZ-27B-1-2	LC	Cambio	Cambio Sin Engobe	Cambio			1						1								1	14
EZ-27B-1-2	LC	Erosionado	Erosionado	Erosionado			2													2	2	19
EZ-27B-1-2	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			1													1	1	4
EZ-27B-1-3	LC	Erosionado	Erosionado	Erosionado		1	8		1			1	8			1					10	178
EZ-27B-1-3	LC	Cambio	Cambio Sin Engobe	Cambio			4						4								4	100
EZ-27B-1-3	LC	Encanto	Encanto Estriado	Encanto			3						3								3	66
EZ-27B-1-3	LC	Infierno	Infierno Negro	Infierno			1						1								1	5
EZ-27B-1-3	LC	Tinaja	Tinaja Rojo	Tinaja			3									3					3	45
EZ-27B-1-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1		1	1								3					3	44
EZ-27B-1-4	LC	Erosionado	Erosionado	Erosionado	1		4	1												6	6	168
EZ-27B-1-4	LC	Cambio	Cambio Sin Engobe	Cambio			1						1								1	27
EZ-27B-1-4	LC	Encanto	Encanto Estriado	Encanto			3						3								3	25
EZ-27B-1-4	LC	Infierno	Infierno Negro	Infierno			1						1								1	3
EZ-27B-1-4	LC	Tinaja	Tinaja Rojo	Tinaja			1									1					1	5
EZ-27B-2-1	LC	Erosionado	Erosionado	Erosionado			2													2	2	49
EZ-27B-2-1	LC	Azote	Azote Naranja	Azote			1													1	1	3
EZ-27B-2-2	LC	Erosionado	Erosionado	Erosionado			4													4	4	31

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27B-2-2	LC	Encanto	Encanto Estriado	Encanto			3						3								3	49
EZ-27B-2-2	LC	Tinaja	Tinaja Rojo	Tinaja			1													1	1	20
EZ-27B-2-3	LC	Erosionado	Erosionado	Erosionado	1		18	2		1										22	22	400
EZ-27B-2-3	LC	Tinaja	Tinaja Rojo	Tinaja		1	1													2	2	73
EZ-27B-2-3	LC	Encanto	Encanto Estriado	Encanto		1	6					1	6								7	126
EZ-27C-1-1	LC	Infierno	Infierno Negro	Infierno			1						1								1	67
EZ-27C-1-1	LC	Tinaja	Tinaja Rojo	Tinaja			3						1			2					3	71
EZ-27C-1-1	LC	Tinaja	Chaquiste Impreso	Gloria	2									2							2	409
EZ-27C-1-1	LC	Naranja ND	Naranja ND	Naranja ND		1						1									1	42
EZ-27C-1-1	LC	Erosionado	Erosionado	Erosionado	2	2	11					3				1				11	15	302
EZ-27C-1-1	LC	Erosionado	Erosionado Perforado	ND			1							1							1	82
EZ-27C-1-1	LC	Negro ND	Negro ND	Negro ND					1							1					1	32
EZ-27C-1-1	LC	Sin Engobe ND	Sin Engobe ND	Sin Engobe ND	2	1	31					3	31								34	1103
EZ-27C-1-1	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			2	1					1		1					1	3	84
EZ-27C-1-1	LC	Posible Policromo	Posible Policromo	Posible Policromo			2						2								2	5
EZ-27C-1-1	LC	Dos Arroyos	Dos Arroyos Naranja Policromo	Dos Arroyos	1										1						1	10
EZ-27C-1-1	LC	Saxche-Palmar	Leona Rojo/Naranja	Leona			2									2					2	120
EZ-27C-1-1	LC	Color Diferenciado	Variegated	ND	1		1							1		1					2	65
EZ-27C-1-1	LC	Sin Engobe Estriado NI	Sin Engobe Estriado ND	Sin Engobe Estriado		3	29					3	29								32	809
EZ-27C-1-1	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1									1							1	34
EZ-27C-1-1	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	2		2	2						2	2	2					6	115
EZ-27C-1-2	LC	Cambio	Manteca Impreso	Manteca	1		1					1	1								2	48
EZ-27C-1-2	LC	Balanza	Balanza Negro	Balanza			6			1			4			2				1	7	62
EZ-27C-1-2	LC	Café ND	Café ND	Café ND			3	1					4								4	96
EZ-27C-1-2	LC	Infierno	Infierno Negro	Infierno	1		8	1				1	6			2				1	10	225
EZ-27C-1-2	LC	Erosionado	Erosionado	Erosionado	6		47	5		1		1	2	3						53	59	862
EZ-27C-1-2	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	4		4							6	1	1					8	60
EZ-27C-1-2	LC	Saxche-Palmar	Leona Rojo/Naranja	Leona			4							3		1					4	11
EZ-27C-1-2	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel Amarillo			4						1			3					4	4
EZ-27C-1-2	LC	Zacatal	Paixban Ante Policromo	Paixban	1		1									2					2	6
EZ-27C-1-2	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	2		3	1						5	1						6	90
EZ-27C-1-2	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Zotz Rojo				1								1					1	13
EZ-27C-1-2	LC	Tinaja	Tinaja Rojo	Tinaja	1		29					1	25			4					30	510
EZ-27C-1-2	LC	Tinaja	Tinaja Rojo	Manchado ND			1						1								1	4
EZ-27C-1-2	LC	Tinaja	Chaquiste Impreso	Chaquiste	2									2							2	178
EZ-27C-1-2	LC	Tinaja	Chinja Impreso	Chinja	1									1							1	27
EZ-27C-1-2	LC	Tinaja	Chinja Impreso	sellada	1									1							1	30
EZ-27C-1-2	LC	Sin Engobe ND	Sin Engobe ND	Sin Engobe ND	6	1	76					7	76								83	1837
EZ-27C-1-2	LC	Aguila	Aguila Naranja	Aguila	1	3	3					4	2			1					7	262
EZ-27C-1-2	LC	Sin Engobe Estriado NI	Sin Engobe Estriado ND	Sin Engobe Estriado		3	110	5				3	115								118	2491
EZ-27C-1-2	LC	Color Diferenciado	Variegated	ND			6						3			3					6	100
EZ-27C-1-2	LC	Dos Arroyos	Dos Arroyos Naranja Policromo	Dos Arroyos	1										1						1	10
EZ-27C-1-2	LC	Posible Policromo	Posible Policromo	Posible Policromo	2		13	3		1			10		2	5				2	19	187
EZ-27C-1-2	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	3		9	1		1				3	1	9				1	14	97
EZ-27C-1-3	LC	Encanto	Encanto Estriado	Encanto		2	65					2	65								67	1268
EZ-27C-1-3	LC	Cambio	Cambio Sin Engobe	Cambio	4	1	29	1				5	30								35	922
EZ-27C-1-3	LC	Erosionado	Erosionado	Erosionado	3	2	92	1				4			1					93	98	1076
EZ-27C-1-3	LC	Infierno	Infierno Negro	Infierno			9	1					5			5					10	232
EZ-27C-1-3	LC	Balanza	Balanza Negro	Balanza				1								1					1	13
EZ-27C-1-3	LC	Maquina	Maquina café	Maquina			4						3							1	4	39
EZ-27C-1-3	LC	Harina	Harina Crema	Harina			2						2								2	2
EZ-27C-1-3	LC	Naranja ND	Naranja ND	Naranja ND	1		3					1	1			1				1	4	32
EZ-27C-1-3	LC	Tinaja	Tinaja rojo	Tinaja	1		24						14			5				6	25	260
EZ-27C-1-3	LC	Policromo ND	Policromo ND	Policromo ND	1		1						1	1							2	4
EZ-27C-1-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel Amarillo	1									1							1	13
EZ-27C-1-3	LC	Saxche-Palmar	Leona rojo/Naranja	Leona			4						1			3					4	21
EZ-27C-1-3	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2		3							3						2	5	57
EZ-27C-1-3	LC	Posible Policromo	Posible Policromo	Posible Policromo			10	4					2	2		7				3	14	153
EZ-27C-1-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	5		3	2						5	2	3					10	170
EZ-27C-1-3	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori			2	1						1		1				1	3	25

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27C-1-3	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			3									3					3	25
EZ-27C-1-4	LC	Cambio	Cambio Sin Engobe	Cambio	2	3	35					5	35								40	873
EZ-27C-1-4	LC	Encanto	Encanto Estriado	Encanto		3	75	2				3	77								80	1782
EZ-27C-1-4	LC	Erosionado	Erosionado	Erosionado	3	1	64	4				3		2	1					66	72	1617
EZ-27C-1-4	LC	Tinaja	Tinaja Rojo	Tinaja		1	33	1				1	23			5				6	35	572
EZ-27C-1-4	LC	Infierno	Infierno Negro	Infierno			8						1			1				6	8	143
EZ-27C-1-4	LC	Maquina	Maquina café	Maquina			4						2							2	4	15
EZ-27C-1-4	LC	Azote	Azote Naranja	Azote			2						1							1	2	20
EZ-27C-1-4	LC	Azote	Salada Acanalado	Salada			1							1							1	2
EZ-27C-1-4	LC	Harina	Harina Crema	Harina			1													1	1	2
EZ-27C-1-4	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2		6						1			4				3	8	75
EZ-27C-1-4	LC	Posible Policromo	Posible Policromo	Posible Policromo			9						1			5				3	9	50
EZ-27C-1-4	LC	Saxche-Palmar	Leona rojo/Naranja	Leona	2		2						1	2		1					4	12
EZ-27C-1-4	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori	1		1							1		1					2	7
EZ-27C-1-4	LC	Dos Arroyos	San Blas Rojo/Naranja	San Blas			1									1					1	15
EZ-27C-1-4	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	3		1					1		1	1	1					4	27
EZ-27C-1-4	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	3		12					1	2	7	1	4					15	126
EZ-27C-1-4	LC	Zacatal	Zacatal Crema Policromo	Miel Amarillo			1													1	1	4
EZ-27C-1-4	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel Amarillo			1							1							1	10
EZ-27C-1-sup	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado					1							1					1	5
EZ-27C-1-sup	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1									1							1	5
EZ-27C-2-1	LC	Encanto	Encanto Estriado	Encanto		1	8					1	8								9	290
EZ-27C-2-1	LC	Erosionado	Erosionado	Erosionado	4	1	22	2	1			4		1		1				24	30	806
EZ-27C-2-1	LC	Cambio	Cambio Sin Engobe	Cambio	1		3	1				1	3							1	5	240
EZ-27C-2-1	LC	Azote	Azote Naranja	Azote		1	1					1								1	2	50
EZ-27C-2-1	LC	Infierno	Infierno Negro	Infierno			2													2	2	45
EZ-27C-2-1	LC	Maquina	Maquina café	Maquina			1						1								1	25
EZ-27C-2-1	LC	Tinaja	Tinaja Rojo	Tinaja	1		5					1	2			2				1	6	324
EZ-27C-2-1	LC	Tinaja	Chaquiste Impreso	Chaquiste			1							1							1	70
EZ-27C-2-1	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			1									1					1	25
EZ-27C-2-1	LC	Posible Policromo	Posible Policromo	Posible Policromo			2													2	2	27
EZ-27C-2-1	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	2		1							2	1						3	123
EZ-27C-2-1	LC	Saxche-Palmar	Leona rojo/Naranja	Leona			1									1					1	56
EZ-27C-2-1	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori			1									1					1	5
EZ-27C-2-1	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal			1							1							1	4
EZ-27C-2-1	LC	Zacatal	Paixban Ante Policromo	Paixban			1							1							1	4
EZ-27C-2-2	LC	Cambio	Cambio Sin Engobe	Cambio		1	3					1	3								4	400
EZ-27C-2-2	LC	Erosionado	Erosionado	Erosionado	3	6	48	1				9								49	58	1136
EZ-27C-2-2	LC	Encanto	Encanto Estriado	Encanto	1	4	36					5	36								41	1298
EZ-27C-2-2	LC	Cambio	Cambio Sin Engobe	Cambio	6	4	23					10	23								33	1111
EZ-27C-2-2	LC	Negro rosada	Negro rosada	ND			1									1					1	19
EZ-27C-2-2	LC	Harina	Harina Crema	Harina			2									1				1	2	33
EZ-27C-2-2	LC	Infierno	Infierno Negro	Infierno			6						3			2				1	6	100
EZ-27C-2-2	LC	Maquina	Maquina café	Maquina		1	1					1	1								2	59
EZ-27C-2-2	LC	Tinaja	Tinaja Rojo	Tinaja			35						18			13				4	35	554
EZ-27C-2-2	LC	Tinaja	Chaquiste Impreso	Chaquiste			1							1							1	2
EZ-27C-2-2	LC	Aguila	Aguila Naranja	Aguila	1									1							1	92
EZ-27C-2-2	LC	Zacatal	Paixban Ante Policromo	Paixban			1						1								1	1
EZ-27C-2-2	LC	Azote	Torres Inciso	Torres			1							1							1	1
EZ-27C-2-2	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori	2		1						1	1	1						3	20
EZ-27C-2-2	LC	Saxche-Palmar	Leona rojo/Naranja	Leona	1		6	2							2	6				1	9	215
EZ-27C-2-2	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	7	1	4	1				2		5	4	2					13	175
EZ-27C-2-2	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal	2									2							2	15
EZ-27C-2-2	LC	Posible Policromo	Posible Miel Amarillo	Posible Miel Amarillo			3	1					1			3					4	18
EZ-27C-2-2	LC	Posible Policromo	Posible Policromo	Posible Policromo	1	1	7	1				2	1	2		3				2	10	221
EZ-27C-2-2	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	3	1	6	2					1	2	3	4				2	12	280
EZ-27C-2-2	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel Amarillo	2		5							4	2	1					7	69
EZ-27C-2-2	LC	Zacatal	Zacatal Crema Policromo	Ik Pink Glyph variety			1							1							1	50
EZ-27C-2-2	LC	Harina	Corrales Inciso	Corrales			1									1					1	7
EZ-27C-2-2	LC	Saxche-Palmar	Petkanche	Petkanche			1							1							1	5

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27C-2-3	LC	Tinaja	Tinaja Rojo	Tinaja			26	1					19	1		7					27	800
EZ-27C-2-3	LC	Maquina	Maquina café	Maquina	1	1	5					1	5	1							7	128
EZ-27C-2-3	LC	Infierno	Infierno Negro	Infierno		1	2					1	2								3	66
EZ-27C-2-3	LC	Balanza	Balanza Negro	Balanza			3						1							2	3	36
EZ-27C-2-3	LC	Tinaja	Grey firing lines	ND			2						1			1					2	25
EZ-27C-2-3	LC	Color Diferenciado	Variegated	ND			3						3								3	37
EZ-27C-2-3	LC	Erosionado	Erosionado	Erosionado	7	5	29	6	1		1	5		2	2	2				36	48	1484
EZ-27C-2-3	LC	Sin Engobe ND	Sin Engobe ND	Sin Engobe ND	4	5	35	3				8	38							1	47	2261
EZ-27C-2-3	LC	Sin Engobe Estriado NI	Sin Engobe Estriado ND	Sin Engobe Estriado		5	53	4				5	57								62	1723
EZ-27C-2-3	LC	Naranja ND	Naranja ND	Naranja ND			3						3								3	82
EZ-27C-2-3	LC	Harina	Harina Crema	Harina			2	1					3								3	23
EZ-27C-2-3	LC	Harina	Corrales Inciso	Corrales			1							1							1	2
EZ-27C-2-3	LC	Tinaja	Camarón Inciso	Corozal			1						1								1	4
EZ-27C-2-3	LC	Encanto	Valente Estriado-Impreso	Valente		1	1					1	1								2	145
EZ-27C-2-3	LC	Tinaja	Chaquiste Impreso	Chaquiste	5		1							6							6	453
EZ-27C-2-3	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		4		1					1	1	4					6	140
EZ-27C-2-3	LC	Posible Policromo	Posible Policromo	Posible Policromo		1	14	1				1	5	1	1	8					16	108
EZ-27C-2-3	LC	Santa Rosa	Suktan	Zotz Rojo			1								1						1	48
EZ-27C-2-3	LC	Policromo ND	Policromo ND	Policromo ND			2	3					2	2	1	1					5	237
EZ-27C-2-3	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			3							3							3	18
EZ-27C-2-3	LC	Zacatal	Chinos Negro/Crema	Chinos			1							1							1	17
EZ-27C-2-3	LC	Zacatal	Paixban Ante Policromo	Paixban	1			1						2							2	60
EZ-27C-2-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal	1		1						1	1							2	21
EZ-27C-2-3	LC	Saxche-Palmar	Petkanche	Petkanche			1							1							1	7
EZ-27C-2-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Zotz Rojo			1	1						1	1						2	32
EZ-27C-2-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel Amarillo	2		8	1						9		2					11	83
EZ-27C-2-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	8		9	2					2	7	6	4					19	414
EZ-27C-2-3	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori				1						1							1	4
EZ-27C-2-3	LC	Saxche-Palmar	Leona Rojo/Naranja	Leona	1		4						1	1	1					2	5	30
EZ-27C-2-4	LC	Tinaja	Tinaja Rojo	Tinaja	4	5	71	3				8	54	19		2					83	7618
EZ-27C-2-4	LC	Tinaja	Chaquiste Impreso	Chaquiste	2		1							3							3	320
EZ-27C-2-4	LC	Infierno	Infierno Negro	Infierno	1		10						9		1	1					11	135
EZ-27C-2-4	LC	Harina	Harina Crema	Harina			3						1			2					3	23
EZ-27C-2-4	LC	Color Diferenciado	Manchado negativo?	ND			1						1								1	93
EZ-27C-2-4	LC	Color Diferenciado	Variegated	ND	1		4						4		1						5	30
EZ-27C-2-4	LC	Naranja ND	Naranja ND	Naranja ND			1						1								1	48
EZ-27C-2-4	LC	Color Diferenciado	Variegated impreso	ND	1		1					2									2	145
EZ-27C-2-4	LC	Erosionado	Erosionado	Erosionado	12	3	44	7				5		5	1					55	66	4371
EZ-27C-2-4	LC	Erosionado	Erosionado Inciso	ND	1							1									1	391
EZ-27C-2-4	LC	Sin Engobe ND	Sin Engobe ND	Sin Engobe ND	4	2	51		1	3		6	51							4	61	3714
EZ-27C-2-4	LC	Encanto	Encanto Estriado	Encanto	2							2									2	1878
EZ-27C-2-4	LC	Sin Engobe Estriado NI	Sin Engobe Estriado ND	Sin Engobe Estriado	2	9	102	12				11	114								125	5643
EZ-27C-2-4	LC	Posible Policromo	Posible Miel Amarillo	Posible Miel Amarillo			5						1			4					5	30
EZ-27C-2-4	LC	Posible Policromo	Posible Policromo	Posible Policromo	1	1	28	6				1	7	2	1	11			1	13	36	250
EZ-27C-2-4	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	3		17	1					1	4	4					12	21	
EZ-27C-2-4	LC	Tinaja	Camarón Inciso	Corozal			1						1								1	14
EZ-27C-2-4	LC	Santa Rosa	Mataculebra	Zotz Rojo	2										2						2	188
EZ-27C-2-4	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	3		4							4		3					8	652
EZ-27C-2-4	LC	Zacatal	Zacatal Crema Policromo	Miel Amarillo			4	1						5							5	75
EZ-27C-2-4	LC	Dos Arroyos	Dos Arroyos Naranja Policromo	Dos Arroyos	1									1							1	56
EZ-27C-2-4	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal	1		1							2							2	30
EZ-27C-2-4	LC	Saxche-Palmar	Petkanche	Petkanche		1	1							2							2	20
EZ-27C-2-4	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel Amarillo	4		9	2						15							15	170
EZ-27C-2-4	LC	Saxche-Palmar	Leona Rojo/Naranja	Leona			9	1						5					1	4	10	75
EZ-27C-2-4	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori	1		2							2					1		3	30
EZ-27C-2-4	LC	Zacatal	Paixban Ante Policromo	Paixban			2						1		1						2	35
EZ-27C-2-4	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	10	1	13	6	1			2	2	13	5	8				1	31	646
EZ-27C-2-5	LC	Encanto	Encanto Estriado	Encanto			6	2					8								8	985
EZ-27C-2-5	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1									1							1	736
EZ-27C-2-5	LC	Tinaja	Tinaja Rojo	Tinaja	2		2					2	2								4	534

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27C-2-5	LC	Erosionado	Erosionado	Erosionado			2	1					3								3	292
EZ-27C-2-6	LC	Cambio	Cambio Sin Engobe	Cambio	1		6	1				1	7								8	597
EZ-27C-2-6	LC	Erosionado	Erosionado	Erosionado	4	1	3	1				3		1	2					3	9	2280
EZ-27C-2-6	LC	Encanto	Encanto Estriado	Encanto	1		15					1	15								16	821
EZ-27C-2-6	LC	Color Diferenciado	Manchado negativo?	ND			2						2								2	362
EZ-27C-2-6	LC	Tinaja	Camarón Inciso	Camarón			1									1					1	12
EZ-27C-2-6	LC	Tinaja	Chaquiste Impreso	Chaquiste			1							1							1	285
EZ-27C-2-6	LC	Tinaja	Tinaja Rojo	Tinaja			9	2					11								11	1105
EZ-27C-2-6	LC	Harina	Harina Crema	Harina			1													1	1	13
EZ-27C-2-6	LC	Posible Policromo	Posible Policromo	Posible Policromo	1		1					1	1								2	73
EZ-27C-2-6	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			3							1		2					3	16
EZ-27C-2-6	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1													1	1	11
EZ-27C-2-6	LC	Zacatal	Paixban Ante Policromo	Paixban			1							1							1	20
EZ-27C-2-7	LC	Tinaja	Tinaja Rojo	Tinaja	1		2					2				1					3	1227
EZ-27C-2-7	LC	Encanto	Encanto Estriado	Encanto	1							1									1	214
EZ-27C-2-7	LC	Cambio	Cambio Sin Engobe	Cambio	1		1	1				1	2								3	619
EZ-27C-2-7	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1									1							1	2
EZ-27C-2-7	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal	2									2							2	200
EZ-27C-2-7	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1									1					1	4
EZ-27C-2-7	LC	Infierno	Infierno Negro	Infierno			1						1								1	5
EZ-27C-2-7	LC	Maquina	Maquina Café	Maquina			1						1								1	5
EZ-27C-2-8	LC	Maquina	Maquina Café	Maquina	1						1										1	54
EZ-27C-3-1	TC	Erosionado	Erosionado	Erosionado	1		10	1	1					1		1				11	13	150
EZ-27C-3-1	TC	Encanto	Encanto Estriado	Encanto			3						3								3	25
EZ-27C-3-1	TC	Infierno	Infierno Negro	Infierno			1									1					1	2
EZ-27C-3-2	TC	Encanto	Encanto Estriado	Encanto		1	19					1	19								20	282
EZ-27C-3-2	TC	Encanto	Encanto Estriado-Inciso	ND			1						1								1	24
EZ-27C-3-2	TC	Azote	Azote Naranja	Azote		1	2					1				1				1	3	31
EZ-27C-3-2	TC	Tinaja	Tinaja Rojo	Tinaja			2													2	2	25
EZ-27C-3-2	TC	Erosionado	Erosionado Aplicado	ND						1								1			1	5
EZ-27C-3-2	TC	Erosionado	Erosionado	Erosionado	12	4	68	6				6		8		1				75	90	1615
EZ-27C-3-3	TC	Encanto	Encanto Estriado	Encanto		1	27					1	27								28	324
EZ-27C-3-3	TC	Erosionado	Erosionado	Erosionado	11	14	160	8	3			19		2		3				172	196	2429
EZ-27C-3-3	TC	Erosionado	Erosionado inciso	ND	1									1							1	1
EZ-27C-3-3	TC	Infierno	Infierno Negro	Infierno	1		3							1		1				2	4	25
EZ-27C-3-3	TC	Maquina	Maquina Café	Maquina			2													2	2	5
EZ-27C-3-3	TC	Azote	Azote Naranja	Azote	1	1	5					1		1		1				4	7	187
EZ-27C-3-3	TC	Posible Policromo	Posible Policromo	Posible Policromo			2									1				1	2	7
EZ-27C-3-3	TC	Tinaja	Subin Rojo	Subin			4													4	4	75
EZ-27C-3-3	TC	Tinaja	Tinaja Rojo	Tinaja	2		5							2		2				3	7	111
EZ-27C-4-1	TC	Tinaja	Tinaja Rojo	Tinaja			1													1	1	18
EZ-27C-4-2	TC	Erosionado	Erosionado	Erosionado	2	2	65	4				2		1						70	73	1560
EZ-27C-4-2	TC	Encanto	Encanto Estriado	Encanto		2	28					2	28								30	932
EZ-27C-4-2	TC	Paxcaman	Paxcaman Rojo	Paxcaman	4	1	6		1			2		3		2				5	12	246
EZ-27C-4-2	TC	Paxcaman	Picu Inciso	Picu	1									1							1	40
EZ-27C-4-2	TC	Fulano	Fulano negro	Fulano	1		1							1		1					2	89
EZ-27C-4-2	TC	Sin Engobe ND	Sin Engobe ND	con baño			1						1								1	20
EZ-27C-4-2	TC	Sin Engobe ND	Sin Engobe ND	Sin Engobe ND	1	2	10					3	10								13	429
EZ-27C-4-2	TC	Azote	Azote Naranja	Azote			3									1				2	3	70
EZ-27C-4-3	TC	Erosionado	Erosionado	Erosionado	1	1	29	3	1			1		1		1				32	35	705
EZ-27C-4-3	TC	Erosionado	Erosionado inciso	ND	1									1							1	47
EZ-27C-4-3	TC	Cambio	Cambio Sin Engobe	Cambio	1	1	11					2	11								13	284
EZ-27C-4-3	TC	Encanto	Encanto Estriado	Encanto			13	1					14								14	433
EZ-27C-4-3	TC	Tinaja	Tinaja Rojo	Tinaja			2						1							1	2	8
EZ-27C-4-3	TC	Tinaja	Subin Rojo	Subin			2									1				1	2	42
EZ-27C-4-3	TC	Infierno	Infierno Negro	Infierno			2						1			1					2	20
EZ-27C-4-3	TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	3		1							3						1	4	29
EZ-27C-4-3	TC	Maquina	Maquina Café	Maquina			3						1							2	3	50
EZ-27C-4-3	TC	Azote	Azote Naranja	Azote			3						1							2	3	57
EZ-27C-4-4	LC?	Erosionado	Erosionado	Erosionado		1	1													2	2	10

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27C-4-4	LC?	Encanto	Encanto Estriado	Encanto			5						5								5	115
EZ-27C-4-4	LC?	Cambio	Cambio Sin Engobe	Cambio	1		6					1	6								7	190
EZ-27C-4-4	LC?	Erosionado	Erosionado impreso	Estilo Chinja ND	1									1							1	40
EZ-27C-4-4	LC?	Infierno	Infierno Negro	Infierno			1													1	1	2
EZ-27C-4-4	LC?	Maquina	Maquina Café	Maquina			1													1	1	2
EZ-27C-4-4	LC?	Tinaja	Tinaja Rojo	Tinaja			4						1			1				2	4	122
EZ-27C-4-4	LC?	Posible Policromo	Posible Policromo	Posible Policromo	1		1							1		1					2	25
EZ-27C-4-4	LC?	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			2							1		1					2	26
EZ-27C-5-1	TC	Erosionado	Erosionado	Erosionado		1	3	2				1								5	6	210
EZ-27C-5-1	TC	Encanto	Encanto Estriado	Encanto			1						1								1	52
EZ-27C-5-1	TC	Tinaja	Tinaja Rojo	Tinaja			1													1	1	3
EZ-27C-5-1	TC	Azote	Azote Naranja	Azote			1													1	1	5
EZ-27C-5-1	TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			1							1							1	2
EZ-27C-5-2	TC	Erosionado	Erosionado	Erosionado		1	6					1								6	7	175
EZ-27C-5-2	TC	Cambio	Cambio Sin Engobe	Cambio			8						8								8	145
EZ-27C-5-2	TC	Encanto	Encanto Estriado	Encanto			7						7								7	110
EZ-27C-5-2	TC	Cambio	Cambio Sin Engobe	Bañado		1						1									1	23
EZ-27C-5-2	TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2		2							2						2	4	50
EZ-27C-5-3	TC	Cambio	Cambio Sin Engobe	Cambio			5						5								5	190
EZ-27C-5-3	TC	Encanto	Encanto Estriado	Encanto			4						4								4	62
EZ-27C-5-3	TC	Erosionado	Erosionado	Erosionado	3		3					2				1				3	6	140
EZ-27C-5-3	TC	Tinaja	Tinaja Rojo	Tinaja			1													1	1	7
EZ-27C-5-3	TC	Color Diferenciado	Variegated	ND			1						1								1	2
EZ-27C-5-3	TC	Azote	Azote Naranja	Azote			1						1								1	8
EZ-27C-5-4	TC	Encanto	Encanto Estriado	Encanto			5						5								5	125
EZ-27C-5-4	TC	Erosionado	Erosionado	Erosionado	3		11	2						1		2				13	16	250
EZ-27C-5-4	TC	Cambio	Cambio Sin Engobe	Cambio	1	1	10					2	10								12	356
EZ-27C-5-4	TC	Tinaja	Tinaja Rojo	Tinaja			2									1				1	2	75
EZ-27C-5-4	TC	Maquina	Maquina Café	Maquina			1									1					1	14
EZ-27C-5-4	TC	Azote	Azote Naranja	Azote			6						1			1				4	6	186
EZ-27C-5-4	TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2		3							1	1	2				1	5	150
EZ-27C-5-5	LC-TC	Erosionado	Erosionado	Erosionado	2	1	14					2		1						14	17	275
EZ-27C-5-5		Cambio	Cambio Sin Engobe	Cambio	2		15					2	15								17	435
EZ-27C-5-5		Encanto	Encanto Estriado	Encanto	1	1	14					2	14								16	510
EZ-27C-5-5		Tinaja	TInaja Rojo	TInaja	1		6					1	3			1				2	7	185
EZ-27C-5-5		Infierno	Infierno Negro	Infierno			2						2								2	12
EZ-27C-5-5		Tinaja	Camarón Inciso	Camarón			1						1								1	11
EZ-27C-5-5		Tinaja	Chaquiste Impreso	Chaquiste	1									1							1	141
EZ-27C-5-5		Altar	Posible Naranja Fina	Posible Naranja Fina	1		2							1						2	3	35
EZ-27C-5-5		Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	2		5	1						4		2			1	1	8	175
EZ-27C-5-5		Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal			1							1							1	14
EZ-27C-5-5		Posible Policromo	Posible Policromo	Posible Policromo	1										1						1	15
EZ-27C-5-5		Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1							1							1	7
EZ-27C-5-5	LC	Cambio	Manteca Impreso	Manteca	1							1									1	92
EZ-27C-5-5		Infierno	Infierno Negro	Infierno			6									1				5	6	71
EZ-27C-5-5		Tinaja	Chinja Impreso	Chinja	1									1							1	153
EZ-27C-5-5		Tinaja	Camarón Inciso	Camarón		1						1									1	18
EZ-27C-5-5		Encanto	Encanto Estriado	Encanto		2	23					2	23								25	850
EZ-27C-5-5		Erosionado	Erosionado	Erosionado	5	1	13		1			2		1	1	1				15	20	400
EZ-27C-5-5		cambio	Cambio Sin Engobe	Cambio	3	7	25					10	25								35	998
EZ-27C-5-5		Erosionado	Erosionado Aplicado	ND	1											1					1	25
EZ-27C-5-5		Tinaja	Tinaja Rojo	Tinaja	2		13							1	1	5				8	15	397
EZ-27C-5-5		Azote	Azote Naranja	Azote			4						2							2	4	75
EZ-27C-5-5		Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		8	1						1		6				3	10	152
EZ-27C-5-5		Posible Policromo	Posible Policromo	Posible Policromo			4						1							3	4	25
EZ-27C-5-5		saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	6		3							7	1	1					9	320
EZ-27C-5-5		Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal	1									1							1	60
EZ-27C-5-5		Saxche-Palmar	Leona Rojo/Naranja	Leona			2						1			1					2	17
EZ-27C-5-5		Zacatal	Petkanche	Petkanche			1						1								1	12
EZ-27C-6-1	C	Erosionado	Erosionado	Erosionado	1		10							1						10	11	200

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27C-6-1	C	Encanto	Encanto Estriado	Encanto			2						2								2	22
EZ-27C-6-1	C	Cambio	Cambio Sin Engobe	Cambio	1		4					1	4								5	100
EZ-27C-6-2	TC	Erosionado	Erosionado	Erosionado	2	2	26	1				3		1		1				26	31	458
EZ-27C-6-2	TC	Cambio	Cambio Sin Engobe	Cambio			9						9								9	113
EZ-27C-6-2	TC	Encanto	Encanto Estriado	Encanto		1	12					1	12								13	218
EZ-27C-6-2	TC	Azote	Azote Naranja	Azote	1		6							1		1				5	7	152
EZ-27C-6-2		Erosionado	Erosionado	Erosionado	4	4	53	3	3			6				5				56	67	910
EZ-27C-6-2		cambio	Cambio Sin Engobe	Cambio	3	3	12					6	12								18	235
EZ-27C-6-2		Encanto	Encanto Estriado	Encanto		2	43					2	43								45	780
EZ-27C-6-2		Azote	Azote Naranja	Azote	1		9	2						1		3				8	12	275
EZ-27C-6-2		Tinaja	Tinaja Rojo	Tinaja	2		5					1		1	2					3	7	210
EZ-27C-6-2		Tinaja	Subin Rojo	Subin	1		2					1								2	3	90
EZ-27C-6-2		Infierno	Infierno Negro	Infierno			4									2				2	4	77
EZ-27C-6-2		Azote	Azote sellada inciso	ND		1														1	1	10
EZ-27C-6-2		Tinaja	Camarón Inciso	Camarón	1									1							1	15
EZ-27C-6-3		Erosionado	Erosionado	Erosionado	4		46	5						2						53	55	1000
EZ-27C-6-3	TC	Cambio	Cambio Sin Engobe	Cambio	1	3	21					4	21								25	500
EZ-27C-6-3		Encanto	Encanto Estriado	Encanto		2	42					2	42								44	800
EZ-27C-6-3		Erosionado	Erosionado Inciso	ND	1		1							1						1	2	63
EZ-27C-6-3		Tinaja	Tinaja Rojo	Tinaja	1		3							1		1				2	4	125
EZ-27C-6-3		Tinaja	Subin Rojo	Subin			1									1					1	8
EZ-27C-6-3		Azote	Azote Naranja	Azote	1	1	4					2				1				3	6	325
EZ-27C-6-3		Infierno	Infierno Negro	Infierno			3									2				1	3	55
EZ-27C-6-4	TC	Erosionado	Erosionado	Erosionado	6	2	32	2				4		1						37	42	620
EZ-27C-6-4		Cambio	Cambio Sin Engobe	Cambio	2	4	23					6	23								29	470
EZ-27C-6-4		Erosionado	Erosionado Inciso	ND	1		1							2							2	43
EZ-27C-6-4		Encanto	Encanto Estriado	Encanto		5	18					5	18								23	460
EZ-27C-6-4		Infierno	Infierno Negro	Infierno			6						1			1				4	6	188
EZ-27C-6-4		Maquina	Maquina Café	Maquina	1									1							1	60
EZ-27C-6-4		Tinaja	Tinaja Rojo	Tinaja	2		12	1					3	2		5				5	15	344
EZ-27C-6-4		Azote	Azote Naranja	Azote	2		3					2								3	5	247
EZ-27C-6-4		Posible Policromo	Posible Policromo	Posible Policromo				4								3				1	4	115
EZ-27C-7-1	TC	Erosionado	Erosionado	Erosionado		1	6					1								6	7	74
EZ-27C-7-2	TC	Erosionado	Erosionado	Erosionado	3	4	40	2				3		2						44	49	1120
EZ-27C-7-2	TC	Cambio	Cambio Sin Engobe	Cambio	2	3	22					4	22							1	27	425
EZ-27C-7-2	TC	Encanto	Encanto Estriado	Encanto			18						18								18	265
EZ-27C-7-2	TC	Tinaja	Tinaja Rojo	Tinaja			2	1								2				1	3	62
EZ-27C-7-2	TC	Tinaja	Subin Rojo	Subin	2		3							2		2				1	5	56
EZ-27C-7-2	TC	Azote	Azote Naranja	Azote		1	4	1				1		1						4	6	152
EZ-27C-7-2	TC	Infierno	Infierno Negro	Infierno			3									1				2	3	130
EZ-27C-7-3	TC	Erosionado	Erosionado	Erosionado	2		36	2						2		2				36	40	500
EZ-27C-7-3	TC	Cambio	Cambio Sin Engobe	Cambio	4	2	8					6	8								14	325
EZ-27C-7-3	TC	Encanto	Encanto Estriado	Encanto		3	33					3	33								36	1080
EZ-27C-7-3	TC	Infierno	Infierno Negro	Infierno	1			1				1				1					2	35
EZ-27C-7-3	TC	Maquina	Maquina Café	Maquina			1									1					1	2
EZ-27C-7-3	TC	Tinaja	Tinaja Rojo	Tinaja		1	4					1				2				2	5	720
EZ-27C-7-3	TC	Tinaja	Subin Rojo	Subin			6						1			1				4	6	150
EZ-27C-7-3	TC	Azote	Azote Naranja	Azote			4						3							1	4	108
EZ-27C-7-3	TC	Tinaja	Chaquiste Impreso	Chaquiste	1									1							1	35
EZ-27C-7-3	TC	Azote	Azote Impreso	Estilo Chinja ND	1									1							1	51
EZ-27C-7-3	TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	3		4	1						4	1	1				2	8	125
EZ-27C-7-3	TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1		1							1		1					2	18
EZ-27C-7-3	TC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1									1							1	50
EZ-27C-7-3	TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal			1							1							1	27
EZ-27C-8-1	TC	Erosionado	Erosionado	Erosionado	4		10					1		1						12	14	134
EZ-27C-8-1	TC	Encanto	Encanto Estriado	Encanto			4						4								4	50
EZ-27C-8-1	TC	Maquina	Maquina Café	Maquina			1													1	1	32
EZ-27C-8-1	TC	Azote	Azote Naranja	Azote			1													1	1	13
EZ-27C-8-1	TC	Tinaja	Camarón Inciso	Camarón	1									1							1	14
EZ-27C-8-2	TC	Encanto	Encanto Estriado	Encanto			5						5								5	50

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27C-8-2	TC	Erosionado	Erosionado	Erosionado	4		16	1				4								17	21	435
EZ-27C-8-2	TC	Cambio	Cambio Sin Engobe	Cambio	1		1					1	1								2	23
EZ-27C-8-2	TC	Azote	Azote Naranja	Azote		1	3					1	1			1				1	4	83
EZ-27C-8-2	TC	Tinaja	Subin Rojo	Subin			2													2	2	25
EZ-27C-9-1	C	Azote	Azote Naranja	Azote						1										1	1	18
EZ-27C-9-1	C	Erosionado	Erosionado	Erosionado			8													8	8	85
EZ-27C-9-1	C	Encanto	Encanto Estriado	Encanto		1	2					1	2								3	63
EZ-27C-9-2	TC	Erosionado	Erosionado	Erosionado	1		16													17	17	193
EZ-27C-9-2	TC	EnCanto	Encanto Estriado	Encanto			5						5								5	125
EZ-27C-9-2	TC	Azote	Azote Naranja	Azote			2									1				1	2	15
EZ-27C-9-3	TC	Encanto	Encanto Estriado	Encanto			12	1					13								13	225
EZ-27C-9-3	TC	Cambio	Cambio Sin Engobe	Cambio	3	1	8					4	8								12	290
EZ-27C-9-3	TC	Erosionado	Erosionado	Erosionado	2	1	17	3				1		2	1					19	23	840
EZ-27C-9-3	TC	Erosionado	Erosionado inciso	ND	1									1							1	250
EZ-27C-9-3	TC	Infierno	Infierno Negro	Infierno			2									1				1	2	18
EZ-27C-9-3	TC	Azote	Azote Naranja	Azote			3									2				1	3	49
EZ-27C-9-3	TC	Tinaja	Tinaja Rojo	Tinaja			8									2				6	8	140
EZ-27C-9-3	TC	Harina	Harina Crema	Harina			1													1	1	49
EZ-27C-9-3	TC	Harina	Corrales Inciso	Corrales	1									1							1	85
EZ-27C-9-4	TC	Encanto	Encanto Estriado	Encanto		1	3					1	3								4	325
EZ-27C-9-4	TC	Cambio	Cambio Sin Engobe	Cambio	2	2	1					4	1								5	120
EZ-27C-9-4	TC	Erosionado	Erosionado	Erosionado			7	1						1						7	8	250
EZ-27C-9-4	TC	Harina	Harina Crema	Harina			1													1	1	15
EZ-27C-9-4	TC	Tinaja	Camarón Inciso	Camarón	1									1							1	50
EZ-27C-9-4	TC	Tinaja	Tinaja Rojo	Tinaja				1					1								1	65
EZ-27C-9-4	TC	Azote	Azote Naranja	Azote	1		1					1				1					2	92
EZ-27C-9-5	TC	ERosionado	ERosionado	ERosionado	10	2	40	4				4		5	1	1	1			44	56	1791
EZ-27C-9-5	TC	ERosionado	Erosionado modelado	ND			1													1	1	8
EZ-27C-9-5	TC	ERosionado	Erosionado Impreso	ND			1													1	1	11
EZ-27C-9-5	TC	Encanto	Encanto Estriado	Encanto		8	40					8	40								48	1305
EZ-27C-9-5	TC	Cambio	Cambio Sin Engobe	Cambio	4	5	18					9	18								27	825
EZ-27C-9-5	TC	Infierno	Infierno Negro	Infierno			6	2						2		2				4	8	373
EZ-27C-9-5	TC	Azote	Azote Naranja	Azote	1		5					1								5	6	209
EZ-27C-9-5	TC	Color Diferenciado	Variegated	ND			2									1				1	2	22
EZ-27C-9-5	TC	Tinaja	Tinaja Rojo	Tinaja	2	1	8					3				3				5	11	250
EZ-27C-9-5	TC	Tinaja	Subin Rojo	Subin	3	1	14					2		2		5				9	18	1236
EZ-27C-9-5	TC	Tinaja	Subin Rojo impreso	Estilo Chinja ND	1									1							1	30
EZ-27C-9-5	TC	Azote	Torres Inciso	Torres	1									1							1	20
EZ-27C-9-5	TC	Erosionado	Erosionado Inciso	ND	2			1						3							3	56
EZ-27C-9-5	TC	Erosionado	Erosionado Acanalado	ND			2							2							2	10
EZ-27C-9-5	TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal			2							2							2	40
EZ-27C-9-5	TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2		5							2		5					7	45
EZ-27C-9-5	TC	Zacatal	Paixban Ante Policromo	Paixban	1		1							2							2	8
EZ-27C-9-6	LC?	EnCanto	Encanto Estriado	Encanto			7						7								7	95
EZ-27C-9-6	LC?	Cambio	Cambio Sin Engobe	Cambio			4						4								4	57
EZ-27C-9-6	LC?	Harina	Harina Crema	Harina			1						1								1	2
EZ-27C-9-6	LC?	Erosionado	Erosionado	Erosionado	3	1	16					4	16								20	289
EZ-27C-9-6	LC?	Tinaja	Tinaja Rojo	Tinaja		1								1							1	23
EZ-27C-9-6	LC?	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Posible Zotz Rojo			1							1							1	7
EZ-27C-9-6	LC?	Saxche-Palmar	Leona Rojo/Naranja	Leona			1						1								1	3
EZ-27C-9-7	TC	Cambio	Cambio Sin Engobe	Cambio	1		7					1	7								8	100
EZ-27C-9-7	TC	Erosionado	Erosionado	Erosionado			7													7	7	90
EZ-27C-9-7	TC	Encanto	Encanto Estriado	Encanto		1	9					1	9								10	130
EZ-27C-9-7	TC	Infierno	Infierno Negro	Infierno			2						1							1	2	32
EZ-27C-9-7	TC	Tinaja	Subin Rojo	Subin			3									1				2	3	25
EZ-27C-9-7	TC	Tinaja	Tinaja Rojo	Tinaja			1									1					1	20
EZ-27C-9-7	TC	Maquina	Maquina Café	Maquina			1													1	1	12
EZ-27C-9-7	TC	Tinaja	Chaquiste Impreso	Chaquiste	1									1							1	25
EZ-27C-9-7	TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		1							1		1					2	10
EZ-27C-9-7	TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			1							1							1	6

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27C-9-7	TC	Saxche-Palmar	Leona Rojo/Naranja	Leona			1							1							1	2
EZ-27C-9-7	TC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1							1							1	1
EZ-27C-9-8	LC, TC?	Encanto	Encanto Estriado	Encanto		1	71	4				1	75								76	1501
EZ-27C-9-8	LC, TC?	Erosionado	Erosionado	Erosionado	10	2	96	6				3	1	4	3	4	1			98	114	1448
EZ-27C-9-8	LC, TC?	Cambio	Cambio Sin Engobe	Cambio	12	11	60	1				20	64								84	2081
EZ-27C-9-8	LC, TC?	Cambio	Miseria Aplicado	Miseria						1								1			1	9
EZ-27C-9-8	LC, TC?	Tinaja	Tinaja Rojo	Tinaja	2	1	36					2	9	1		9				18	39	496
EZ-27C-9-8	LC, TC?	Azote	Azote Naranja	Azote	1		5					1	2			1				2	6	73
EZ-27C-9-8	LC, TC?	Tinaja	Subin Rojo	Subin			11						1			5				5	11	135
EZ-27C-9-8	LC, TC?	Tinaja	Subin Rojo impreso	Estilo Chaquiste ND	1		1							2							2	40
EZ-27C-9-8	LC, TC?	Maquina	Maquina Café	Maquina	1	1	8					1	4	1		2				2	10	95
EZ-27C-9-8	LC, TC?	Infierno	Infierno Negro	Infierno			8	1					4			1				4	9	125
EZ-27C-9-8	LC, TC?	Tinaja	Chaquiste Impreso	Chaquiste			1							1							1	60
EZ-27C-9-8	LC, TC?	Tinaja	Camarón Inciso	Camarón			1									1					1	8
EZ-27C-9-8	LC, TC?	Color Diferenciado	Variegated	ND			3									1				2	3	30
EZ-27C-9-8	LC, TC?	Encanto	Encanto Estriado Sellado	ND			1						1								1	18
EZ-27C-9-8	LC, TC?	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	6		10	4						7	2					11	20	250
EZ-27C-9-8	LC, TC?	Posible Policromo	Posible Policromo	Posible Policromo	1		9	1							1	5				5	11	75
EZ-27C-9-8	LC, TC?	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	14		17	5					2	10	3	14			4	3	36	503
EZ-27C-9-8	LC, TC?	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori	1		3							1		3					4	39
EZ-27C-9-8	LC, TC?	Saxche-Palmar	Leona Rojo/Naranja	Leona	1		3							3		1					4	22
EZ-27C-9-8	LC, TC?	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1		8	1					1	2		6				1	10	60
EZ-27C-9-8	LC, TC?	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal			5							4						1	5	40
EZ-27C-9-8	LC, TC?	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel amarillo	2		7	1						9	1						10	60
EZ-27C-9-8	LC, TC?	Fino ND	imitacion pasta fino ND	ND			1													1	1	6
EZ-27C-9-9	LC	Encanto	Encanto Estriado	Encanto			1						1								1	23
EZ-27C-9-9	LC	Cambio	Cambio Sin Engobe	Cambio			2						2								2	6
EZ-27C-9-9	LC	Erosionado	Erosionado	Erosionado	1									1							1	10
EZ-27C-9-9	LC	Maquina	Maquina Café	Maquina			1									1					1	2
EZ-27C-9-9	LC	Tinaja	Tinaja Rojo	Tinaja			1									1					1	13
EZ-27C-9-9	LC	Saxche-Palmar	Leona Rojo/Naranja	Miel amarillo			3							1		2					3	25
EZ-27C-9-9	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			1													1	1	1
EZ-27C-9-9	LC	Posible Policromo	Posible Policromo	Posible Policromo			2						1			1					2	6
EZ-27C-9-9	LC	Zacatal	Chinos Negro/crema	Chinos	1									1							1	5
EZ-27C-9-10	LC	Encanto	Encanto Estriado	Encanto		7	30	2				7	32								39	909
EZ-27C-9-10	LC	Cambio	Cambio Sin Engobe	Cambio	4	2	25					6	25								31	575
EZ-27C-9-10	LC	Erosionado	Erosionado	Erosionado	8	2	57	4				3		4						64	71	912
EZ-27C-9-10	LC	Azote	Azote Naranja	Azote			4									1				3	4	37
EZ-27C-9-10	LC	Harina	Harina Crema	Harina			1						1								1	20
EZ-27C-9-10	LC	Tinaja	Tinaja Rojo	Tinaja	1		20							1		8				12	21	330
EZ-27C-9-10	LC	Infierno	Infierno Negro	Infierno	1		7							1		1				6	8	100
EZ-27C-9-10	LC	Color Diferenciado	Variegated	ND			3									3					3	27
EZ-27C-9-10	LC	Tinaja	Chaquiste Impreso	Chaquiste	1		1							2							2	48
EZ-27C-9-10	LC	Tinaja	Subin Rojo impreso	Estilo Chinja ND	1									1							1	17
EZ-27C-9-10	LC	Tinaja	Subin Rojo impreso	Estilo Chaquiste ND			1							1							1	11
EZ-27C-9-10	LC	Cambio	Manteca Impreso	Manteca			1						1								1	17
EZ-27C-9-10	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	4		2							4		2					6	75
EZ-27C-9-10	LC	Posible Policromo	Posible Policromo	Posible Policromo			6									3			2	1	6	95
EZ-27C-9-10	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	2		1							2						1	3	70
EZ-27C-9-10	LC	Saxche-Palmar	Leona Rojo/Naranja	Miel amarillo			3									2			1		3	54
EZ-27C-9-10	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel amarillo			5							5							5	42
EZ-27C-9-10	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	9		2	1						8	2	2					12	150
EZ-27C-9-11	LC	Encanto	Encanto Estriado	Encanto		3	2					3	2								5	57
EZ-27C-9-11	LC	Cambio	Cambio Sin Engobe	Cambio			3						3								3	23
EZ-27C-9-11	LC	Erosionado	Erosionado	Erosionado			4	1												5	5	40
EZ-27C-9-11	LC	Tinaja	Subin Rojo	Subin			1						1								1	2
EZ-27C-9-11	LC	Posible Policromo	Posible Policromo	Posible Policromo			1									1					1	7
EZ-27C-9-11	LC	Saxche-Palmar	Leona Rojo/Naranja	Leona				1						1							1	11
EZ-27C-10-1	TC	Saxche-Palmar	Leona Rojo/Naranja	Leona			1							1							1	16
EZ-27C-10-1	TC	Posible Policromo	Posible Policromo	Posible Policromo			1							1							1	10

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27C-10-1	TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal			1							1							1	10
EZ-27C-10-1	TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Posible Zotz Rojo			1							1							1	5
EZ-27C-10-1	TC	Saxche-Palmar	Leona Rojo/Naranja Acanalado Inci	ND			1							1							1	8
EZ-27C-10-1	TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	4		4	1						8	1						9	175
EZ-27C-10-1	TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel amarillo	1									1							1	29
EZ-27C-10-1	TC	Erosionado	Erosionado	Erosionado	1	1	21					1		1						21	23	418
EZ-27C-10-1	TC	Azote	Azote Naranja	Azote			2						1							1	2	175
EZ-27C-10-1	TC	Tinaja	Tinaja Rojo	Tinaja			2									1				1	2	24
EZ-27C-10-1	TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			2									1				1	2	23
EZ-27C-10-2	TC	EnCanto	Encanto Estriado	Encanto		1	9					1	9								10	192
EZ-27C-10-2	TC	Erosionado	Erosionado	Erosionado		2	16	1				2		1						16	19	270
EZ-27C-10-2	TC	Cambio	Cambio Sin Engobe	Cambio		1	8					1	8								9	250
EZ-27C-10-2	TC	Color Diferenciado	Variegated	ND			2													2	2	50
EZ-27C-10-2	TC	Maquina	Maquina Café	Maquina			1						1								1	11
EZ-27C-10-2	TC	Tinaja	Tinaja Rojo	Tinaja			2						1							1	2	18
EZ-27C-10-3	TC	Erosionado	Erosionado	Erosionado	1	2	11					3	11								14	305
EZ-27C-10-3	TC	Encanto	Encanto Estriado	Encanto		2	23					2	23								25	926
EZ-27C-10-3	TC	Cambio	Cambio Sin Engobe	Cambio	3	1	26					4	26								30	600
EZ-27C-10-3	TC	Tinaja	Tinaja Rojo	Tinaja			7						3			2				2	7	90
EZ-27C-10-3	TC	Tinaja	Subin Rojo	Subin	1									1							1	30
EZ-27C-10-3	TC	Cambio	Manteca Impreso	Manteca			1						1								1	5
EZ-27C-10-3	TC	Infierno	Infierno Negro	Infierno	1	1	2					1	1	1		1					4	89
EZ-27C-10-3	TC	Maquina	Maquina Café	Maquina			2	1					1							2	3	27
EZ-27C-10-3	TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			2									1				1	2	11
EZ-27C-10-4	TC	Cambio	Cambio Sin Engobe	Cambio	2	1	15					3	15								18	350
EZ-27C-10-4	TC	Encanto	Encanto Estriado	Encanto		1	7					1	7								8	202
EZ-27C-10-4	TC	Erosionado	Erosionado	Erosionado	3	1	7					1		2			1			7	11	115
EZ-27C-10-4	TC	Azote	Azote Naranja	Azote			6									5				1	6	63
EZ-27C-10-4	TC	Tinaja	Tinaja Rojo	Tinaja			1													1	1	7
EZ-27C-10-4	TC	Erosionado	Erosionado Impreso	ND			1													1	1	11
EZ-27C-10-4	TC	Infierno	Infierno Negro	Infierno			1									1					1	5
EZ-27C-10-4	TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		3								1	3					4	56
EZ-27C-10-5	TC	Encanto	Encanto Estriado	Encanto		1	3					1	3								4	123
EZ-27C-10-5	TC	Erosionado	Erosionado	Erosionado	2		3		1			1			1	1				3	6	355
EZ-27C-10-5	TC	Cambio	Cambio Sin Engobe	Cambio	1	3	6					3	6		1						10	375
EZ-27C-10-5	TC	Infierno	Infierno Negro	Infierno			1	1					1							1	2	69
EZ-27C-10-5	TC	Maquina	Maquina Café	Maquina			3						1			1				1	3	125
EZ-27C-10-5	TC	tinaja	Tinaja Rojo	Tinaja			2						1			1					2	50
EZ-27C-10-5	TC	Azote	Azote Naranja	Azote			1	1					1			1					2	26
EZ-27C-10-5	TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado				1								1					1	55
EZ-27C-10-5	TC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1									1							1	55
EZ-27C-10-5	TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	2									1	1						2	25
EZ-27C-10-6	LC, TC?	Erosionado	Erosionado	Erosionado	13	2	70	10		3		7		3	3					85	98	1603
EZ-27C-10-6	LC, TC?	Encanto	Encanto Estriado	Encanto		8	93	3				8	96								104	2632
EZ-27C-10-6	LC, TC?	Encanto	Valente Estriado-Impreso	Valente			1						1								1	21
EZ-27C-10-6	LC, TC?	Cambio	Manteca Impreso	Manteca			1						1								1	20
EZ-27C-10-6	LC, TC?	Cambio	Cambio Sin Engobe	Cambio	17	14	74					29	74							2	105	3656
EZ-27C-10-6	LC, TC?	Color Diferenciado	Variegated	ND	1		6							1		1				5	7	140
EZ-27C-10-6	LC, TC?	Maquina	Maquina Café	Maquina			7						6							1	7	250
EZ-27C-10-6	LC, TC?	Infierno	Infierno Negro	Infierno			6						4			1				1	6	95
EZ-27C-10-6	LC, TC?	Tinaja	Tinaja Rojo	Tinaja	1	2	33					2	12			12				10	36	1126
EZ-27C-10-6	LC, TC?	Tinaja	Chaquiste Impreso	Chaquiste	1									1							1	25
EZ-27C-10-6	LC, TC?	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	4		4	2						5	1	2				2	10	275
EZ-27C-10-6	LC, TC?	Posible Policromo	Posible Policromo	Posible Policromo	4	1	6	4				1		2	2	6				4	15	150
EZ-27C-10-6	LC, TC?	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	7		5	4	1					10	2	4			1		17	636
EZ-27C-10-6	LC, TC?	Saxche-Palmar	Leona Rojo/Naranja	Leona	1		1	1						3							3	25
EZ-27C-10-6	LC, TC?	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori	2			1				1		1	1						3	120
EZ-27C-10-6		Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal	1									1							1	376
EZ-27C-10-6	LC, TC?	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel amarillo	6		7	5						10	2	5	1				18	272
EZ-27C-10-6	LC, TC?	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Posible Zotz Rojo	1									1							1	130

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27C-10-6	LC, TC?	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1	1						1		1					2	5
EZ-27C-10-8	LC	Erosionado	Erosionado	Erosionado	1		4	1						1						5	6	165
EZ-27C-10-8	LC	Encanto	Encanto Estriado	Encanto			2						2								2	29
EZ-27C-10-8	LC	Infierno	Infierno Negro	Infierno			1						1								1	2
EZ-27C-10-8	LC	Tinaja	Tinaja Rojo	Tinaja	1		2							1		2					3	10
EZ-27C-10-8	LC	Cambio	Cambio Sin Engobe	Cambio			6						6								6	110
EZ-27C-10-su	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1									1							1	18
EZ-27C-11-1	TC	Erosionado	Erosionado	Erosionado	1	2	7					2								8	10	142
EZ-27C-11-1	TC	Encanto	Encanto Estriado	Encanto			1						1								1	2
EZ-27C-11-1	TC	Erosionado	Erosionado Inciso	ND	1									1							1	17
EZ-27C-11-2	TC	Erosionado	Erosionado	Erosionado	6	2	41	3	2			3		5		2				44	54	865
EZ-27C-11-2		Cambio	Cambio Sin Engobe	Cambio	4	2	2					6	2								8	112
EZ-27C-11-2		Encanto	Encanto Estriado	Encanto		2	30					2	30								32	575
EZ-27C-11-2		Erosionado	Erosionado Inciso	ND			1									1					1	15
EZ-27C-11-2		Erosionado	Erosionado Gubiado-Inciso	ND	1									1							1	12
EZ-27C-11-2		Tinaja	Subin Rojo	Subin	2		6							2		1				5	8	132
EZ-27C-11-2		Azote	Azote Naranja	Azote			4	1												5	5	90
EZ-27C-11-2		Azote	Torres Inciso	Torres	1									1							1	24
EZ-27C-11-3	TC	Erosionado	Erosionado	Erosionado	9	9	70	2	3			10		7		5				71	93	1415
EZ-27C-11-3		Cambio	Cambio Sin Engobe	Cambio	4	1	17					5	17								22	306
EZ-27C-11-3		Encanto	Encanto Estriado	Encanto		3	39					3	39								42	670
EZ-27C-11-3		Erosionado	Erosionado impreso	Estilo Pantano ND		1						1									1	3
EZ-27C-11-3		Infierno	Infierno Negro	Infierno			5									3				2	5	45
EZ-27C-11-3		Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1										1						1	23
EZ-27C-11-3		Tinaja	Tinaja Rojo	Tinaja	1		2							1		1				1	3	61
EZ-27C-11-3		Azote	Azote Naranja	Azote	2	1	5					2		1		1				4	8	128
EZ-27C-11-3		Maquina	Maquina Café	Maquina			2													2	2	16
EZ-27C-11-3		Tinaja	Subin Rojo	Subin			7									5				2	7	247
EZ-27C-11-4	TC	Encanto	Encanto Estriado	Encanto	2	14	34					16	34								50	3395
EZ-27C-11-4	TC	Cambio	Cambio Sin Engobe	Cambio	16	24	30					40	30								70	3192
EZ-27C-11-4	TC	Tinaja	Tinaja Rojo	Tinaja	8		19	1				2	3	6		8				9	28	1764
EZ-27C-11-4	TC	Azote	Azote Naranja	Azote	1		1					1				1					2	254
EZ-27C-11-4	TC	Tinaja	Subin Rojo	Subin	1		1							1		1					2	165
EZ-27C-11-4	TC	Maquina	Maquina Café	Maquina	1	2	8					2	3	1		3				2	11	478
EZ-27C-11-4	TC	Maquina	Azucar Impreso inciso	Estilo Chinja ND	1									1							1	75
EZ-27C-11-4	TC	Color Diferenciado	Variegated	ND	2		4							2		2				2	6	313
EZ-27C-11-4	TC	Tinaja	Chinja Impreso	Chinja	2									2							2	300
EZ-27C-11-4	TC	Tinaja	Subin Rojo impreso	Estilo Chinja ND	1									1							1	160
EZ-27C-11-4	TC	Tinaja	Chinja Impreso Inciso	ND	1									1							1	208
EZ-27C-11-4	TC	Azote	Azote impreso Inciso	ND	1									1							1	100
EZ-27C-11-4	TC	Tinaja	Camarón Inciso	Camarón	2									2							2	150
EZ-27C-11-4	TC	Maquina	Canoa Inciso	Canoa	1									1							1	280
EZ-27C-11-4	TC	Color Diferenciado	Variegated Inciso	ND	1									1							1	105
EZ-27C-11-4	TC	Erosionado	Erosionado	Erosionado	2	6	83	16	1			6		2		1				99	108	3918
EZ-27C-11-4	TC	Erosionado	Erosionado Inciso	ND	1			1		1				2						1	3	220
EZ-27C-11-4	TC	Harina	Harina Crema	Harina		1						1									1	90
EZ-27C-11-4	TC	Infierno	Infierno Negro	Infierno	2		11	5						2		12				4	18	1008
EZ-27C-11-4	TC	Infierno	Tres Micos impreso	Estilo Chaquiste ND	1									1							1	100
EZ-27C-11-4	TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	3		4	2	2					5		6					11	1239
EZ-27C-11-5	LC, TC?	Infierno	Infierno Negro	Infierno			3									1				2	3	77
EZ-27C-11-5	LC, TC?	Tinaja	Tinaja Rojo	Tinaja			5	1								4				2	6	100
EZ-27C-11-5	LC, TC?	Maquina	Maquina Café	Maquina			1													1	1	5
EZ-27C-11-5	LC, TC?	Color Diferenciado	Variegated	ND	3			1								4					4	145
EZ-27C-11-5	LC, TC?	Erosionado	Erosionado	Erosionado	3	1	15		1			2		2		2				14	20	322
EZ-27C-11-5	LC, TC?	Encanto	Encanto Estriado	Encanto		1	9					1	9								10	404
EZ-27C-11-5	LC, TC?	Cambio	Cambio Sin Engobe	Cambio			2						2								2	12
EZ-27C-11-5	LC, TC?	Infierno	Carmelita inciso	Carmelita	1									1							1	83
EZ-27C-11-5	LC, TC?	Tinaja	Camarón Inciso	Camarón	1									1							1	145
EZ-27C-11-6	LC, TC?	Erosionado	Erosionado	Erosionado	2		5					1								6	7	92
EZ-27C-11-6	LC, TC?	Infierno	Infierno Negro	Infierno				1								1					1	60

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27C-11-6	LC, TC?	Encanto	Encanto Estriado	Encanto			1						1								1	10
EZ-27C-11-6	LC, TC?	Maquina	Maquina Café	Maquina			2									2					2	45
EZ-27C-11-6	LC, TC?	Color Diferenciado	Variegated	ND	1		2									3					3	43
EZ-27C-12-1	C	Erosionado	Erosionado	Erosionado			1													1	1	30
EZ-27C-12-1		Cambio	Cambio Sin Engobe	Cambio			2						2								2	27
EZ-27C-12-1		Encanto	Encanto Estriado	Encanto			2						2								2	48
EZ-27C-12-2	TC	Erosionado	Erosionado	Erosionado	1		10	2						1		1				11	13	520
EZ-27C-12-2		Cambio	Cambio Sin Engobe	Cambio	1							1									1	42
EZ-27C-12-2		Encanto	Encanto Estriado	Encanto			5						5								5	60
EZ-27C-12-2		Tinaja	Subin Rojo	Subin	1		4							1						4	5	110
EZ-27C-12-3	TC	Erosionado	Erosionado	Erosionado		1	15	1				1								16	17	509
EZ-27C-12-3	TC	Encanto	Encanto Estriado	Encanto			1						1								1	13
EZ-27C-12-3	TC	Tinaja	Tinaja Rojo	Tinaja			1													1	1	18
EZ-27C-13-1	TC	Erosionado	Erosionado	Erosionado		1	4						1							4	5	102
EZ-27C-13-1	TC	Encanto	Encanto Estriado	Encanto			4						4								4	75
EZ-27C-13-1	TC	Cambio	Cambio Sin Engobe	Cambio	2	1	1					2	1							1	4	53
EZ-27C-13-1	TC	Azote	Azote Naranja	Azote			2						1							1	2	26
EZ-27C-13-1	TC	Tinaja	Tinaja Rojo	Tinaja			4													4	4	35
EZ-27C-13-2	C	Erosionado	Erosionado	Erosionado			3	2												5	5	202
EZ-27C-13-2		Encanto	Encanto Estriado	Encanto			7						7								7	86
EZ-27C-13-2		Cambio	Cambio Sin Engobe	Cambio			3						3								3	35
EZ-27C-13-2		Tinaja	Subin Rojo	Subin	1									1							1	78
EZ-27C-13-2		Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			1									1					1	2
EZ-27C-13-2		Color Diferenciado	Variegated	ND			1									1					1	2
EZ-27C-13-3	LC	Tinaja	Tinaja Rojo	Tinaja	1	1	2					1	1							2	4	41
EZ-27C-13-3		Erosionado	Erosionado	Erosionado			1													1	1	3
EZ-27C-13-3		Erosionado	Erosionado Acanalado	ND			1													1	1	3
EZ-27C-13-3		Cambio	Cambio Sin Engobe	Cambio		1	1					1	1								2	35
EZ-27C-13-3		Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			2	1								2				1	3	52
EZ-27C-13-3		Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1									1					1	2
EZ-27C-13-3		Encanto	Encanto Estriado	Encanto			4						4								4	48
EZ-27C-14-1	C	Erosionado	Erosionado	Erosionado	1	1	11	1				1			1					12	14	160
EZ-27C-14-1		Cambio	Cambio Sin Engobe	Cambio	1		7					1	7								8	120
EZ-27C-14-1		Encanto	Encanto Estriado	Encanto		1	8					1	8								9	275
EZ-27C-14-1		Azote	Azote Naranja	Azote			3			1		1								3	4	70
EZ-27C-14-1		Tinaja	Subin Rojo	Subin			4									4					4	68
EZ-27C-14-2	TC	Encanto	Encanto Estriado	Encanto		3	38					3	38								41	1800
EZ-27C-14-2		Erosionado	Erosionado	Erosionado	2	4	26	3	1			5		1		1				29	36	1400
EZ-27C-14-2		cambio	Cambio Sin Engobe	Cambio	3	4	25					7	25								32	785
EZ-27C-14-2		Azote	Azote Naranja	Azote		1	7					1	2							5	8	123
EZ-27C-14-2		Maquina	Maquina Café	Maquina	1	1						2									2	130
EZ-27C-14-2		Infierno	Infierno Negro	Infierno			4									4					4	82
EZ-27C-14-2		Color Diferenciado	Variegated	ND			3	1								1				3	4	263
EZ-27C-14-2		Infierno	Carmelita Inciso	Carmelita	1									1							1	83
EZ-27C-14-2		Tinaja	Subin Rojo	Subin	1	1	6					1	2	1		2				2	8	304
EZ-27C-14-2		Tinaja	Tinaja Rojo	Tinaja	3		21						6	2	1	7				8	24	1820
EZ-27C-14-2		Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	4		3		1					2	2	3				1	8	263
EZ-27C-14-2		Tinaja	Tigrán Estriado	Tigrán			1							1							1	125
EZ-27C-14-3	TC	Erosionado	Erosionado	Erosionado	2	1	16	3				2			1					19	22	900
EZ-27C-14-3		Cambio	Cambio Sin Engobe	Cambio	4		14					4	14								18	620
EZ-27C-14-3		Encanto	Encanto Estriado	Encanto		2	27					2	27								29	840
EZ-27C-14-3		Tinaja	Subin Rojo	Subin		1	1					1								1	2	51
EZ-27C-14-3		Tinaja	Tinaja Rojo	Tinaja			14						1			8				5	14	605
EZ-27C-14-3		Tinaja	Camarón Inciso	Camarón	1									1							1	35
EZ-27C-14-3		Maquina	Maquina Café	Maquina			1													1	1	74
EZ-27C-14-3		Color Diferenciado	Variegated Inciso	ND	1									1							1	143
EZ-27C-14-3		Color Diferenciado	Variegated	ND	2		3	1						2		3				1	6	240
EZ-27C-14-3		Infierno	Infierno Negro	Infierno	1		4							4						1	5	100
EZ-27C-14-3		Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2		3	3						2		6					8	312
EZ-27C-14-3		Azote	Azote Naranja	Azote	1		11	2				1	3			5				5	14	840

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27C-15-1	C	Erosionado	Erosionado	Erosionado			2													2	2	2
EZ-27C-15-1		Encanto	Encanto Estriado	Encanto		1						1									1	7
EZ-27C-15-1		Tinaja	Tinaja Rojo	Tinaja			1						1								1	3
EZ-27C-15-1		Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			1													1	1	1
EZ-27C-15-2	C	Encanto	Encanto Estriado	Encanto			1						1								1	15
EZ-27C-15-2		Cambio	Cambio Sin Engobe	Cambio	1							1									1	13
EZ-27C-15-2		Erosionado	Erosionado	Erosionado			2													2	2	7
EZ-27C-15-2		Tinaja	Tinaja Rojo	Tinaja			1													1	1	7
EZ-27C-16-1	C	Erosionado	Erosionado	Erosionado	1		2							1						2	3	95
EZ-27C-16-1		Encanto	Encanto Estriado	Encanto			2						2								2	18
EZ-27C-16-2	C	Erosionado	Erosionado	Erosionado	2		2	2				1		1						4	6	209
EZ-27C-16-2		Encanto	Encanto Estriado	Encanto			1						1								1	7
EZ-27D-1-1	LC-TC	Erosionado	Erosionado	Erosionado	2	2	15					3		1						15	19	260
EZ-27D-1-1	LC-TC	Erosionado	Erosionado Acanalado	ND			1													1	1	8
EZ-27D-1-1	LC-TC	Cambio	Cambio Sin Engobe	Cambio			4						4								4	50
EZ-27D-1-1	LC-TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado				1								1					1	36
EZ-27D-1-1	LC-TC	Tinaja	Subin rojo	Subin	1															1	1	8
EZ-27D-1-1	LC-TC	Tinaja	Chaquiste Impreso	Chaquiste	1									1							1	94
EZ-27D-1-1	LC-TC	Tinaja	Tinaja Rojo	Tinaja			3													3	3	24
EZ-27D-1-2	LC-TC	Erosionado	Erosionado	Erosionado	2	2	40	1				3		1		1				40	45	422
EZ-27D-1-2	LC-TC	Cambio	Cambio Sin Engobe	Cambio			3						3								3	60
EZ-27D-1-2	LC-TC	Encanto	Encanto Estriado	Encanto			9						9								9	275
EZ-27D-1-2	LC-TC	Tinaja	Tinaja Rojo	Tinaja	2		10						6	2		4					12	147
EZ-27D-1-2	LC-TC	Maquina	Maquina café	Maquina			3									1				2	3	56
EZ-27D-1-2	LC-TC	Infierno	Carmelita Inciso	Carmelita	1									1							1	5
EZ-27D-1-2	LC-TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1									1							1	13
EZ-27D-1-2	LC-TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			2							1						1	2	30
EZ-27D-1-2	LC-TC	Erosionado	Erosionado Perforado	ND						1										1	1	5
EZ-27D-1-3	LC-TC	Azote	Salada Acanalado	Salada			2						2								2	10
EZ-27D-1-3	LC-TC	Harina	Harina Crema	Harina			1						1								1	18
EZ-27D-1-3	LC-TC	Infierno	Infierno Negro	Infierno	1		1									2					2	7
EZ-27D-1-3	LC-TC	Infierno	Carmelita Inciso	Carmelita			1						1								1	4
EZ-27D-1-3	LC-TC	Zacatal	Chinos Negro/Crema	Chinos			1						1								1	10
EZ-27D-1-3	LC-TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	3		4	1						3		2				3	8	50
EZ-27D-1-3	LC-TC	Posible Policromo	Posible Policromo	Posible Policromo			12	1					3	1	4	5					13	95
EZ-27D-1-3	LC-TC	Posible Policromo	Posible Policromo acanalado	ND			1							1							1	1
EZ-27D-1-3	LC-TC	Color Diferenciado	Variegated	ND			4						3			1					4	210
EZ-27D-1-3	LC-TC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	3		10						3	4	1	3				2	13	300
EZ-27D-1-3	LC-TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal			1						1								1	70
EZ-27D-1-3	LC-TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	3		9	3					1	5	1	5				3	15	255
EZ-27D-1-3	LC-TC	Erosionado	Erosionado	Erosionado	1	1	36	3	1			1			1					40	42	805
EZ-27D-1-3	LC-TC	Erosionado	Erosionado modelado	ND			1													1	1	30
EZ-27D-1-3	LC-TC	Encanto	Encanto Estriado	Encanto			44						44								44	688
EZ-27D-1-3	LC-TC	Cambio	Cambio Sin Engobe	Cambio	2	3	74					5	74								79	1146
EZ-27D-1-3	LC-TC	Tinaja	Tinaja Rojo	Tinaja	5	1	52	3				2	42	5		12					61	1290
EZ-27D-1-3	LC-TC	Tinaja	Chinja Impreso Inciso	ND	1									1							1	82
EZ-27D-1-3	LC-TC	Tinaja	Camarón Inciso	Camarón	1									1							1	152
EZ-27D-1-4	LC-TC	Harina	Harina Crema	Harina			4						2							2	4	30
EZ-27D-1-4	LC-TC	Maquina	Maquina café	Maquina			13						6			7					13	227
EZ-27D-1-4	LC-TC	Maquina	Azucar impreso	Estilo Chinja ND	1									1							1	27
EZ-27D-1-4	LC-TC	Color Diferenciado	Variegated	ND		1	4		1			1	3			2					6	107
EZ-27D-1-4	LC-TC	Infierno	Infierno Negro	Infierno	2		17	4					11			11				1	23	450
EZ-27D-1-4	LC-TC	Infierno	Chilar Acanalado	Chilar			1									1					1	1
EZ-27D-1-4	LC-TC	Negro rosada	Negro rosada	ND			2						1			1					2	5
EZ-27D-1-4	LC-TC	Tinaja	Tinaja Rojo	Tinaja	9	4	136	3				6	88	7		51					152	3052
EZ-27D-1-4	LC-TC	Tinaja	Chinja Impreso	Chinja	2		1							2						1	3	40
EZ-27D-1-4	LC-TC	Tinaja	Camarón Inciso	Camarón	2									2							2	100
EZ-27D-1-4	LC-TC	Maquina	Canoa Inciso	Canoa	1									1							1	50
EZ-27D-1-4	LC-TC	Azote	Torres inciso	Torres			1							1							1	25
EZ-27D-1-4	LC-TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel Amarillo			1								1						1	15

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27D-1-4	LC-TC	Zacatal	Zacatal Crema Policromo	Miel Amarillo			3							3							3	18
EZ-27D-1-4	LC-TC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	4		4							7		1					8	125
EZ-27D-1-4	LC-TC	Policromo ND	Policromo ND	Policromo ND	2		2							4							4	80
EZ-27D-1-4	LC-TC	Zacatal	Paixban Ante Policromo	Paixban	3		4							6	1						7	55
EZ-27D-1-4	LC-TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal	2		5							3	1	3					7	170
EZ-27D-1-4	LC-TC	Posible Policromo	Posible Policromo	Posible Policromo	2		19	2	1				3	2		19					24	200
EZ-27D-1-4	LC-TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		14	3							5					13	18	175
EZ-27D-1-4	LC-TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	11		32	1		1			10	9	2	22				2	45	624
EZ-27D-1-4	LC-TC	Erosionado	Erosionado	Erosionado	2	4	73	4				6	77								83	1572
EZ-27D-1-4	LC-TC	Cambio	Cambio Sin Engobe	Cambio	25	22	209					47	209								256	7834
EZ-27D-1-4	LC-TC	Encanto	Encanto Estriado	Encanto	1	15	125	1				16	126								142	4142
EZ-27D-2-1	LC	Encanto	Encanto Estriado	Encanto			2						2								2	10
EZ-27D-2-1	LC	Tinaja	Tinaja Rojo	Tinaja			1														1	5
EZ-27D-2-1	LC	Erosionado	Erosionado	Erosionado			15														15	200
EZ-27D-2-2	LC	Encanto	Encanto Estriado	Encanto			5						5								5	75
EZ-27D-2-2	LC	Cambio	Cambio Sin Engobe	Cambio			4	1					5								5	60
EZ-27D-2-2	LC	Tinaja	Tinaja Rojo	Tinaja			2									1				1	2	18
EZ-27D-2-2	LC	Erosionado	Erosionado	Erosionado	2		18	1								1				20	21	330
EZ-27D-2-3	LC	Color Diferenciado	Variegated	ND	1									1							1	16
EZ-27D-2-3	LC	Harina	Harina Crema	Harina			1						1								1	1
EZ-27D-2-3	LC	Maquina	maquina café	maquina		1						1									1	5
EZ-27D-2-3	LC	Infierno	Infierno Negro	Infierno			5						4			1					5	20
EZ-27D-2-3	LC	Tinaja	Camarón Inciso	Camarón			1						1								1	2
EZ-27D-2-3	LC	Posible Policromo	Posible Policromo	Posible Policromo		1	6		1			1				4				3	8	30
EZ-27D-2-3	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			2	1	1						1	1				2	4	20
EZ-27D-2-3	LC	Tinaja	Tinaja Rojo	Tinaja	1	1	14					2	10			4					16	205
EZ-27D-2-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Posible Miel Amarillo			1							1							1	1
EZ-27D-2-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	3		4	1						2	1	5					8	50
EZ-27D-2-3	LC	Saxche-Palmar	Chantuori Negro/Naranja Acanalad	ND			1						1								1	25
EZ-27D-2-3	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1		1							1		1					2	15
EZ-27D-2-3	LC	Encanto	Encanto Estriado	Encanto		1	28					1	28								29	420
EZ-27D-2-3	LC	Cambio	Cambio Sin Engobe	Cambio	2	1	38					3	38								41	609
EZ-27D-2-3	LC	Erosionado	Erosionado	Erosionado	7	4	54	2	1			6		5	1	2				54	68	663
EZ-27D-2-5	LC	Erosionado	Erosionado	Erosionado			16			1										17	17	90
EZ-27D-2-5	LC	Tinaja	Tinaja Rojo	Tinaja	1		2							1						2	3	10
EZ-27D-2-5	LC	Erosionado	Erosionado Inciso	ND	1											1					1	3
EZ-27D-2-6	ND	Erosionado	Erosionado	Erosionado			6													6	6	40
EZ-27D-2-6	ND	Balanza	Balanza Negro	Balanza			1									1					1	5
EZ-27D-3-1	LC-TC	Color Diferenciado	Variegated	ND	2		1							1						2	3	70
EZ-27D-3-1	LC-TC	Encanto	Encanto Estriado	Encanto		1	8					1	8								9	170
EZ-27D-3-1	LC-TC	Erosionado	Erosionado	Erosionado	3	4	42	1				5		2		1				42	50	575
EZ-27D-3-1	LC-TC	Infierno	Infierno Negro	Infierno			5									1				4	5	18
EZ-27D-3-1	LC-TC	Tinaja	Chaquiste Impreso	Chaquiste	1									1							1	15
EZ-27D-3-1	LC-TC	Tinaja	Subin Rojo	Subin			6									2				4	6	30
EZ-27D-3-1	LC-TC	Tinaja	Tinaja Rojo	Tinaja	1		1							1						1	2	70
EZ-27D-3-1	LC-TC	Posible Policromo	Posible Policromo	Posible Policromo			1									1					1	1
EZ-27D-3-1	LC-TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			1													1	1	4
EZ-27D-3-1	LC-TC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1							1							1	5
EZ-27D-3-2	LC-TC	Tinaja	Tinaja Rojo	Tinaja			22						2			5				15	22	782
EZ-27D-3-2	LC-TC	Infierno	Infierno Negro	Infierno			2	1							3						3	82
EZ-27D-3-2	LC-TC	Encanto	Encanto Estriado	Encanto			20						20								20	426
EZ-27D-3-2	LC-TC	Cambio	Cambio Sin Engobe	Cambio	3		8					3	8								11	335
EZ-27D-3-2	LC-TC	Erosionado	Erosionado	Erosionado			26	2	1							1				28	29	511
EZ-27D-3-2	LC-TC	Saxche-Palmar	Leona rojo/Naranja	Leona				2								2					2	23
EZ-27D-3-2	LC-TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1		3	1						2	1					2	5	60
EZ-27D-3-2	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	3		2							3						2	5	44
EZ-27D-3-3	LC	Encanto	Encanto Estriado	Encanto			26						26								26	570
EZ-27D-3-3	LC	Cambio	Cambio Sin Engobe	Cambio	1	2	8					3	8								11	302
EZ-27D-3-3	LC	Erosionado	Erosionado	Erosionado		1	6	1					1							7	8	145
EZ-27D-3-3	LC	Infierno	Infierno Negro	Infierno	1		1	1								1				2	3	50

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27D-3-3	LC	Maquina	Maquina café	Maquina			1													1	1	3
EZ-27D-3-3	LC	Tinaja	Tinaja Rojo	Tinaja			3									1				2	3	62
EZ-27D-3-3	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado				2						2							2	46
EZ-27D-3-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			1							1							1	7
EZ-27D-3-3	LC	Policromo ND	Policromo ND	Policromo ND			2	1								2				1	3	162
EZ-27D-3-3	LC	Cambio	Cambio Sin Engobe	Cambio	1		4	1				1	5								6	230
EZ-27D-3-3	LC	Erosionado	Erosionado	Erosionado	1		6	1				1	7								8	170
EZ-27D-3-3	LC	Encanto	Encanto Estriado	Encanto			15						15								15	392
EZ-27D-3-3	LC	Tinaja	Tinaja Rojo	Tinaja			4								3					1	4	32
EZ-27D-3-3	LC	Azote	Azote Naranja	Azote			3													3	3	50
EZ-27D-3-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1		1							1		1					2	25
EZ-27D-3-3	LC	Cambio	Cambio Sin Engobe	Cambio	1	1	8					2	8								10	495
EZ-27D-3-3	LC	Encanto	Encanto Estriado	Encanto		2	14					2	14								16	635
EZ-27D-3-3	LC	Erosionado	Erosionado	Erosionado	1		22					1			1					21	23	437
EZ-27D-3-3	LC	Infierno	Carmelita Inciso	Carmelita			1							1							1	3
EZ-27D-3-3	LC	Posible Policromo	Posible Policromo	Posible Policromo			1									1					1	8
EZ-27D-3-3	LC	Maquina	Maquina café	Maquina			1						1								1	8
EZ-27D-3-3	LC	Zacatal	Zacatal Crema Inciso	ND	1									1							1	7
EZ-27D-3-3	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2		1							2	1						3	25
EZ-27D-3-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal	1									1							1	8
EZ-27D-3-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	2		1	1						3	1						4	70
EZ-27D-3-3	LC	Saxche-Palmar	Leona rojo/Naranja	Leona			1							1							1	32
EZ-27D-3-3	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori			1	1							1					1	2	18
EZ-27D-3-3	LC	Azote	Azote Naranja	Azote			1							1							1	20
EZ-27D-3-3	LC	Azote	Torres inciso	Torres	1									1							1	205
EZ-27D-3-3	LC	Tinaja	Tinaja Rojo	Tinaja	3		15					1	11	2		4					18	690
EZ-27D-3-3	LC	Cambio	Cambio Sin Engobe	Cambio	5	4	38	2				9	40								49	1680
EZ-27D-3-3	LC	Encanto	Encanto Estriado	Encanto	1	4	34	1				5	35								40	1460
EZ-27D-3-3	LC	Erosionado	Erosionado	Erosionado			9	2												11	11	219
EZ-27D-3-3	LC	Maquina	Maquina café	Maquina			4						1			3					4	43
EZ-27D-3-3	LC	Infierno	Infierno Negro	Infierno			2						1			1					2	15
EZ-27D-3-3	LC	Harina	Harina Crema	Harina			1													1	1	31
EZ-27D-3-3	LC	Tinaja	Subin Rojo	Subin			2													2	2	45
EZ-27D-3-3	LC	Tinaja	Chaquiste Impreso	Chaquiste	1									1							1	49
EZ-27D-3-3	LC	Tinaja	Tinaja Rojo	Tinaja	3		23					1	11	2		12					26	912
EZ-27D-3-3	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1		3							4							4	75
EZ-27D-3-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	3		1							2		1				1	4	62
EZ-27D-3-3	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori	1									1							1	6
EZ-27D-3-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal			2						1			1					2	17
EZ-27D-3-3	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2									2							2	22
EZ-27D-3-3	LC	Posible Policromo	Posible Policromo	Posible Policromo			4	1					2		1	2					5	66
EZ-27D-3-3	LC	Cambio	Cambio Sin Engobe	Cambio	1	4	38					5	38								43	2143
EZ-27D-3-3	LC	Encanto	Encanto Estriado	Encanto	1	3	21					4	21								25	1086
EZ-27D-3-3	LC	Erosionado	Erosionado	Erosionado	1	1	7	1				2								8	10	417
EZ-27D-3-3	LC	Harina	Harina Impreso	Estilo Chinja ND	1									1							1	39
EZ-27D-3-3	LC	Maquina	Maquina café	Maquina			4						2			1				1	4	63
EZ-27D-3-3	LC	Infierno	Carmelita Inciso	Carmelita	1									1							1	5
EZ-27D-3-3	LC	Infierno	Infierno Negro	Infierno	1									1							1	7
EZ-27D-3-3	LC	Tinaja	Camarón Inciso	Corozal	1															1	1	9
EZ-27D-3-3	LC	Tinaja	Chaquiste Impreso	Chaquiste	1									1							1	13
EZ-27D-3-3	LC	Tinaja	Tinaja Rojo	Tinaja	4	1	16	2				2	6	3		12					23	1036
EZ-27D-3-3	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori		1						1									1	25
EZ-27D-3-3	LC	Posible Policromo	Posible Policromo	Posible Policromo	1		2						1	1		1					3	23
EZ-27D-3-3	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			1	1							1	1					2	33
EZ-27D-3-3	LC	Saxche-Palmar	Chantuori Negro/Naranja Acanalad	ND	1									1							1	50
EZ-27D-3-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Resist				1					1								1	18
EZ-27D-3-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	2		3	3					2	2	1	3					8	108
EZ-27D-3-3	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1		1	1						3							3	94
EZ-27D-3-3	LC	Infierno	Infierno Negro	Infierno	1		1						1	1							2	15
EZ-27D-3-3	LC	Maquina	Maquina café	Maquina			4						3			1					4	81

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27D-3-3	LC	Tinaja	Chinja Impreso	Chinja	1									1							1	28
EZ-27D-3-3	LC	Tinaja	Chaquiste Impreso	Chaquiste		1								1							1	3
EZ-27D-3-3	LC	Erosionado	Erosionado	Erosionado			4													4	4	88
EZ-27D-3-3	LC	Tinaja	Tinaja Rojo	Tinaja	1		18						11	1		7					19	283
EZ-27D-3-3	LC	Encanto	Encanto Estriado	Encanto		4	14					4	14								18	685
EZ-27D-3-3	LC	Cambio	Cambio Sin Engobe	Cambio	8	2	30					10	30								40	2433
EZ-27D-3-3	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		1							1						1	2	18
EZ-27D-3-3	LC	Posible Policromo	Posible Policromo	Posible Policromo	1			1						1		1					2	25
EZ-27D-3-3	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1		1							2							2	40
EZ-27D-3-3	LC	Policromo ND	Policromo ND	Policromo ND	1		1							2							2	20
EZ-27D-3-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	2		1							2	1						3	350
EZ-27D-3-3	LC	Naranja ND	Naranja ND	Naranja ND	1							1									1	6
EZ-27D-3-3	LC	Infierno	Infierno Negro	Infierno			2									1				1	2	27
EZ-27D-3-3	LC	Color Diferenciado	Variegated	ND			1						1								1	20
EZ-27D-3-3	LC	Maquina	Maquina café	Maquina			2						1							1	2	103
EZ-27D-3-3	LC	Tinaja	Tinaja Rojo	Tinaja		3							1			2					3	77
EZ-27D-3-3	LC	Aguila	Aguila Naranja	Aguila	1		1						1	1							2	61
EZ-27D-3-3	LC	Balanza	Balanza Negro	Balanza			1							1							1	10
EZ-27D-3-3	LC	ERosionado	Erosionado	Erosionado	2		11		1					1		1				12	14	280
EZ-27D-3-3	LC	Cambio	Cambio Sin Engobe	Cambio	3	1	15	1				4	16								20	694
EZ-27D-3-3	LC	Encanto	Encanto Estriado	Encanto		2	11					2	11								13	640
EZ-27D-3-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			5						1			4					5	25
EZ-27D-3-3	LC	Yaloche	Yaloche Crema Policromo	Yaloche	1															1	1	90
EZ-27D-3-3	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			1													1	1	6
EZ-27D-3-3	LC	Policromo ND	Policromo ND	Policromo ND			1							1							1	4
EZ-27D-3-3	LC	Erosionado	Erosionado	Erosionado			3	1		1										5	5	106
EZ-27D-3-3	LC	Encanto	Encanto Estriado	Encanto			12						12								12	280
EZ-27D-3-3	LC	Cambio	Cambio Sin Engobe	Cambio	1		12					1	12								13	382
EZ-27D-3-3	LC	Naranja ND	Naranja ND	Naranja ND			2						2								2	68
EZ-27D-3-3	LC	Tinaja	Tinaja Rojo	Tinaja			1									1					1	8
EZ-27D-3-3	LC	Infierno	Infierno Negro	Infierno			1	1					2								2	25
EZ-27D-3-3	LC	Maquina	Maquina café	Maquina			2													2	2	60
EZ-27D-3-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	4		1	2						3	1	3					7	225
EZ-27D-3-3	LC	Saxche-Palmar	Chantuori Negro/Naranja Acanalad	ND	1									1							1	6
EZ-27D-3-4	LC	Encanto	Encanto Estriado	Encanto		1	1					1	1								2	52
EZ-27D-3-4	LC	Cambio	Cambio Sin Engobe	Cambio			2						2								2	23
EZ-27D-3-4	LC	Policromo ND	Policromo ND	Policromo ND	1									1							1	4
EZ-27D-3-4	LC	Posible Policromo	Posible Policromo	Posible Policromo			1							1							1	8
EZ-27D-3-4	LC	Erosionado	Erosionado	Erosionado			1									1					1	65
EZ-27D-4-1	LC-TC	Erosionado	Erosionado	Erosionado	1	2	3					2								4	6	168
EZ-27D-4-1	LC-TC	Maquina	Maquina café	Maquina			1													1	1	20
EZ-27D-4-1	LC-TC	Encanto	Encanto Estriado	Encanto			2						2								2	16
EZ-27D-4-2	LC-TC	Erosionado	Erosionado	Erosionado			8													8	8	98
EZ-27D-4-2	LC-TC	Tinaja	Tinaja Rojo	Tinaja			2													2	2	42
EZ-27D-4-2	LC-TC	Encanto	Encanto Estriado	Encanto			3						3								3	25
EZ-27D-4-3	LC-TC	Encanto	Encanto Estriado	Encanto			3						3								3	49
EZ-27D-4-3	LC-TC	Erosionado	Erosionado	Erosionado			6													6	6	86
EZ-27D-4-3	LC-TC	Cambio	Cambio Sin Engobe	Cambio	1	1	1					2	1								3	48
EZ-27D-4-3	LC-TC	Tinaja	Tinaja Rojo	Tinaja			4						1							3	4	120
EZ-27D-4-3	LC-TC	Tinaja	Camarón Inciso	Camarón	1									1							1	62
EZ-27D-4-3	LC-TC	Erosionado	Erosionado	Erosionado	1		15	2	1					2		2				15	19	334
EZ-27D-4-3	LC-TC	Cambio	Cambio Sin Engobe	Cambio	1		12					1	12								13	445
EZ-27D-4-3	LC-TC	Encanto	Encanto Estriado	Encanto			17						17								17	207
EZ-27D-4-3	LC-TC	Posible Policromo	Posible Policromo	Posible Policromo			1	1												2	2	142
EZ-27D-4-3	LC-TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1									1							1	8
EZ-27D-4-3	LC-TC	Tinaja	Tinaja Rojo	Tinaja	1		9						1	1		3				5	10	252
EZ-27D-4-3	LC-TC	Azote	Azote Naranja	Azote			8									2				6	8	130
EZ-27D-4-3	LC-TC	Tinaja	Chaquiste Impreso	Chaquiste	1									1							1	108
EZ-27D-4-3	LC-TC	Erosionado	Erosionado	Erosionado			22	2												24	24	584
EZ-27D-4-3	LC-TC	Cambio	Cambio Sin Engobe	Cambio	3	2	13					5	13								18	650

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27D-4-3	LC-TC	Encanto	Encanto Estriado	Encanto		3	29	1				3	30								33	868
EZ-27D-4-3	LC-TC	Maquina	Maquina café	Maquina			1						1								1	7
EZ-27D-4-3	LC-TC	Harina	Harina Crema	Harina			2						2								2	30
EZ-27D-4-3	LC-TC	Infierno	Chilar Acanalado	Chilar			1							1							1	5
EZ-27D-4-3	LC-TC	Color Diferenciado	Variegated	ND			1							1							1	94
EZ-27D-4-3	LC-TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2		4		1					3		3				1	7	122
EZ-27D-4-3	LC-TC	Azote	Azote Naranja	Azote			5									2				3	5	80
EZ-27D-4-3	LC-TC	Tinaja	Tinaja Rojo	Tinaja	1		8						3			5				1	9	175
EZ-27D-4-3	LC-TC	Tinaja	Chinja Impreso	Chinja	1									1							1	51
EZ-27D-4-4	LC-TC	Erosionado	Erosionado	Erosionado	1		16	3						1						19	20	425
EZ-27D-4-4	LC	Cambio	Cambio Sin Engobe	Cambio	3	3	23	1				6	24								30	787
EZ-27D-4-4	LC	Encanto	Encanto Estriado	Encanto	2		41						2	41							43	853
EZ-27D-4-4	LC	Tinaja	Tinaja Rojo	Tinaja	2		15	2					8	2		7				2	19	435
EZ-27D-4-4	LC	Tinaja	Camarón Inciso	Camarón	1									1							1	57
EZ-27D-4-4	LC	Maquina	Maquina café	Maquina			2													2	2	22
EZ-27D-4-4	LC	Tinaja	Subin Rojo	Subin			1							1							1	45
EZ-27D-4-4	LC	Azote	Azote Naranja	Azote	1		3							1						3	4	65
EZ-27D-4-4	LC	Infierno	Infierno Negro	Infierno			1													1	1	8
EZ-27D-4-4	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1		2	1							1	3					4	92
EZ-27D-4-4	LC	Posible Policromo	Posible Policromo	Posible Policromo			1	1								1				1	2	13
EZ-27D-4-4	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	6		2	2					1	4	2	2				1	10	420
EZ-27D-4-5	LC-TC	cambio	Cambio Sin Engobe	Cambio	6		26					6	26								32	1133
EZ-27D-4-5	LC-TC	Encanto	Encanto Estriado	Encanto		6	21	2				6	23								29	895
EZ-27D-4-5	LC-TC	Erosionado	Erosionado	Erosionado		3	18					3								18	21	335
EZ-27D-4-5	LC-TC	Tinaja	Tinaja Rojo	Tinaja	4		21	1					6	4		10				6	26	571
EZ-27D-4-5	LC-TC	Tinaja	Camarón Inciso	Camarón	1									1							1	52
EZ-27D-4-5	LC-TC	Tinaja	Chinja Impreso	Chinja	1									1							1	75
EZ-27D-4-5	LC-TC	Azote	Azote Naranja	Azote			1													1	1	25
EZ-27D-4-5	LC-TC	Harina	Harina Crema	Harina			2													2	2	50
EZ-27D-4-5	LC-TC	Maquina	Maquina café	Maquina	2		3						2	2		1					5	208
EZ-27D-4-5	LC-TC	Infierno	Infierno Negro	Infierno			1									1					1	48
EZ-27D-4-5	LC-TC	Tinaja	Subin Rojo	Subin			1						1								1	8
EZ-27D-4-5	LC-TC	Azote	Salada Acanalado	Salada			1							1							1	5
EZ-27D-4-5	LC-TC	Posible Policromo	Posible Policromo	Posible Policromo			2								1	1					2	20
EZ-27D-4-5	LC-TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2									1	1						2	37
EZ-27D-4-5	LC-TC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	2		3	3					1	3		4					8	370
EZ-27D-4-5	LC	Cambio	Cambio Sin Engobe	Cambio	9	17	53					26	53								79	3233
EZ-27D-4-5	LC	Encanto	Encanto Estriado	Encanto		9	35					9	35								44	1443
EZ-27D-4-5	LC	Erosionado	Erosionado	Erosionado	1	1	26	2				2				2				26	30	663
EZ-27D-4-5	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2		4	2						2						6	8	205
EZ-27D-4-5	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	3		4	2						1		8					9	255
EZ-27D-4-5	LC	Saxche-Palmar	Leona rojo/Naranja	Leona			1	1								2					2	30
EZ-27D-4-5	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori			2						1			1					2	10
EZ-27D-4-5	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1							1							1	7
EZ-27D-4-5	LC	Posible Policromo	Posible Policromo	Posible Policromo			1	2								2				1	3	60
EZ-27D-4-5	LC	Azote	Azote Naranja	Azote	1		8				1		6							2	9	155
EZ-27D-4-5	LC	Tinaja	Tinaja Rojo	Tinaja	3	1	26	4					13	4		10				7	34	801
EZ-27D-4-5	LC	Tinaja	Chinja Impreso	Chinja	1									1							1	37
EZ-27D-4-5	LC	Maquina	Maquina café	Maquina	1	1	5	2					7	1		1					9	195
EZ-27D-4-5	LC	Maquina	Azucar impreso	Azucar	1									1							1	45
EZ-27D-4-5	LC	Cambio	Cambio Sin Engobe	Cambio		3	30					3	30								33	821
EZ-27D-4-5	LC	Erosionado	Erosionado	Erosionado	1		8	3	1							1				12	13	220
EZ-27D-4-5	LC	Encanto	Encanto Estriado	Encanto		2	18					2	18								20	642
EZ-27D-4-5	LC	Maquina	Maquina café	Maquina	1		5						2	1		1				2	6	208
EZ-27D-4-5	LC	Infierno	Infierno Negro	Infierno			5	1					1			4				1	6	82
EZ-27D-4-5	LC	Azote	Azote Naranja	Azote			5						4			1					5	38
EZ-27D-4-5	LC	Tinaja	Tinaja Rojo	Tinaja	3		14	1					6	3		7				2	18	515
EZ-27D-4-5	LC	Tinaja	Chaquiste Impreso	Chaquiste			1							1							1	30
EZ-27D-4-5	LC	Zacatal	Zacatal Crema Policromo	Miel Amarillo			1							1							1	5
EZ-27D-4-5	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1									1							1	6

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27D-4-5	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	3		1							2						2	4	40
EZ-27D-4-5	LC	Posible Policromo	Posible Policromo	Posible Policromo			4	1					1			3				1	5	75
EZ-27D-4-5	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori	1		1							1		1					2	22
EZ-27D-4-5	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal	1									1							1	15
EZ-27D-4-5	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	4		3							3	2	2					7	85
EZ-27D-4-5	LC	Infierno	Carmelita Inciso	Carmelita			1						1								1	9
EZ-27D-4-5	LC	Tinaja	Subin Rojo	Subin	1	1	1					1								2	3	33
EZ-27D-4-5	LC	Erosionado	Erosionado	Erosionado			12	3												15	15	535
EZ-27D-4-5	LC	Cambio	Cambio Sin Engobe	Cambio	9	2	47					11	47								58	1630
EZ-27D-4-5	LC	Maquina	Maquina café	Maquina			3						2			1					3	40
EZ-27D-4-5	LC	Azote	Azote Naranja	Azote			2						1							1	2	18
EZ-27D-4-5	LC	Tinaja	Tinaja Rojo	Tinaja	1	1	21					1	10	1		6				5	23	573
EZ-27D-4-5	LC	Encanto	Encanto Estriado	Encanto		2	38						40								40	1037
EZ-27D-4-5	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			1	1												2	2	30
EZ-27D-4-5	LC	Posible Policromo	Posible Policromo	Posible Policromo			1									1					1	15
EZ-27D-4-5	LC	Saxche-Palmar	Leona rojo/Naranja	Leona			2									1				1	2	9
EZ-27D-4-5	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori			1	1					1			1					2	10
EZ-27D-4-5	LC	Saxche-Palmar	Chantuori Negro/Naranja Acanalad	ND	1									1							1	5
EZ-27D-4-5	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1		1							1		1					2	4
EZ-27D-4-5	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	2		3							4	1						5	71
EZ-27D-4-5	LC	Cambio	Cambio Sin Engobe	Cambio	2	2	17					4	17								21	538
EZ-27D-4-5	LC	Encanto	Encanto Estriado	Encanto			9	1					10								10	248
EZ-27D-4-5	LC	Maquina	Maquina café	Maquina			4						2			1				1	4	58
EZ-27D-4-5	LC	Infierno	Infierno Negro	Infierno			2									1				1	2	35
EZ-27D-4-5	LC	Erosionado	Erosionado	Erosionado	1		10									1				10	11	175
EZ-27D-4-5	LC	Azote	Azote Naranja	Azote			1													1	1	23
EZ-27D-4-5	LC	Tinaja	Tinaja Rojo	Tinaja	1		12	1					8	1		4				1	14	405
EZ-27D-4-5	LC	Posible Policromo	Posible Policromo	Posible Policromo			2	2								3				1	4	100
EZ-27D-4-5	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1									1							1	20
EZ-27D-4-5	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal			1						1								1	6
EZ-27D-4-5	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	2		1							2	1						3	23
EZ-27D-4-5	LC	Policromo ND	Policromo ND	Policromo ND	2									2							2	25
EZ-27D-4-5	LC	Cambio	Cambio Sin Engobe	Cambio			2						2								2	141
EZ-27D-4-5	LC	Encanto	Encanto Estriado	Encanto			2						2								2	13
EZ-27D-4-5	LC	Maquina	Maquina café	Maquina			1						1								1	9
EZ-27D-4-5	LC	Erosionado	Erosionado	Erosionado			3													3	3	41
EZ-27D-4-6	LC	Erosionado	Erosionado	Erosionado	1	6				1										8	8	65
EZ-27D-4-6	LC	Encanto	Encanto Estriado	Encanto			1						1								1	27
EZ-27D-4-6	LC	Maquina	Maquina café	Maquina			1													1	1	1
EZ-27D-5-1	LC-TC	Erosionado	Erosionado	Erosionado			1													1	1	4
EZ-27D-5-1	LC-TC	Encanto	Encanto Estriado	Encanto			1						1								1	5
EZ-27D-5-2	LC-TC	Erosionado	Erosionado	Erosionado			11													11	11	115
EZ-27D-5-2	LC-TC	Cambio	Cambio Sin Engobe	Cambio			2						2								2	20
EZ-27D-5-2	LC-TC	Tinaja	Tinaja Rojo	Tinaja			2													2	2	5
EZ-27D-5-3	LC-TC	Altar	Tumba Negro/Naranja Inciso	ND	1									1							1	81
EZ-27D-5-3	LC-TC	Erosionado	Erosionado	Erosionado			8	2	2							3				9	12	355
EZ-27D-5-3	LC-TC	Cambio	Cambio Sin Engobe	Cambio			3						3								3	60
EZ-27D-5-3	LC-TC	Encanto	Encanto Estriado	Encanto			7						7								7	190
EZ-27D-5-3	LC-TC	Azote	Azote Naranja	Azote			1						1								1	14
EZ-27D-5-3	LC-TC	Tinaja	Tinaja Rojo	Tinaja			1						1								1	2
EZ-27D-5-4	LC	Encanto	Encanto Estriado	Encanto			1						1								1	20
EZ-27D-5-4	LC	Cambio	Cambio Sin Engobe	Cambio		1	1					1	1								2	65
EZ-27D-5-4	LC	Erosionado	Erosionado	Erosionado			5													5	5	61
EZ-27D-5-4	LC	Tinaja	Tinaja Rojo	Tinaja	1		3						2	1		1					4	82
EZ-27D-5-5	LC	Cambio	Cambio Sin Engobe	Cambio		1	7					1	7								8	150
EZ-27D-5-5	LC	Erosionado	Erosionado	Erosionado	1		6													7	7	94
EZ-27D-5-5	LC	Encanto	Encanto Estriado	Encanto		1	3					1	3								4	75
EZ-27D-5-5	LC	Infierno	Infierno Negro	Infierno			1									1					1	2
EZ-27D-5-5	LC	Maquina	Maquina café	Maquina			1													1	1	2
EZ-27D-5-5	LC	Cambio	Pedregal Modelado	Pedregal						1										1	1	46

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27D-5-5	LC	Tinaja	Tinaja Rojo	Tinaja	3		4							3		3				1	7	345
EZ-27D-5-5	LC	Posible Policromo	Posible Policromo	Posible Policromo	1		1							1		1					2	31
EZ-27D-5-5	LC	Posible Policromo	Posible Policromo acanalado	ND			1							1							1	7
EZ-27D-5-5	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	2									2							2	25
EZ-27D-5-5	LC	Cambio	Cambio Sin Engobe	Cambio	2		7					2	7								9	281
EZ-27D-5-5	LC	Encanto	Encanto Estriado	Encanto	1		12					1	12								13	547
EZ-27D-5-5	LC	Tinaja	Tinaja Rojo	Tinaja	2		11	1					2	1		6				5	14	380
EZ-27D-5-5	LC	Erosionado	Erosionado	Erosionado	1	8				1										10	10	182
EZ-27D-5-5	LC	Azote	Azote Naranja	Azote			2									1				1	2	32
EZ-27D-5-5	LC	Tinaja	Camarón Inciso	Camarón	1							1									1	102
EZ-27D-5-5	LC	Harina	Harina Crema	Harina			1						1								1	19
EZ-27D-5-5	LC	Color Diferenciado	Variegated	ND			1													1	1	8
EZ-27D-5-5	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1							1							1	12
EZ-27D-5-5	LC	Zacatal	Paixban Ante Policromo	Paixban				1						1							1	91
EZ-27D-5-5	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1		1							2							2	150
EZ-27D-5-5	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1			1						2							2	105
EZ-27D-5-5	LC	Posible Policromo	Posible Policromo	Posible Policromo			1													1	1	9
EZ-27D-5-5	LC	Encanto	Encanto Estriado	Encanto			4						4								4	90
EZ-27D-5-5	LC	Cambio	Cambio Sin Engobe	Cambio	1	3	22					4	22								26	800
EZ-27D-5-5	LC	Erosionado	Erosionado	Erosionado			20	1	1							1				21	22	395
EZ-27D-5-5	LC	Harina	Harina Crema	Harina			3									2				1	3	146
EZ-27D-5-5	LC	Azote	Azote Naranja	Azote			3						2							1	3	40
EZ-27D-5-5	LC	Tinaja	Subin Rojo	Subin	1									1							1	12
EZ-27D-5-5	LC	Maquina	Maquina café	Maquina			2	1					2			1					3	175
EZ-27D-5-5	LC	Infierno	Infierno Negro	Infierno			1									1					1	13
EZ-27D-5-5	LC	Color Diferenciado	Variegated	ND			1							1							1	12
EZ-27D-5-5	LC	Tinaja	Tinaja Rojo	Tinaja	5		21	1					12	5		9				1	27	1064
EZ-27D-5-5	LC	Saxche-Palmar	Leona rojo/Naranja	Leona			1									1					1	12
EZ-27D-5-5	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			2	1						1		1				1	3	76
EZ-27D-5-5	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1		2							2						1	3	120
EZ-27D-5-5	LC	Policromo ND	Policromo ND	Policromo ND			1							1							1	23
EZ-27D-5-5	LC	Zacatal	Paixban Ante Policromo	Paixban	2									2							2	32
EZ-27D-5-5	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1		1							1		1					2	32
EZ-27D-5-5	LC	Erosionado	Erosionado	Erosionado	5	1	44		1	1		3		3		1				45	52	764
EZ-27D-5-5	LC	Encanto	Encanto Estriado	Encanto			8						8								8	198
EZ-27D-5-5	LC	Cambio	Cambio Sin Engobe	Cambio			1						1								1	93
EZ-27D-5-5	LC	Tinaja	Tinaja Rojo	Tinaja			6						1			1				4	6	50
EZ-27D-5-5	LC	Policromo ND	Policromo ND	Policromo ND	2									2							2	30
EZ-27D-5-5	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			2									2					2	22
EZ-27D-5-5	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	2		2							1	1	2					4	92
EZ-27D-5-5	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal				1						1							1	124
EZ-27D-5-5	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1									1					1	18
EZ-27D-6-6	LC	Cambio	Cambio Sin Engobe	Cambio	5	2	35					7	35								42	1321
EZ-27D-6-6	LC	Encanto	Encanto Estriado	Encanto		4	17	2				4	19								23	1043
EZ-27D-5-6	LC	Erosionado	Erosionado	Erosionado		1	16							1						16	17	390
EZ-27D-5-6	LC	Maquina	Maquina café	Maquina	1		2						2			1					3	71
EZ-27D-5-6	LC	Infierno	Infierno Negro	Infierno		1	1						2								2	18
EZ-27D-5-6	LC	Tinaja	Tinaja Rojo	Tinaja	2		11						2	2		7				2	13	465
EZ-27D-5-6	LC	Posible Policromo	Posible Policromo	Posible Policromo			1									1					1	10
EZ-27D-5-6	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			1									1					1	19
EZ-27D-5-7	LC	Encanto	Encanto Estriado	Encanto		5	25					5	25								30	835
EZ-27D-5-7	LC	Cambio	Cambio Sin Engobe	Cambio	5	7	27					12	27								39	2176
EZ-27D-5-7	LC	Erosionado	Erosionado	Erosionado			22	2								1				23	24	531
EZ-27D-5-7	LC	Tinaja	Tinaja Rojo	Tinaja	3		25	3				1	11	2		14				3	31	1242
EZ-27D-5-7	LC	Harina	Harina Crema	Harina			1	1					1			1					2	70
EZ-27D-5-7	LC	Infierno	Infierno Negro	Infierno	1		1						1	1							2	74
EZ-27D-5-7	LC	Color Diferenciado	Variegated	ND	1		3						3	1							4	60
EZ-27D-5-7	LC	Maquina	Maquina café	Maquina			2						1			1					2	18
EZ-27D-5-7	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			7	1						7	1						8	145
EZ-27D-5-7	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori	2									2							2	30

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27D-5-7	LC	Saxche-Palmar	Leona rojo/Naranja	Leona			1	1					2								2	62
EZ-27D-5-7	LC	Zacatal	Zacatal Crema Policromo	Ik Style				1						1							1	20
EZ-27D-5-7	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			2							2							2	27
EZ-27D-5-7	LC	Policromo ND	Policromo ND	Policromo ND	3			1	1	1				3	1	1				1	6	73
EZ-27D-5-7	LC	Tinaja	Camarón Inciso	Camarón			1						1								1	6
EZ-27D-5-7	LC	Posible Policromo	Posible Policromo	Posible Policromo			4	1					1			4					5	43
EZ-27D-5-7	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		1						1	1							2	22
EZ-27D-5-8	LC	Encanto	Encanto Estriado	Encanto		3	20	1				3	21								24	624
EZ-27D-5-8	LC	Cambio	Cambio Sin Engobe	Cambio	2	5	34					7	34								41	1451
EZ-27D-5-8	LC	Erosionado	Erosionado	Erosionado	4	1	24	2					4							27	31	765
EZ-27D-5-8	LC	Erosionado	Erosionado Impreso	Estilo Chinja ND	1									1							1	67
EZ-27D-5-8	LC	Tinaja	Tinaja Rojo	Tinaja		2		10				2	2			5				3	12	460
EZ-27D-5-8	LC	Maquina	Maquina café	Maquina	2		3	1					2	2		1				1	6	117
EZ-27D-5-8	LC	Tinaja	Tolla Acanalado	Tolla			1													1	1	6
EZ-27D-5-8	LC	Saxche-Palmar	Leona rojo/Naranja	Leona			2							2							2	24
EZ-27D-5-8	LC	Saxche-Palmar	Leona rojo/Naranja	Anonal	1			1						2							2	92
EZ-27D-5-8	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1		2							3							3	50
EZ-27D-5-8	LC	Policromo erosionado	Policromo Erosionado	Policromo Erosionado	1		1						1	1							2	28
EZ-27D-5-8	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1		1							2							2	25
EZ-27D-5-8	LC	Posible Policromo	Posible Policromo	Posible Policromo			3							3							3	16
EZ-27D-5-8	LC	Posible Policromo	Posible Policromo Inciso	ND			1						1								1	2
EZ-27D-5-9	LC	Erosionado	Erosionado	Erosionado	1		6		1			1				1				6	8	220
EZ-27D-5-9	LC	Encanto	Encanto Estriado	Encanto		2	14					2	14								16	520
EZ-27D-5-9	LC	Cambio	Cambio Sin Engobe	Cambio	3		4					3	4								7	202
EZ-27D-5-9	LC	Maquina	Tenaja Acanalado	Tenaja	1									1							1	90
EZ-27D-5-9	LC	Harina	Harina Crema	Harina			1						1								1	2
EZ-27D-5-9	LC	Tinaja	Tinaja Rojo	Tinaja			3						1			2					3	50
EZ-27D-5-9	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal			1	1					1	1							2	60
EZ-27D-5-9	LC	Posible Policromo	Posible Policromo	Posible Policromo			2						1			1					2	12
EZ-27D-5-10	LC	Erosionado	Erosionado	Erosionado			4													4	4	43
EZ-27D-5-10	LC	Tinaja	Tinaja Rojo	Tinaja			1						1								1	2
EZ-27D-6-1	LC	Erosionado	Erosionado	Erosionado			8		1							1				8	9	89
EZ-27D-6-1	LC	Harina	Harina Crema	Harina			1									1					1	8
EZ-27D-6-1	LC	Tinaja	Tinaja Rojo	Tinaja			3									1				2	3	23
EZ-27D-6-1	LC	Encanto	Encanto Estriado	Encanto			4						4								4	43
EZ-27D-6-2	LC	Erosionado	Erosionado	Erosionado		1	20					1								20	21	455
EZ-27D-6-2	LC	Tinaja	Chinja Impreso	Chinja	1									1							1	175
EZ-27D-6-2	LC	Tinaja	Tinaja Rojo	Tinaja			6													6	6	43
EZ-27D-6-2	LC	Tinaja	Camarón Inciso	Camarón			1							1							1	12
EZ-27D-6-2	LC	Tinaja	Subin Rojo	Subin	1									1							1	8
EZ-27D-6-2	LC	Encanto	Encanto Estriado	Encanto			3						3								3	50
EZ-27D-6-2	LC	Cambio	Cambio Sin Engobe	Cambio			1						1								1	90
EZ-27D-6-3	LC	Erosionado	Erosionado Inciso	ND	1			1						2							2	95
EZ-27D-6-3	LC	Erosionado	Erosionado	Erosionado	1	1	24	3				2		2	1					24	29	608
EZ-27D-6-3	LC	Tinaja	Chinja Impreso	Chinja	1									1							1	24
EZ-27D-6-3	LC	Tinaja	Tinaja Rojo	Tinaja	1	11								1		4				7	12	322
EZ-27D-6-3	LC	Cambio	Cambio Sin Engobe	Cambio	1	4	9					5	9								14	792
EZ-27D-6-3	LC	Encanto	Encanto Estriado	Encanto			10						10								10	200
EZ-27D-6-3	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		1							1		1					2	15
EZ-27D-6-4	LC	Cambio	Cambio Sin Engobe	Cambio		2	15					2	15								17	554
EZ-27D-6-4	LC	Erosionado	Erosionado	Erosionado	1	2	32	5	1			3				2				36	41	788
EZ-27D-6-4	LC	Erosionado	Erosionado Impreso	Estilo Chaquiste ND	2									2							2	150
EZ-27D-6-4	LC	Encanto	Encanto Estriado	Encanto		4	17					4	17								21	968
EZ-27D-6-4	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1		1							1						1	2	35
EZ-27D-6-4	LC	Posible Policromo	Posible Policromo	Posible Policromo			1									1					1	2
EZ-27D-6-4	LC	Infierno	Infierno Negro	Infierno			1									1					1	26
EZ-27D-6-4	LC	Color Diferenciado	Variegated	ND				1						1							1	45
EZ-27D-6-4	LC	Tinaja	Chinja Impreso	Chinja	2									2							2	50
EZ-27D-6-4	LC	Tinaja	Camarón Inciso	Camarón	1									1							1	23
EZ-27D-6-4	LC	Tinaja	Chaquiste Impreso	Chaquiste	1									1							1	15

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27D-6-4	LC	Tinaja	Tinaja Rojo	Tinaja		1	12						1			5				7	13	250
EZ-27D-6-5	LC	Erosionado	Erosionado	Erosionado	1	2	40	3	1			3				2				42	47	886
EZ-27D-6-5	LC	Encanto	Encanto Estriado	Encanto		2	17					2	17								19	510
EZ-27D-6-5	LC	Cambio	Cambio Sin Engobe	Cambio	2	3	10					5	10								15	958
EZ-27D-6-5	LC	Erosionado	Erosionado Impreso	Estilo Chinja ND	1									1							1	60
EZ-27D-6-5	LC	Azote	Azote Naranja	Azote			1									1					1	26
EZ-27D-6-5	LC	Tinaja	Tinaja Rojo	Tinaja			9						4			2				3	9	190
EZ-27D-6-5	LC	Tinaja	Subin Rojo	Subin			5						1			2				2	5	105
EZ-27D-6-5	LC	Posible Policromo	Posible Policromo	Posible Policromo				1								1					1	45
EZ-27D-6-5	LC	Tinaja	Tolla Acanalado	Tolla	1									1							1	4
EZ-27D-6-5	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	4									3	1						4	120
EZ-27D-6-6	LC	Tinaja	Tinaja Rojo	Tinaja			13	1					3			3				8	14	233
EZ-27D-6-6	LC	Azote	Azote Naranja	Azote			1	1								1				1	2	30
EZ-27D-6-6	LC	Tinaja	Subin Rojo	Subin	1		1													2	2	26
EZ-27D-6-6	LC	Maquina	Maquina café	Maquina			2													2	2	13
EZ-27D-6-6	LC	Harina	Harina Crema	Harina			1													1	1	7
EZ-27D-6-6	LC	Encanto	Encanto Estriado	Encanto		3	10					3	10								13	425
EZ-27D-6-6	LC	Erosionado	Erosionado	Erosionado	1	2	21	4		1	1	2								26	29	676
EZ-27D-6-6	LC	Cambio	Cambio Sin Engobe	Cambio	3	4	12	3				7	15								22	800
EZ-27D-6-6	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1		1							1						1	2	28
EZ-27D-6-6	LC	Posible Policromo	Posible Policromo	Posible Policromo			1									1					1	8
EZ-27D-6-6	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2		2	1						1	2	1				1	5	45
EZ-27D-6-7	LC	Erosionado	Erosionado	Erosionado			10	1								1				10	11	232
EZ-27D-6-7	LC	Encanto	Encanto Estriado	Encanto		1	11					1	11								12	251
EZ-27D-6-7	LC	Cambio	Cambio Sin Engobe	Cambio	1	2	9					3	9								12	225
EZ-27D-6-7	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			2													2	2	8
EZ-27D-6-7	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar				1							1						1	50
EZ-27D-6-7	LC	Saxche-Palmar	Leona rojo/Naranja	Leona			1							1							1	6
EZ-27D-6-7	LC	Tinaja	Tinaja Rojo	Tinaja			5									1				4	5	175
EZ-27D-6-8	LC	Erosionado	Erosionado	Erosionado			2													2	2	20
EZ-27D-6-8	LC	Encanto	Encanto Estriado	Encanto			2						2								2	25
EZ-27D-6-8	LC	Cambio	Cambio Sin Engobe	Cambio			5						5								5	155
EZ-27D-6-8	LC	Tinaja	Tinaja Rojo	Tinaja		1	1					1								1	2	7
EZ-27D-6-9	LC	Erosionado	Erosionado	Erosionado			5													5	5	50
EZ-27D-6-9	LC	Encanto	Encanto Estriado	Encanto		2						2									2	92
EZ-27D-6-9	LC	Tinaja	Tinaja Rojo	Tinaja			1						1								1	2
EZ-27D-6-9	LC	Posible Policromo	Posible Policromo	Posible Policromo			1							1							1	6
EZ-27D-7-1	LC-TC	Erosionado	Erosionado	Erosionado			1													1	1	1
EZ-27D-7-1	LC-TC	Saxche-Palmar	Leona rojo/Naranja	Leona			1							1							1	1
EZ-27D-7-2	LC-TC	Encanto	Encanto Estriado	Encanto			1						1								1	0.5
EZ-27D-7-2	LC-TC	Erosionado	Erosionado	Erosionado		1	5	1				1				1				5	7	70
EZ-27D-7-2	LC-TC	Posible Policromo	Posible Policromo	Posible Policromo			1													1	1	0.5
EZ-27D-7-3	LC-TC	Tinaja	Tinaja Rojo	Tinaja			4									1				3	4	18
EZ-27D-7-3	LC-TC	Erosionado	Erosionado	Erosionado			2													2	2	10
EZ-27D-7-3	LC-TC	Encanto	Encanto Estriado	Encanto			3						3								3	65
EZ-27D-7-3	LC-TC	Maquina	Maquina café	Maquina	1															1	1	1
EZ-27D-7-4	LC-TC	Tinaja	Tinaja Rojo	Tinaja	2		1							2						1	3	170
EZ-27D-7-4	LC-TC	Altar	Altar Naranja	Altar			1													1	1	10
EZ-27D-7-4	LC-TC	Encanto	Encanto Estriado	Encanto			4						4								4	55
EZ-27D-7-4	LC-TC	Erosionado	Erosionado	Erosionado			7	1						1						7	8	110
EZ-27D-7-4	LC-TC	Cambio	Cambio Sin Engobe	Cambio			3						3								3	60
EZ-27D-7-4	LC-TC	Posible Policromo	Posible Policromo Gubiado-Inciso	ND	1									1							1	15
EZ-27D-7-5	LC	Maquina	Maquina café	Maquina			1													1	1	8
EZ-27D-7-5	LC	Erosionado	Erosionado	Erosionado	2	1	7	1				1								10	11	240
EZ-27D-7-5	LC	Encanto	Encanto Estriado	Encanto		1	10					1	10								11	160
EZ-27D-7-5	LC	Cambio	Cambio Sin Engobe	Cambio			2						2								2	37
EZ-27D-7-5	LC	Azote	Azote Naranja	Azote		1	2					1	2								3	33
EZ-27D-7-5	LC	Tinaja	Chinja Impreso	Chinja	1									1							1	35
EZ-27D-7-5	LC	Tinaja	Tinaja Rojo	Tinaja			2									2					2	10
EZ-27D-7-5	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		1							2							2	32

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27D-7-5	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1									1							1	15
EZ-27D-7-6	LC	Infierno	Infierno Negro	Infierno	1		3					1	1			2					4	135
EZ-27D-7-6	LC	Maquina	Maquina café	Maquina			3							2						1	3	220
EZ-27D-7-6	LC	Saxche-Palmar	Leona rojo/Naranja	Leona	1									1							1	3
EZ-27D-7-6	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			2							2							2	7
EZ-27D-7-6	LC	Cambio	Cambio Sin Engobe	Cambio		2	20					2	20								22	584
EZ-27D-7-6	LC	Encanto	Encanto Estriado	Encanto		2	10					2	10								12	389
EZ-27D-7-6	LC	Erosionado	Erosionado	Erosionado			33	4												37	37	590
EZ-27D-7-6	LC	Tinaja	Tinaja Rojo	Tinaja	2		18					1	5	1		7				6	20	465
EZ-27D-7-6	LC	Azote	Azote Naranja	Azote			5						1			1				3	5	60
EZ-27D-7-6	LC	Tinaja	Chinja Impreso	Chinja	1									1							1	45
EZ-27D-7-7	LC	Maquina	Maquina café	Maquina			3						2							1	3	38
EZ-27D-7-7	LC	Tinaja	Tinaja Rojo	Tinaja			6						3			1				2	6	98
EZ-27D-7-7	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal	1									1							1	60
EZ-27D-7-7	LC	Saxche-Palmar	Leona rojo/Naranja	Leona			1						1								1	1
EZ-27D-7-7	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			1							1							1	14
EZ-27D-7-7	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1							1							1	4
EZ-27D-7-7	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			1	1								1				1	2	18
EZ-27D-7-8	LC	Erosionado	Erosionado	Erosionado			4	2								3				3	6	227
EZ-27D-7-8	LC	Encanto	Encanto Estriado	Encanto		1	15					1	15								16	469
EZ-27D-7-8	LC	Cambio	Cambio Sin Engobe	Cambio	2		6					2	6								8	135
EZ-27D-7-8	LC	Harina	Harina Crema	Harina			1													1	1	6
EZ-27D-7-8	LC	Maquina	Maquina café	Maquina			1						1								1	3
EZ-27D-7-8	LC	Infierno	Infierno Negro	Infierno			1									1					1	7
EZ-27D-7-8	LC	Tinaja	Tinaja Rojo	Tinaja	1		7					1	2			3				2	8	262
EZ-27D-7-8	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	2		5	2					1	2		6					9	75
EZ-27D-7-8	LC	Posible Policromo	Posible Policromo	Posible Policromo			3									2				1	3	26
EZ-27D-7-8	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1									1							1	11
EZ-27D-7-9	LC	Color Diferenciado	Variegated	ND			1													1	1	59
EZ-27D-7-9	LC	Tinaja	Tinaja Rojo	Tinaja	1		9						2	1		2				5	10	140
EZ-27D-7-9	LC	Erosionado	Erosionado	Erosionado	1		13	1				1				1				13	15	219
EZ-27D-7-9	LC	Infierno	Infierno Negro	Infierno			3													3	3	53
EZ-27D-7-9	LC	Maquina	Maquina café	Maquina			1													1	1	5
EZ-27D-7-9	LC	Harina	Harina Crema	Harina			1													1	1	11
EZ-27D-7-9	LC	Cambio	Cambio Sin Engobe	Cambio		3	12					3	12								15	350
EZ-27D-7-9	LC	Encanto	Encanto Estriado	Encanto		2	20	1				2	21								23	743
EZ-27D-7-9	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1							1							1	5
EZ-27D-7-9	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			1							1							1	2
EZ-27D-7-9	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1										1						1	12
EZ-27D-7-9	LC	Posible Policromo	Posible Policromo	Posible Policromo	1		1							2							2	25
EZ-27D-7-10	LC	Tinaja	Camarón Inciso	Corozal			1							1							1	18
EZ-27D-7-10	LC	Encanto	Encanto Estriado	Encanto			2						2								2	10
EZ-27D-7-10	LC	Cambio	Cambio Sin Engobe	Cambio		1	2					1	2								3	35
EZ-27D-7-10	LC	Erosionado	Erosionado	Erosionado			2													2	2	8
EZ-27D-7-10	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			2							1	1						2	35
EZ-27D-11-1		Erosionado	Erosionado	Erosionado	2	1	3					1			2					3	6	150
EZ-27D-11-2		Encanto	Encanto Estriado	Encanto		2	9					2	9								11	255
EZ-27D-11-2		Tinaja	SUbin Rojo	SUbin			5									3				2	5	30
EZ-27D-11-2		Erosionado	Erosionado	Erosionado	11	5	72	5				11		3	3					76	93	1578
EZ-27D-11-2		Cambio	Miseria Aplicado Inciso	ND			1											1			1	52
EZ-27D-11-2		Cambio	Miseria Aplicado	Cedral						1								1			1	2
EZ-27D-11-3		Erosionado	Erosionado	Erosionado	1		4	1						1						5	6	101
EZ-27D-11-3		Erosionado	Erosionado Acanalado	ND				1						1							1	11
EZ-27D-11-3		Tinaja	Subin Rojo	Subin			1													1	1	1
EZ-27D-11-3		Maquina	Maquina Café	Maquina			2													2	2	23
EZ-27D-11-3		Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1									1							1	15
EZ-27D-12-1	TC	Erosionado	Erosionado	Erosionado	3	3	42	3		1		5				2				45	52	830
EZ-27D-12-1	TC	Encanto	Encanto Estriado	Encanto			14						14								14	274
EZ-27D-12-1	TC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1											1					1	10
EZ-27D-12-2	TC	Erosionado	Erosionado	Erosionado	5		27	1	2			4				2				29	35	505

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27D-12-2	TC	Encanto	Encanto Estriado	Encanto			7						7								7	108
EZ-27D-12-2	TC	Cambio	Cambio Sin Engobe	Cambio			11						11								11	270
EZ-27D-12-2	TC	Maquina	Maquina Café	Maquina			1													1	1	1
EZ-27D-12-2	TC	Tinaja	Subin Rojo	Subin			4									1				3	4	20
EZ-27D-12-2	TC	Azote	Azote impreso	Estilo Chinja ND	1									1							1	25
EZ-27D-12-3	LC? TC?	Cambio	Cambio Sin Engobe	Cambio	1		13					1	13								14	290
EZ-27D-12-3	LC? TC?	Erosionado	Erosionado	Erosionado			4													4	4	15
EZ-27D-12-3	LC? TC?	Encanto	Encanto Estriado	Encanto			3						3								3	75
EZ-27D-12-3	LC? TC?	Tinaja	Tinaja Rojo	Tinaja			4									1				3	4	25
EZ-27D-12-3	LC? TC?	Maquina	Maquina Café	Maquina			1													1	1	10
EZ-27D-12-3	LC? TC?	Infierno	Infierno Negro	Infierno			1													1	1	17
EZ-27D-12-4	LC? TC?	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		1							1		1					2	20
EZ-27D-12-4	LC? TC?	Cambio	Cambio Sin Engobe	Cambio		1	12					1	12								13	313
EZ-27D-12-4	LC? TC?	Encanto	Encanto Estriado	Encanto		1	13					1	13								14	275
EZ-27D-12-4	LC? TC?	Erosionado	Erosionado	Erosionado			2													2	2	65
EZ-27D-12-4	LC? TC?	Tinaja	Subin Rojo	Subin	1		3							1		1				2	4	107
EZ-27D-12-4	LC? TC?	Tinaja	Tinaja Rojo	Tinaja	2		1							2		1					3	125
EZ-27D-12-4	LC? TC?	Tinaja	Chinja Impreso	Chinja	1									1							1	27
EZ-27D-12-4	LC? TC?	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		5							1		4				1	6	60
EZ-27D-12-5	LC? TC?	Cambio	Cambio Sin Engobe	Cambio	1		8					1	8								9	224
EZ-27D-12-5	LC? TC?	Encanto	Encanto Estriado	Encanto			4						4								4	48
EZ-27D-12-5	LC? TC?	Erosionado	Erosionado	Erosionado			1													1	1	20
EZ-27D-12-5	LC? TC?	Tinaja	Tinaja Rojo	Tinaja	1		3						1	1		1				1	4	80
EZ-27D-12-5	LC? TC?	Tinaja	Subin Rojo	Subin			1						1								1	7
EZ-27D-12-5	LC? TC?	Maquina	Maquina Café	Maquina			1						1								1	20
EZ-27D-12-5	LC? TC?	Infierno	Infierno Negro	Infierno			2									2					2	42
EZ-27D-12-5	LC? TC?	Posible Policromo	Posible Policromo	Posible Policromo			1													1	1	32
EZ-27D-12-5	LC? TC?	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			1	1						1		1					2	45
EZ-27D-12-5	LC? TC?	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			1									1					1	11
EZ-27D-12-6	LC	Encanto	Encanto Estriado	Encanto		4	32					4	32								36	1237
EZ-27D-12-6	LC	Cambio	Cambio Sin Engobe	Cambio	12	3	35					15	35								50	2061
EZ-27D-12-6	LC	Erosionado	Erosionado	Erosionado	2		20	2						1						23	24	390
EZ-27D-12-6	LC	Tinaja	Camarón Inciso	Camarón	1									1							1	60
EZ-27D-12-6	LC	Tinaja	Tinaja Rojo	Tinaja	3	1	23					2	15	2		3				5	27	815
EZ-27D-12-6	LC	Tinaja	Subin Rojo	Subin	2	2	2					4	1	1							6	256
EZ-27D-12-6	LC	Azote	Azote Naranja	Azote			1						1								1	17
EZ-27D-12-6	LC	MAQuina	maquina Café	maquina	1		6						2	1		3				1	7	175
EZ-27D-12-6	LC	Maquina	Azucar Impreso	Estilo Chinja ND	1									1							1	55
EZ-27D-12-6	LC	Maquina	Azucar Impreso	Estilo Chaquiste ND	1									1							1	72
EZ-27D-12-6	LC	Infierno	Infierno Negro	Infierno			11						4			4				3	11	150
EZ-27D-12-6	LC	Color Diferenciado	Variegated	ND			1									1					1	32
EZ-27D-12-6	LC	Posible Policromo	Posible Policromo	Posible Policromo	1		4	2						2	1	2				2	7	123
EZ-27D-12-6	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	4		9	1					1	3	4	2				4	14	198
EZ-27D-12-6	LC	Saxche-Palmar	Leona Rojo/Naranja	Miel amarillo			1							1							1	3
EZ-27D-12-6	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal			1							1							1	8
EZ-27D-12-6	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	3		4	1						3	4	1					8	285
EZ-27D-12-6	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel amarillo	1									1							1	35
EZ-27D-12-6	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	3		3	1						4		2				1	7	145
EZ-27D-12-6	LC	Zacatal	Zacatal Crema Policromo	Posible Zotz Rojo			1							1							1	5
EZ-27D-12-6	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori	1									1							1	6
EZ-27D-12-6	LC	Saxche-Palmar	Saxche-Palmar Naranja Acanalado	ND			1							1							1	35
EZ-27D-12-6	LC	Infierno	Carmelita Inciso	Carmelita				1									1				1	6
EZ-27D-12-6	LC	Cambio	Cambio Sin Engobe	Cambio	2	2	16	1				3	17							1	21	539
EZ-27D-12-6	LC	EnCanto	Encanto Estriado	Encanto		2	11					2	11								13	287
EZ-27D-12-6	LC	ERosionado	Erosionado	Erosionado	1	1	5		1			1				1				6	8	82
EZ-27D-12-6	LC	ERosionado	Erosionado inciso	ND	1									1							1	7
EZ-27D-12-6	LC	Tinaja	Tinaja Rojo	Tinaja			7	2					1			5				3	9	155
EZ-27D-12-6	LC	Maquina	Maquina Café	Maquina			3						1			1				1	3	26
EZ-27D-12-6	LC	Azote	Azote Naranja	Azote			3						1							2	3	50
EZ-27D-12-6	LC	Infierno	infierno Negro	infierno			6						5			1					6	95

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27D-12-6	LC	Color Diferenciado	Variegated	ND	1		3	1						1		3				1	5	98
EZ-27D-12-6	LC	Policromo Erosionado	policromo Erosionado	Policromo Erosionado	1			1						1		1					2	7
EZ-27D-12-6	LC	Posible Policromo	Posible Policromo	Posible Policromo			3	3								6					6	25
EZ-27D-12-6	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	4									4							4	26
EZ-27D-12-6	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			3	2					3		1	1					5	123
EZ-27D-13-1	ND	Erosionado	Erosionado	Erosionado			6													6	6	25
EZ-27D-13-2	ND	Erosionado	Erosionado	Erosionado	4	2	46	5				2		4						51	57	1062
EZ-27D-13-2		Encanto	Encanto Estriado	Encanto			6						6								6	125
EZ-27D-13-2		Erosionado	Erosionado Impreso	Estilo Chaquiste ND			1							1							1	35
EZ-27D-13-2		Color Diferenciado	Variegated	ND				1												1	1	240
EZ-27D-13-2		Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1									1							1	21
EZ-27D-13-2		Tinaja	Subin Rojo	Subin			4									2				2	4	63
EZ-27D-14-1	TC	Erosionado	Erosionado	Erosionado			14							1						13	14	160
EZ-27D-14-1	TC	Tinaja	Tinaja Rojo	Tinaja			1													1	1	3
EZ-27D-14-2	TC	Erosionado	Erosionado	Erosionado	6	3	36	2				3		4		2				38	47	1006
EZ-27D-14-2	TC	Erosionado	Erosionado Impreso	Estilo Chaquiste ND	1									1							1	96
EZ-27D-14-2	TC	Cambio	Cambio Sin Engobe	Cambio	3	2	4					5	4								9	422
EZ-27D-14-2	TC	Encanto	Encanto Estriado	Encanto			8						8								8	210
EZ-27D-14-2	TC	Tinaja	Subin Rojo	Subin	3		3							5						1	6	275
EZ-27D-14-2	TC	Azote	Azote Naranja	Azote			3													3	3	68
EZ-27D-14-2	TC	Erosionado	Erosionado impreso	Estilo Chinja ND	1		1							1						1	2	168
EZ-27D-14-3		EnCanto	Encanto Estriado	Encanto			1						1								1	58
EZ-27D-14-3		Cambio	Cambio Sin Engobe	Cambio			1						1								1	15
EZ-27D-14-3		Tinaja	Subin Rojo	Subin			2								1					1	2	40
EZ-27D-14-3		Erosionado	Erosionado	Erosionado			1													1	1	41
EZ-27D-15-1	ND	Erosionado	Erosionado	Erosionado	2	3	10	1				4		2						10	16	330
EZ-27D-15-2	LC? TC?	Erosionado	Erosionado	Erosionado	12	3	78	7	1			7		6		1				87	101	2448
EZ-27D-15-2	LC? TC?	Erosionado	Erosionado impreso	Estilo Chinja ND	1									1							1	25
EZ-27D-15-2	LC? TC?	Erosionado	Erosionado Impreso	Estilo Chaquiste ND	1									1							1	39
EZ-27D-15-2	LC? TC?	EnCanto	Encanto Estriado	Encanto		2	16	2				2	18								20	805
EZ-27D-15-2	LC? TC?	Cambio	Cambio Sin Engobe	Cambio	8	6	47					14	47								61	1725
EZ-27D-15-2	LC? TC?	Color Diferenciado	Variegated	ND			2	1								3					3	110
EZ-27D-15-2	LC? TC?	Tinaja	Tinaja Rojo	Tinaja	1		8						2	1		1				5	9	101
EZ-27D-15-2	LC? TC?	Tinaja	Subin Rojo	Subin	2	1	8					1		1	1	3				5	11	196
EZ-27D-15-2	LC? TC?	Tinaja	Subin Rojo impreso	Estilo Chaquiste ND	1									1							1	47
EZ-27D-15-2	LC? TC?	Azote	Azote Naranja	Azote			2									2					2	24
EZ-27D-15-2	LC? TC?	Maquina	Maquina Café	Maquina		1	3					1				1				2	4	85
EZ-27D-15-2	LC? TC?	Maquina	Azucar Impreso	Azucar	1									1							1	85
EZ-27D-15-2	LC? TC?	Infierno	Infierno Negro	Infierno			`	1								1					1	47
EZ-27D-15-2	LC? TC?	Posible Policromo	Posible Policromo	Posible Policromo			2	1								1				2	3	49
EZ-27D-15-2	LC? TC?	Policromo Erosionado	policromo Erosionado	Policromo Erosionado	5		3	2						5	1	3				1	10	195
EZ-27D-15-2	LC? TC?	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1		2							3							3	75
EZ-27D-15-2	LC? TC?	Saxche-Palmar	Saxche-Palmar Naranja modelado	ND			1									1					1	40
EZ-27D-15-2	TC	Erosionado	Erosionado	Erosionado	5		10							4						11	15	215
EZ-27D-15-2	TC	Erosionado	Erosionado impreso	Estilo Chinja ND	1									1							1	18
EZ-27D-15-2	TC	Encanto	Encanto Estriado	Encanto			3						3								3	112
EZ-27D-15-2	TC	Cambio	Cambio Sin Engobe	Cambio			3						3								3	52
EZ-27D-15-2	TC	Tinaja	Subin Rojo	Subin			1									1					1	5
EZ-27D-15-2	TC	Azote	Torres Inciso	Torres	1									1							1	38
EZ-27D-15-3	LC?	Erosionado	Erosionado	Erosionado	1		16	3	1					1		1				19	21	586
EZ-27D-15-3	LC?	Cambio	Cambio Sin Engobe	Cambio	3	2	29					5	29								34	1283
EZ-27D-15-3	LC?	Encanto	Encanto Estriado	Encanto		2	24	1				2	25								27	922
EZ-27D-15-3	LC?	Tinaja	Tinaja Rojo	Tinaja	1		11						1	1		1				9	12	335
EZ-27D-15-3	LC?	Tinaja	Subin Rojo	Subin			4									1				3	4	40
EZ-27D-15-3	LC?	MAQuina	Maquina Café	Maquina			4									2				2	4	155
EZ-27D-15-3	LC?	Azote	Azote Naranja	Azote			2									1				1	2	23
EZ-27D-15-3	LC?	Infierno	Infierno Negro	Infierno			2													2	2	71
EZ-27D-15-3	LC?	Posible Policromo	Posible Policromo	Posible Policromo			1									1					1	2
EZ-27D-15-3	LC?	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		4							2						3	5	76
EZ-27D-15-3	LC?	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	5		1								5					1	6	155

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27D-15-3	LC?	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel amarillo			1							1							1	9
EZ-27D-15-3	LC?	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori			1									1					1	5
EZ-27D-15-3	LC?	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal			1	1								2					2	11
EZ-27D-15-3	LC?	Zacatal	Zacatal Crema Acanalado	ND	1									1							1	7
EZ-27D-?-?	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1			1	1					1	2						3	250
EZ-27D-?-?	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Posible Miel Amarillo			1							1							1	8
EZ-27D-?-?	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal	1		1							2							2	123
EZ-27D-?-?	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1									1							1	16
EZ-27D-?-?	LC	Infierno	Carmelita Inciso	Carmelita			1						1								1	31
EZ-27D-?-?	LC	Tinaja	Tinaja Rojo	Tinaja			10						6			4					10	120
EZ-27D-?-?	LC	Azote	Azote Naranja	Azote			1						1								1	2
EZ-27D-?-?	LC	Encanto	Encanto Estriado	Encanto			3						3								3	32
EZ-27D-?-?	LC	Cambio	Cambio Sin Engobe	Cambio			3						3								3	51
EZ-27D-?-?	LC	Erosionado	Erosionado	Erosionado			12													12	12	124
EZ-27E-1-1	LC	Cambio	Cambio Sin Engobe	Cambio			7						7								7	56
EZ-27E-1-1	LC	Erosionado	Erosionado	Erosionado	8	1	75	4				2		2	1	5				78	88	914
EZ-27E-1-1	LC	Encanto	Encanto Estriado	Encanto			34						34								34	505
EZ-27E-1-1	LC	Maquina	Maquina café	Maquina			3	1					2			1				1	4	58
EZ-27E-1-1	LC	Tinaja	Tinaja Rojo	Tinaja	3		37	2					6			11				25	42	308
EZ-27E-1-1	LC	Erosionado	Erosionado Acanalado	ND			1													1	1	7
EZ-27E-1-1	LC	Azote	Azote Naranja	Azote			1	1												2	2	35
EZ-27E-1-1	LC	Color Diferenciado	Variegated	ND			1													1	1	7
EZ-27E-1-1	LC	Infierno	Infierno Negro	Infierno			8									2				6	8	47
EZ-27E-1-1	LC	Infierno	Carmelita Inciso	Carmelita	1									1							1	75
EZ-27E-1-1	LC	Posible Policromo	Posible Policromo	Posible Policromo	2		6							1	1	4				2	8	66
EZ-27E-1-1	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2		2	1						2	1					2	5	42
EZ-27E-1-1	LC	Tinaja	Tolla Acanalado	Tolla			1							1							1	7
EZ-27E-1-1	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	1			1						2							2	25
EZ-27E-1-1	LC	Zacatal	Paixban Ante Policromo	Paixban	1									1							1	17
EZ-27E-1-1	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	5		4	1						6	1					3	10	132
EZ-27E-1-1	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel Amarillo	1									1							1	8
EZ-27F-1-1	LC	Erosionado	Erosionado	Erosionado	2	2	25	1				3			1					26	30	525
EZ-27F-1-1	LC	Encanto	Encanto Estriado	Encanto			12						12								12	185
EZ-27F-1-1	LC	Cambio	Cambio Sin Engobe	Cambio		1	8					1	8								9	158
EZ-27F-1-1	LC	Tinaja	Tinaja Rojo	Tinaja			6	1					3			4					7	634
EZ-27F-1-1	LC	Infierno	Infierno Negro	Infierno			2	1								1				2	3	25
EZ-27F-1-1	LC	Posible Policromo	Posible Policromo	Posible Policromo			2									2					2	11
EZ-27F-1-1	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			1									1					1	2
EZ-27F-2-1	LC	Erosionado	Erosionado	Erosionado	2		19					1		1						19	21	608
EZ-27F-2-1	LC	Encanto	Encanto Estriado	Encanto			3						3								3	47
EZ-27F-2-1	LC	Azote	Azote Naranja	Azote	1		2							1						2	3	52
EZ-27F-2-1	LC	Tinaja	Tinaja Rojo	Tinaja			3									1				2	3	40
EZ-27F-2-1	LC	Posible Policromo	Posible Policromo	Posible Policromo				1								1					1	9
EZ-27F-2-2	LC	Encanto	Encanto Estriado	Encanto			14						14								14	350
EZ-27F-2-2	LC	Erosionado	Erosionado	Erosionado		1	18					1								18	19	380
EZ-27F-2-2	LC	Cambio	Cambio Sin Engobe	Cambio	1	2	15					3	15								18	418
EZ-27F-2-2	LC	Tinaja	Tinaja Rojo	Tinaja	2	1	15					1	4	2		2				9	18	350
EZ-27F-2-2	LC	Posible Policromo	Posible Policromo	Posible Policromo	1		1							1		1					2	54
EZ-27F-2-2	LC	Infierno	Infierno Negro	Infierno	1															1	1	2
EZ-27F-2-3	LC	Cambio	Cambio Sin Engobe	Cambio	1	1	10					2	10								12	151
EZ-27F-2-3	LC	Encanto	Encanto Estriado	Encanto			3						3								3	26
EZ-27F-2-3	LC	Gris ND	Gris ND	Gris ND			1													1	1	7
EZ-27F-2-3	LC	Erosionado	Erosionado	Erosionado			6													6	6	68
EZ-27F-2-3	LC	Tinaja	Tinaja Rojo	Tinaja	1	1	7					1	1	1		2				4	9	135
EZ-27F-2-3	LC	Azote	Azote Naranja	Azote			1						1								1	18
EZ-27F-2-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1									1							1	15
EZ-27F-2-3	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1									1					1	1
EZ-27F-2-3	LC	Policromo ND	Policromo ND	Policromo ND		1														1	1	8
EZ-27F-3-1	LC	Erosionado	Erosionado	Erosionado	1		7							1						7	8	77
EZ-27F-3-1	LC	Encanto	Encanto Estriado	Encanto			2						2								2	25

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
EZ-27F-3-1	LC	Tinaja	Tinaja Rojo	Tinaja			1													1	1	7
EZ-27F-3-1	LC	Azote	Azote Naranja	Azote			1													1	1	18
EZ-27F-3-1	LC	Cambio	Cambio Sin Engobe	Cambio			3						3								3	40
EZ-27F-3-1	LC	Tinaja	Camarón Inciso	Camarón			1													1	1	4
EZ-27G-1-1	LC	Cambio	Cambio Sin Engobe	Cambio	3	7	4					10	4								14	425
EZ-27G-1-1	LC	Cambio	Ciro Inciso	Ciro	1							1									1	8
EZ-27G-1-1	LC	Encanto	Encanto Estriado	Encanto		3	40					3	40								43	728
EZ-27G-1-1	LC	Erosionado	Erosionado	Erosionado	23	6	138	7	3			10		6	9	5				147	177	2651
EZ-27G-1-1	LC	Erosionado	Erosionado	Erosionado			4													4	4	63
EZ-27G-1-1	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	2		6							1	1	3				3	8	125
EZ-27G-1-1	LC	Posible Policromo	Posible Policromo	Posible Policromo			7	1	1							6				3	9	123
EZ-27G-1-1	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	3		2							2	1	1				1	5	60
EZ-27G-1-1	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1													1	1	1
EZ-27G-1-1	LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori	1		5						1		1	2				2	6	80
EZ-27G-1-1	LC	Saxche-Palmar	Leona rojo/Naranja	Leona	1		2							1						2	3	21
EZ-27G-1-1	LC	Maquina	Maquina café	Maquina			9						5							4	9	98
EZ-27G-1-1	LC	Infierno	Infierno Negro	Infierno	1		8							1		5				3	9	163
EZ-27G-1-1	LC	Azote	Azote Naranja	Azote		1	10					1	2			2				6	11	180
EZ-27G-1-1	LC	Color Diferenciado	Variegated	ND			5						3			1				1	5	60
EZ-27G-1-1	LC	Tinaja	Tinaja Rojo	Tinaja	8	1	27					3	9	2	1	5				16	36	1344
EZ-27G-1-2	LC	Tinaja	Tinaja Rojo	Tinaja				1								1					1	48
EZ-27G-1-2	LC	Erosionado	Erosionado	Erosionado	1		2							1		2					3	55
EZ-27G-1-2	LC	Posible Policromo	Posible Policromo	Posible Policromo			2									1				1	2	30
EZ-27G-1-2	LC	Saxche-Palmar	Leona rojo/Naranja	Leona			3						2							1	3	18
EZ-27G-1-2	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	1									1							1	12
EZ-27G-1-3	LC	Erosionado	Erosionado	Erosionado	1		1							1						1	2	2
EZ-27G-1-3	LC	Encanto	Encanto Estriado	Encanto			3						3								3	40
EZ-27G-1-3	LC	Maquina	Maquina café	Maquina			1													1	1	2
EZ-27H-1-1	LC	Erosionado	Erosionado	Erosionado			15													15	15	149
EZ-27H-1-1	LC	Tinaja	Tinaja Rojo	Tinaja			1						1								1	15
EZ-27H-1-2	LC	Erosionado	Erosionado	Erosionado	1		20													21	21	415
EZ-27H-1-2	LC	Azote	Azote Naranja	Azote			2													2	2	80
EZ-27H-1-2	LC	Tinaja	Tinaja Rojo	Tinaja			1									1					1	12
EZ-27H-1-3	LC	Erosionado	Erosionado	Erosionado	1		20	1						1						21	22	570
EZ-27H-1-3	LC	Cambio	Cambio Sin Engobe	Cambio			2						2								2	127
EZ-27H-1-3	LC	Encanto	Encanto Estriado	Encanto			2						2								2	70
EZ-27H-1-3	LC	Tinaja	Tinaja Rojo	Tinaja	1		9						5	1		4					10	194
EZ-27H-1-3	LC	Azote	Azote Naranja	Azote	1		1													2	2	18
EZ-27H-1-3	LC	Infierno	Infierno Negro	Infierno	1									1							1	23
EZ-27H-1-3	LC	Maquina	Maquina café	Maquina			2						2								2	25
IR-58A-1-1	EC-LC	Posible Policromo	Posible Policromo	Posible Policromo	4		31	3	2			3		2	3	26				6	40	388
IR-58A-1-1	EC-LC	Cambio	Cambio Sin Engobe	Cambio	5							5									5	
IR-58A-1-1	EC-LC	Quintal	Quintal Sin Engobe	Quintal	2							2									2	10
IR-58A-1-1	EC-LC	Quintal/Cambio	Sin Engobe ND	Sin Engobe ND	3	7	83			1		1	83	1						2	94	2,234
IR-58A-1-1	EC-LC	Quintal/Cambio	Sin Engobe ND	Con Baño	1	1	4					5			1						6	
IR-58A-1-1	EC-LC	Sin Engobe Estriado NI	Sin Engobe Estriado ND	Sin Engobe Estriado	1	7	74					8	74								82	1653
IR-58A-1-1	EC-LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		12	2					2	3		7				3	15	102
IR-58A-1-1	EC-LC	Dos Hermanos	Dos Hermanos Rojo	Dos Hermanos	3		10					3			10						13	150
IR-58A-1-1	EC-LC	Tinaja	Camarón Inciso		1		1							1		1					2	19
IR-58A-1-1	EC-LC	Tinaja	Camarón Inciso	Corozal			1													1	1	7
IR-58A-1-1	EC-LC	Tinaja	Chaquiste Impreso	Chaquiste	2		2							4							4	237
IR-58A-1-1	EC-LC	Tinaja	Chaquiste Impreso	Impreso Lineas ND	2									2							2	130
IR-58A-1-1	EC-LC	Tinaja	Tinaja Rojo	Tinaja	3		61					1	33	2		18				10	64	1028
IR-58A-1-1	EC-LC	Color Diferenciado	Variegated	ND	1		11						1	1		4				6	12	131
IR-58A-1-1	EC-LC	Zacatal	Petkanche	Petkanche			2							2							2	23
IR-58A-1-1	EC-LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Anonal	2		2							4							4	92
IR-58A-1-1	EC-LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Miel Amarillo			9							9							9	47
IR-58A-1-1	EC-LC	Zacatal	Zacatal Crema Policromo	Miel Amarillo			2							2							2	4
IR-58A-1-1	EC-LC	Santa Rosa	Mataculebra	Zotz Rojo	2										2						2	100
IR-58A-1-1	EC-LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Posible Zotz Rojo	1		1	2						1	3						5	187

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
IR-58A-1-1	EC-LC	Zacatal	Zacatal Crema Policromo	Posible Zotz Rojo	2		5							7							7	40
IR-58A-1-1	EC-LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori	6		5							5	3					3	11	103
IR-58A-1-1	EC-LC	Saxche-Palmar	Leona Rojo/Naranja	Leona	3		6	2						6		4				1	11	55
IR-58A-1-1	EC-LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	18		23	2					1	23	2	10				7	43	678
IR-58A-1-1	EC-LC	Aguila	Aguila Naranja	Aguila	1		6	2				1	2			1				5	9	285
IR-58A-1-1	EC-LC	Balanza	Balanza Negro	Balanza			2	1								3					3	21
IR-58A-1-1	EC-LC	Balanza	Paradero Acanalado	Paradero				1						1							1	17
IR-58A-1-1	EC-LC	Negro ND	Negro ND	Negro ND			11						4							7	11	83
IR-58A-1-1	EC-LC	Café ND	Café ND	Café ND			9						1			1				7	9	100
IR-58A-1-1	EC-LC	Maquina	Maquina Café	Maquina	1		1					1	1								2	268
IR-58A-1-1	EC-LC	Pucte	Pucte Café	Pucte		1	1					1	1								2	5
IR-58A-1-1	EC-LC	Pucte	Santa Teresa Inciso	Santa Teresa			1						1								1	2
IR-58A-1-1	EC-LC	Zacatal	Paixban Ante Policromo	Paixban	1		2							2					1		3	345
IR-58A-1-1	EC-LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac	3		3							5	1						6	57
IR-58A-1-1	EC-LC	Erosionado	Erosionado	Erosionado	13	1	87	2	6	2				4	18					88	111	1482
IR-58A-2-1	EC-LC	Posible Policromo	Posible Policromo	Posible Policromo			6						1			5					6	22
IR-58A-2-1	EC-LC	Gris ND	Gris ND	Gris ND			1						1								1	28
IR-58A-2-1	EC-LC	Quintal/Cambio	Sin Engobe ND	Sin Engobe ND	7	4	57					6	62								68	1354
IR-58A-2-1	EC-LC	Cambio	Cambio Sin Engobe	Cambio	9							9									9	304
IR-58A-2-1	EC-LC	Quintal	Quintal Sin Engobe	Quintal	1							1									1	18
IR-58A-2-1	EC-LC	Quintal/Cambio	Sin Engobe ND Inciso	ND			2									2					2	22
IR-58A-2-1	EC-LC	Chablekal	Chicxulub Inciso	Chicxulub						1				1							1	402
IR-58A-2-1	EC-LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1		7						1			7					8	28
IR-58A-2-1	EC-LC	Tinaja	Chaquiste Impreso	Chaquiste	1									1							1	54
IR-58A-2-1	EC-LC	Tinaja	Tinaja Rojo	Tinaja	3	1	37						36	1		4					41	440
IR-58A-2-1	EC-LC	Dos Hermanos	Dos Hermanos Rojo	Dos Hermanos	1	1	6						3		3	2					8	121
IR-58A-2-1	EC-LC	Rojo ND	Rojo ND	Rojo ND	1		17	2					8		1	9				2	20	508
IR-58A-2-1	EC-LC	Naranja ND	Naranja ND	Naranja ND			10						3	4	3						10	104
IR-58A-2-1	EC-LC	Saxche-Palmar	Leona Rojo/Naranja	Leona			7						1		1	5					7	49
IR-58A-2-1	EC-LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Resist			1									1					1	10
IR-58A-2-1	EC-LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar	9		12	4					2	15	8						25	241
IR-58A-2-1	EC-LC	Saxche-Palmar	Chantuori Negro/Naranja	Chantuori	4		4							5	3						8	98
IR-58A-2-1	EC-LC	Aguila	Aguila Naranja	Aguila	4	1	16	2					8	10	4					1	23	145
IR-58A-2-1	EC-LC	Balanza	Paradero Acanalado	Paradero						1										1	1	5
IR-58A-2-1	EC-LC	Balanza	Balanza Negro	Balanza			3						2			1					3	18
IR-58A-2-1	EC-LC	Negro ND	Negro ND	Negro ND			10						8			2					10	167
IR-58A-2-1	EC-LC	Balanza	Lucha Inciso	Balanza			1							1							1	15
IR-58A-2-1	EC-LC	Café ND	Café ND	Café ND	1		15	1					9			8					17	221
IR-58A-2-1	EC-LC	Maquina	Maquina Café	Maquina			10						6			4					10	60
IR-58A-2-1	EC-LC	Pucte	Pucte Café	Pucte			3						1			2					3	13
IR-58A-2-1	EC-LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac			1									1					1	6
IR-58A-2-1	EC-LC	Zacatal	Chinos Negro/Crema	Chinos	1		1							2							2	7
IR-58A-2-1	EC-LC	Zacatal	Paixban Ante Policromo	Paixban	2		5							7							7	20
IR-58A-2-1	EC-LC	Sin Engobe Estriado NI	Sin Engobe Estriado ND	Sin Engobe Estriado		1	106						107								107	1541
IR-58A-2-1	EC-LC	Erosionado	Erosionado	Erosionado	11	4	95	3	2				8	2	2	9				94	115	1228
IR-58B-1-1	LC	Posible Policromo	Posible Policromo	Posible Policromo			2						1			1					2	9
IR-58B-1-1	LC	Sin Engobe ND	Sin Engobe ND	Sin Engobe ND	1		2				1		2								3	28
IR-58B-1-1	LC	Negro ND	Negro ND Variegated	ND			2						2								2	12
IR-58B-1-1	LC	Naranja ND	Naranja ND	Naranja ND			1								1						1	24
IR-58B-1-1	LC	Rojo ND	Rojo ND	Rojo ND			4						3			1					4	20
IR-58B-1-1	LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			5	1						1		2				3	6	40
IR-58B-1-1	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar			2									1				1	2	10
IR-58B-1-1	LC	Sin Engobe Estriado NI	Sin Engobe Estriado ND	Sin Engobe Estriado			6						6								6	45
IR-58B-1-1	LC	Erosionado	Erosionado	Erosionado	1		2													3	3	17
IR-58B-2-1	EC	Sin Engobe ND	Sin Engobe ND	Sin Engobe ND		1	2				1		2								3	121
IR-58B-2-1	EC	Balanza	Lucha Inciso	Balanza			1						1								1	5
IR-58B-2-1	EC	Aguila	Aguila Naranja	Aguila			2						2								2	19
IR-58B-2-1	EC	Rojo ND	Rojo ND	Rojo ND	1	1	5				1		6								7	253
IR-58B-2-1	EC	Café ND	Café ND	Café ND			3						3								3	16
IR-58B-2-1	EC	Erosionado	Erosionado	Erosionado			3	1		1				1						4	5	73

Provenience	Date of Lot	Grupo	Type	Variety	Rim	Neck	Body	Base	Foot	Other	Tecomate	Olla/Cantaro	T/O/C	Bowl/Vase	Plate	B/V/P	Miniature	Censer	Drum	Other	Count	Weight (g)
IR-58B-2-1	EC	Sin Engobe Estriado NI	Sin Engobe Estriado ND	Sin Engobe Estriado		1	3				1		3								4	395
IR-58C-1-1	LC	Cambio	Cambio Sin Engobe	Cambio		1	2						3								3	29
IR-58C-1-1	LC	Erosionado	Erosionado	Erosionado	3		7	1				1				1				9	11	200
IR-58C-1-1	LC	Azote	Azote Naranja	Azote			2													2	2	19
IR-58C-1-1	LC	Maquina	Canoa Inciso	Canoa	1									1							1	41
IR-58C-1-2	ND	Erosionado	Erosionado	Erosionado			10													10	10	95
IR-58C-1-2	ND	Rojo ND	Rojo ND	Rojo ND		1	1						1							1	2	20
IR-58C-1-3	ND	Sin Engobe ND	Sin Engobe ND	Sin Engobe ND	2		3					2	3								5	79
IR-58C-1-3	ND	Sin Engobe ND	Sin Engobe ND	Con Baño			1						1								1	6
IR-58C-1-3	ND	Erosionado	Erosionado	Erosionado		1	11													12	12	210
IR-58C-1-3	ND	Sin Engobe Estriado NI	Sin Engobe Estriado ND	Sin Engobe Estriado			10						10								10	82
IR-58C-1-3	ND	Naranja ND	Naranja ND	Naranja ND	1		2						1			2					3	37
IR-58C-1-3	ND	Rojo ND	Rojo ND	Rojo ND			2						1			1					2	19
IR-58C-1-3	ND	Café ND	Café ND	Café ND	1		1									1				1	2	15
IR-58D-1-1	PS	Cambio	Cambio Sin Engobe	Cambio		1	4					1	4								5	74
IR-58D-1-1	PS	Erosionado	Erosionado	Erosionado			4			1										5	5	59
IR-58D-1-1	PS	Encanto	Encanto Estriado	Encanto			5						5								5	127
IR-58D-1-1	PS	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado			1													1	1	17
IR-58D-1-1	PS	Naranja ND	Naranja ND	Naranja ND			1						1								1	10
IR-58D-1-1	PS	Macchiato	Macchiato Café	Macchiato			1													1	1	7
IR-58D-1-1	PS	Fulano	Fulano Negro	Fulano			1													1	1	6
IR-58D-1-2	PS	Cambio	Cambio Sin Engobe	Cambio		1	2	1					2							2	4	18
IR-58D-1-2	PS	Erosionado	Erosionado	Erosionado	1		3													4	4	106
IR-58D-1-2	PS	Encanto	Encanto Estriado	Encanto			4						4								4	69
IR-58D-1-2	PS	Naranja ND	Naranja ND	Naranja ND			1						1								1	6
IR-58D-1-2	PS	Rojo ND	Rojo ND	Rojo ND			3						1							2	3	34
IR-58D-1-2	PS	Rojo ND	Rojo ND Inciso	ND	1											1					1	10
IR-58D-1-2	PS	Macchiato	Macchiato Café	Macchiato	1	1	2		1				2		1	2					5	112
IR-58D-1-3	LC	Cambio	Cambio Sin Engobe	Bañado			5						5								5	44
IR-58D-1-3	LC	Cambio	Cambio Sin Engobe	Cambio	2	2	19					4	19								23	679
IR-58D-1-3	LC	Erosionado	Erosionado	Erosionado	2		17	2								3				18	21	245
IR-58D-1-3	LC	Encanto	Encanto Estriado	Encanto		1	13					1	13								14	337
IR-58D-1-3	LC	Maquina	Maquina Café	Maquina	1		1				1		1								2	310
IR-58D-1-3	LC	Tinaja	Tinaja Rojo	Tinaja		1	5					1	4			1					6	321
IR-58D-1-3	LC	Infierno	Infierno Negro	Infierno	1		3						3	1							4	103
IR-58D-1-3	LC	Azote	Azote Naranja	Azote	1		6						2	1		4					7	207
IR-58D-1-3	LC	Saxche-Palmar	Saxche-Palmar Naranja Policromo	Saxche-Palmar																	0	3
IR-58D-1-4	LC	Cambio	Cambio Sin Engobe	Cambio	1	2	2					3	2								5	111
IR-58D-1-4	LC	Zacatal	Zacatal Crema Policromo	Zacatal-Joyac				1						1							1	73
IR-58D-1-4	LC	Encanto	Encanto Estriado	Encanto			1						1								1	18
IR-58D-1-4	LC	Tinaja	Tinaja Rojo	Tinaja			3						1			1				1	3	27
IR-62A-1-1	EC-LC	Quintal/Cambio	Sin Engobe ND	Sin Engobe ND	2							2									2	10
IR-62A-1-1	EC-LC	Erosionado	Erosionado	Erosionado	5	1	24			1		1			1	5				24	31	
IR-62A-1-1	EC-LC	Policromo Erosionado	Policromo Erosionado	Policromo Erosionado	1					1				2							2	
IR-62A-1-1	EC-LC	Sin Engobe Estriado NI	Sin Engobe Estriado ND	Sin Engobe Estriado			4						4								4	
IR-62A-1-1	EC-LC	Tinaja	Tinaja Rojo	Tinaja			3	1					2			2					4	
IR-62A-1-1	EC-LC	Azote	Azote Naranja	Azote			1									1					1	
IR-62A-1-1	EC-LC	Aguila	Aguila Naranja	Aguila			1									1					1	
IR-62A-1-1	EC-LC	Balanza	Balanza Negro	Balanza						1										1	1	
IR-62A-1-1	EC-LC	Negro ND	Negro ND	Negro ND			2						2								2	

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