CONTEXTUALIZING XUNANTUNICH IN THE LATE CLASSIC UPPER BELIZE VALLEY THROUGH INVESTIGATIONS OF STRUCTURE A9

by Diane Lynn Slocum

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Committee:

Jaime J. Awe, PhD, Chair

Shawn G. Morton, PhD

Michelle A. Parsons, PhD

ABSTRACT

CONTEXTUALIZING XUNANTUNICH IN THE LATE CLASSIC UPPER BELIZE VALLEY THROUGH INVESTIGATIONS OF STRUCTURE A9

DIANE LYNN SLOCUM

Following their 1990s research at Xunantunich, archaeologists with the Xunantunich Archaeological Project (XAP) hypothesized that this Upper Belize Valley site rose rapidly from a minor political center to a powerful regional polity during the Late Classic period (AD 600-900). The XAP researchers further suggested that this rapid rise was influenced by Xunantunich's relationship with the more powerful polity of Naranjo in the nearby Petén Department of Guatemala. Their argument was based in part on a Late Classic period building program at Xunantunich, which, they claimed, resulted in a site layout that resembles that of Naranjo. In this thesis, I investigate Structure A9, a Late Classic temple-pyramid in Xunantunich's civic-ceremonial center. Through the excavation of Structure A9 and the analysis of architectural and cultural remains recovered from this and other structures previously excavated at Xunantunich, I examine whether A9 provides evidence to support the late and rapid development of the center, the structure's regional and local sociopolitical significance, and the hypothesized influence of Naranjo on Xunantunich's dramatic Late Classic period growth. I conclude that architectural evidence from A9 and other structures in the site core support the argument for the site's unprecedented, late development, and two hieroglyphic panels placed in front of the structure provide strong evidence for Xunantunich having close political ties with Naranjo in the latter 7th century. Furthermore, the hieroglyphic panels and a contemporaneous

tomb within Structure A9 suggest that the pyramid was built to commemorate a specific individual associated with a geopolitical event.

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Chapter 1: Introduction

This thesis is concerned with how monumental architecture influences society and how architecture can inform us about ancient Maya politics. I analyze one monumental structure at Xunantunich, Belize, to understand regional political relationships during the Late Classic period (AD 600-900). Xunantunich is located along the modern Guatemala-Belize border in the Upper Belize Valley sub-region of western Belize in the Maya lowlands. I conducted my research as part of the Xunantunich Archaeology and Conservation (XAC) Project during the 2016 and 2017 field seasons.

Research results from the Xunantunich Archaeological Project (XAP) in the 1990s indicated Xunantunich rose rapidly to prominence during the Late Classic period and that this rise to power was likely due to Xunantunich's relationship with Naranjo, a major center located 14 km to the west in the Petén Department of Guatemala. Xunantunich's rapid and late development is unlike that of many other sites in the Belize Valley, which have long developmental sequences beginning during the Preclassic period (1100 BC-AD 200) and continuing into Late Classic times. Though Xunantunich has been studied almost continuously for more than a century, lack of textual data describing historical events or connections to other polities inhibited understanding of Xunantunich's regional relations. Previous researchers examined multiple lines of evidence to determine if Xunantunich's rise to prominence occurred during a time of autonomy or subordination to the larger center. Despite lacking direct evidence, a dominant hypothesis emerged positing that Xunantunich's late growth was likely due to Naranjo's placement of a foreign ruling family at Xunantunich as a method for exercising formal bureaucratic control over the lesser center.

This thesis reexamines the hypothesis that external rather than internal factors were responsible for Xunantunich's late, rapid development through an in-depth analysis of Structure

A9, a pyramidal mound located on the northwestern section of Xunantunich's site core. The XAC Project's 2016 investigations of Structure A9 recovered two hieroglyphic panels flanking the structure's axial stair and a large tomb containing the remains of an adult male individual and associated artifacts. I use data from Structure A9 combined with other data from the BVAR Project and the Belize Tourism Development Project (2000-2004) to examine the sociopolitical significance of the structure. My analysis places the structure in a temporal and political context in the Xunantunich civic-ceremonial center and contextualizes Xunantunich in the Late Classic Upper Belize Valley.

The Upper Belize Valley Interaction Sphere

The Upper Belize Valley Interaction Sphere, referred to in this thesis as the Upper Belize Valley, is a cultural sub-region of the Maya Lowlands and encompasses a relatively continuous ancient settlement system along the Belize River and its many tributaries (Figure 1). Located in western Belize, the Upper Belize Valley is bordered by the Maya Mountains to the south and the Yalbac hills to the north. The Caribbean shoreline defines the eastern boundary and the confluence of the Mopan and Chiquibul Rivers define the western boundary (Helmke and Awe 2012).

Building on Bullard's (1960) description of settlement hierarchy in the northwestern Petén region of the Maya Lowlands, David Driver and James Garber (2004) characterized Upper Belize Valley settlement in terms of a three-tiered hierarchy of site types. The lowest level or hamlet is a discreet cluster of five to ten house mounds. Second-level settlements are referred to as minor centers and typically have one or more small temples, but lack stela, altars, or ballcourts and are smaller than major centers. Major monumental centers are characterized by multiple plazas, multi-room palaces, stelae, altars, and ballcourts. While Driver and Garber (2004), as

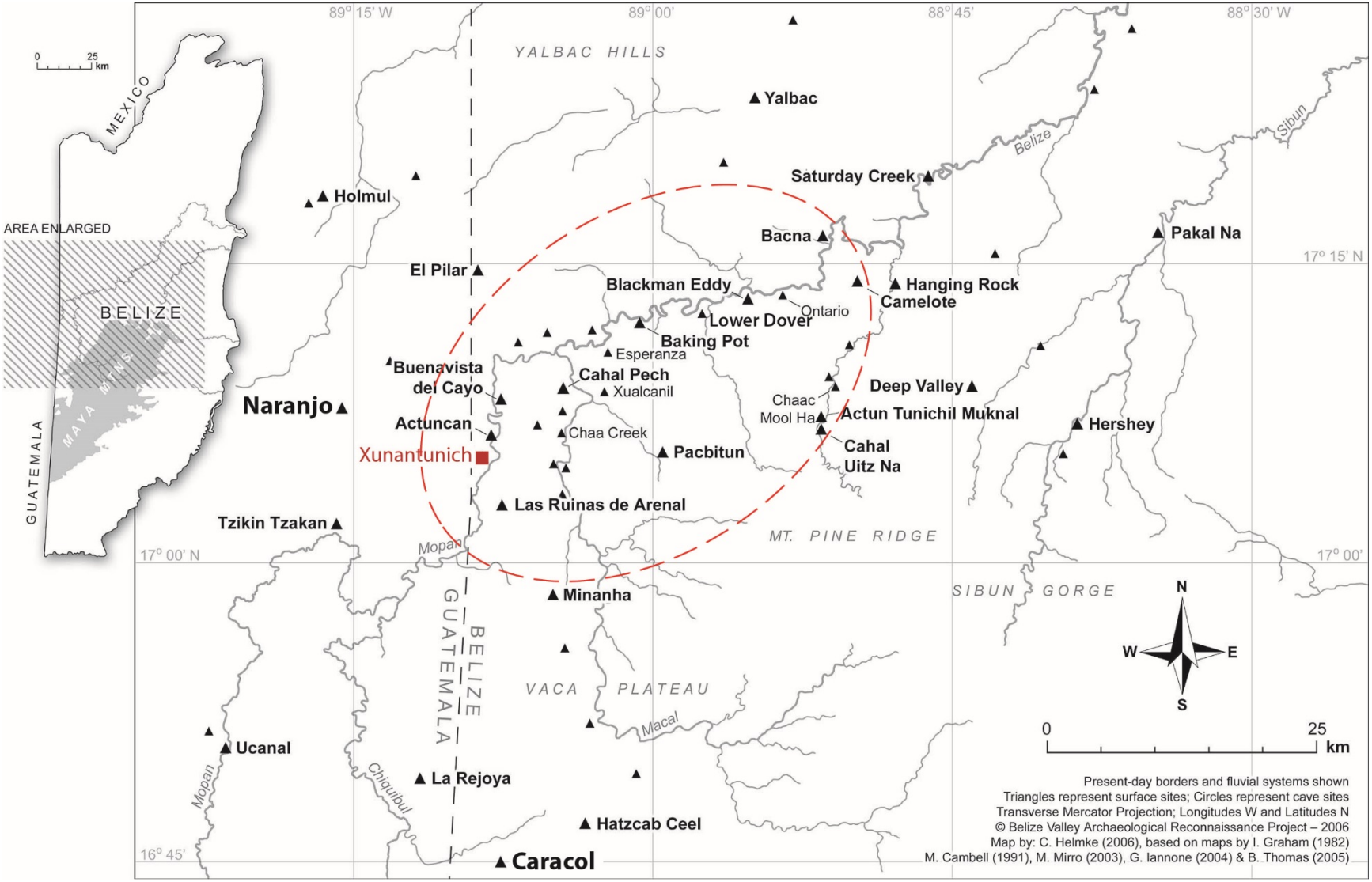

Figure 1. Upper Belize Valley Classic period centers (after map by Christophe Helmke). The dashed red line indicates approximate area of the Upper Belize Valley Interaction Sphere.

well as more recent investigations (Awe et al. 2014; Helmke and Awe 2012; Walden et al. 2018), propose a more complex image of sociopolitical relations and settlement patterns in the region, the Upper Belize Valley settlement system is generally understood as a combination of these three settlement types. Major and minor centers were largely autonomous yet interconnected. Within this greater settlement hierarchy, Xunantunich is a major center along with other sites such as Buenavista del Cayo, Cahal Pech, and Baking Pot (Driver and Garber 2004). Other much larger neighboring sites, which I refer to as primary centers in this thesis, include Caracol to the south and Naranjo to the west, both of which were the seats of well-documented dynastic traditions (Martin and Grube 2008). Epigraphic evidence documents conflicts that suggest Naranjo may have vied for control over the sub-region with Caracol (Audet 2006; Helmke and Awe 2012, 2016a, 2016b). The constant struggle for power among these larger centers may have affected both the political and economic success of centers such as Xunantunich (Audet 2006:7).

Political organization of the Upper Belize Valley. Interpretations of Upper Belize Valley political organization stem from previous discussions of Classic Maya political organization, which have debated whether Maya states were centralized or decentralized (Iannone 2002; LeCount and Yaeger 2010c; Marken and Fitzsimmons 2015). Models of centralized states hold that such states should display high degrees of social and political differentiation and have a high degree of integration across the hierarchical structure. In contrast, proponents of decentralized models argue that Maya states should reflect a high degree of structural redundancy and dispersed power relations (Iannone 2002). In western Belize, Arlen and Diane Chase (1996, 1998) have used a regional state model—a type of centralized model—to describe political organization based on their archaeological work at the site of Caracol. Other researchers (Ball and Taschek 1991) suggest that a version of the segmentary-state model—a decentralized model

originally proposed by Southall (1956)—best exemplifies the political organization in western Belize during the Late Classic period.

More recently, there has been an emerging agreement that neither a centralized nor a decentralized model can be applied evenly across the Maya Lowlands (LeCount and Yeager 2010c). Instead, models that account for variation in relationships of sites across time and space better explain ancient Maya political organization (Demarest 1996; Sharer and Golden 2004; Potter and King 1995; Marcus 1998). One example of this new approach is Joyce Marcus' dynamic model (1993, 1998), which proposes that political organization of the ancient Maya cycled from territorially extensive, centralized states to decentralized, semiautonomous provinces. Marcus suggests that this cycling of political control occurred throughout the Maya Lowlands during the Classic period. Unlike previous static models, the dynamic model accounts for change over time. Marcus (1993) presents ethnographic evidence from sixteenth century accounts of early Spanish contact to construct the dynamic model and draws on information from hieroglyphic texts and archaeological data in her evaluation of the dynamic model as applied to the Classic Maya. In the Upper Belize Valley, centers likely cycled through periods of prominence and decline, and power may have continually shifted from one polity to the next (Helmke and Awe 2012; Leventhal and Ashmore 2004; Taschek and Ball 1999, 2004).

Xunantunich's Political Development in the Upper Belize Valley

In the case of Xunantunich, previous researchers (LeCount and Yaeger 2010a,b,c) suggest that data recovered from the site strongly conform to Joyce Marcus' (1993, 1998) dynamic model of the build-up and breakdown of Maya states. LeCount and Yaeger (2010b) argue that Xunantunich's rise to prominence in the Late Classic period follows the previous rise and fall of two other local centers. These include Actuncan from the Late Preclassic to Early

Classic periods and Buena Vista del Cayo from the Early Classic to Early Late Classic periods. LeCount and Yaeger further propose, based on theories of incorporation strategies, that Xunantunich's rise was influenced by relationships with the larger primary center of Naranjo. They note that incorporation strategies vary depending on the level of control exercised by the dominant polity and can be broken into four distinct categories: patron-client, independent ally, dependent ally, and direct-rule relationships (LeCount and Yaeger 2010c). In patron-client or independent ally relationships, the lesser polity is largely autonomous, whereas in a dependent ally or direct control relationship, the dominant polity exercises greater amounts of control over the lesser polity.

The researchers with the Xunantunich Archaeological Project reassessed Xunantunich's ceramic chronology (Figure 2), and this became a central component for a refined understanding of Xunantunich's development in the Late Classic period (Leventhal et al. 2010). Previous researchers (LeCount and Yaeger 2010b) argue that Xunantunich was a provincial capital in the eastern Maya Lowlands, initially rising from a minor political center to a powerful polity because of either a patron-client or independent ally relationship with Naranjo during the Samal phase (AD 600-670). During the following Hats' Chaak phase (AD 670-780), they suggest that Naranjo exercised more formal control through placement of a ruling family from the Petén and incorporated Xunantunich into a multi-polity state (LeCount and Yaeger 2010b). Their argument for Naranjo's dominant influence on Xunantunich was based in part on the establishment of a new palace complex at the north end of the site, a new site layout that resembled that of sites in the eastern Petén, new rulership displays of a distinctly Petén character, similarities in ceramic serving wares between the two sites, and the congruent timelines of the two sites. They further

argue that Naranjo's authority eventually began to wane during the late Hats' Chaak phase, allowing Xunantunich to fully regain its autonomy in the Tsak' phase (AD 780-890).

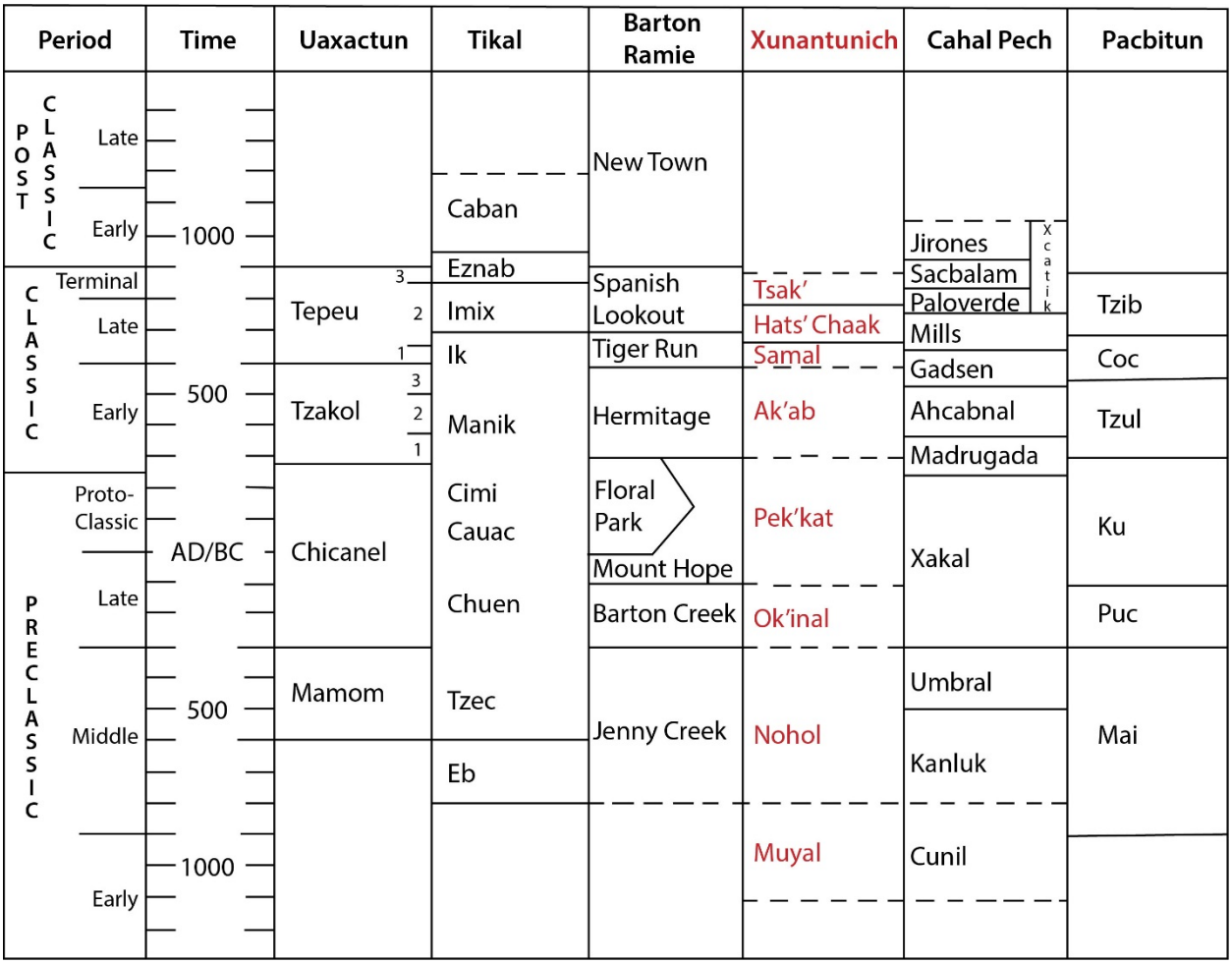

Figure 2. Xunantunich's ceramic chronology in relation to other nearby Upper Belize Valley centers and other major centers in the Maya Lowlands (after Leventhal et al. 2010, Figure 1.4).

Research Significance

In this thesis, I build on and reexamine some of the results of previous research conducted at Xunantunich. I examine the application of a model of incorporation strategies for understanding unequal relationships between centers in the Maya area, a technique that is still in the process of development (LeCount and Yaeger 2010b). My work builds on this model both in the context of its use at Xunantunich and its use for considering political relationships in the Maya lowlands. This study also elucidates how studies of monumental architecture can

contribute to our knowledge of the political histories of ancient sites. The ancient Maya not only created monumental buildings, but monumental architecture reflected cultural ideologies and influenced past human society (Awe 2008; Moore 1996:10). I approach the analysis of Structure A9 and the Xunantunich site core with the recognition that the public architecture at this civic-ceremonial center was built to project local and regional power. Identifying the source of this power may lead to a better understanding of social and political relationships. A few of the buildings in the Xunantunich site core have been examined in detail to provide specific political accounts. Yaeger (2010) uses results from a thorough analysis of Structure A11 (part of the north palace complex) to argue that a family associated with the Petén resided and exercised authority over Xunantunich in the early Hats' Chaak phase and subsequently fell from power at the end of the Hats' Chaak. Leventhal (2010) argues that the largest structure at Xunantunich (El Castillo) provides additional evidence for changes in political authority and in the location of the ruler's palace in the site core. Many structures, including Structure A9, however, have received limited archaeological attention, and their dates of construction have not been placed temporally within the site core development.

Despite Xunantunich being one of the most excavated sites in the Upper Belize Valley, the site continues to yield archaeological data that is contributing additional insight to existing interpretations. My research looks at a particular structure and what it tells us about a specific historical and political context in the Upper Belize Valley region during the latter part of the Late Classic period. While examining one structure cannot explain the entirety of the nature of the development of any site, placing the information derived from these investigations into the larger context of development of the Xunantunich site core and considering how those data relate to

previous interpretations adds an important piece to the larger picture of Xunantunich's development and regional political relations.

My research also contributes to our understanding of ancient Maya political organization at the polity-to-polity level. Specific details of Maya political organization and relationships among sites across the Maya lowlands are still not fully understood. Maya political strategies likely varied across time and space. While the dynamic model accounts for this variability at a large scale, Marcus (1993:170) encourages research at smaller centers as well as larger centers. Results from centers of varying sizes may yield further evidence for diverse political techniques and strategies. The dynamic model presents a general picture of political organization but cannot account for the details of each political relationship at various points in time. Much understanding of Maya political organization is based on work done at some of the largest centers such as Tikal, Calakmul, or Copan. Though Xunantunich was a major player in the Upper Belize Valley, the site was smaller than major primary centers in Belize and the Petén. This study thus contributes to the growing body of knowledge about Maya political organization through analyzing data from one of these secondary centers.

General Approach and Research Questions

To collect data from A9, I conducted my research under the auspices of the Xunantunich Archaeology and Conservation (XAC) Project (2015-2018), a sub-project of the Upper Belize Valley Archaeological Reconnaissance (BVAR) Project. The XAC Project began with two main goals: 1) to excavate and conserve the architecture of several large structures in the Xunantunich site core to enhance the tourism potential of the site, and 2) to determine the significance of the site within the Late Classic sociopolitical landscape of the Upper Belize Valley (Zanotto and Awe 2017). The XAC Project's initial goal is meant to contribute to Belize's growing tourism

economy. Today, Xunantunich is a popular tourist destination located just outside the modern-day village of San Jose Succotz. The site is open to cruise ship tourism, and large tourist groups frequently come by road to visit Xunantunich from ships that dock at Belize City. The goal of conserving the structures is to improve the visitor experience by increasing visibility of the archaeological remains. Conservation work involves the horizontal excavation of monumental architecture, as well as stabilizing and rebuilding portions of the exposed structures. Such large-scale excavations work well for examining monumental construction because they serve to fully expose architectural features that may only be partially exposed using only a few smaller (e.g., 1 m by 1 m or 1 m by 2 m) excavation units. These large-scale excavations were key to collecting data from Structure A9 and facilitated in-depth understanding of the structure's construction history and function.

To contribute to previous knowledge about Xunantunich's historical and political development, my investigations of A9 focus on determining the structure's sociopolitical role. I consider how the tangible remains of the structure may be used to understand A9's historical context. Methods I employ to determine A9's historical context include examining measurable aspects of the structure such as size, chronology, and location, and I consider how those measurable variables are interrelated and correspond to other data from Xunantunich and the political regional context.

My overarching research question is: What is the sociopolitical significance of Structure A9 within the Late Classic Xunantunich context?

To answer this question, I consider the following sub-questions:

1) Was Structure A9 rapidly constructed during the Samal or Hats' Chaak phase?

To address this question, data requirements include samples, artifacts, and architectural remains that allow for determining when and how the structure was built and how it relates to other structures in the site core.

2) What does this structure tell us about the rise of Xunantunich and its relationship with Naranjo?

   To address this question, data requirements include information from hieroglyphic inscriptions at Xunantunich and the eastern lowland Maya sub-region, and evidence of imported artifacts from the Naranjo area.

Outline of Remaining Chapters

In Chapter 2, I provide a brief literature review of interpretive approaches to prehistoric monumental construction and discuss how some of those approaches have been implemented in the Maya area. I then discuss the theoretical approach I employ to investigate Structure A9. Chapter 3 provides a detailed background of investigations and results from previous archaeological work at Xunantunich. In Chapter 3, I also introduce Structure A9 and the minimal investigations conducted prior to the XAC Project investigations in 2016-2017. Results of previous investigations at A9 are further elaborated in Chapter 4 where I discuss my methodological approach, including excavations, architectural comparisons, and various techniques used to derive temporal data from the structure. In Chapter 5, I provide the results of my data collection and analysis. I conclude my discussion of Structure A9 in Chapter 6 by outlining the sociopolitical significance of the structure as understood through the analysis of material remains from the excavations, and I provide suggestions for how archaeological material from A9 may be a useful subject of future research.

Chapter 2: Approaches to Monumental Architecture and Theoretical Framework

Monumental architecture is a category of architecture that is associated with all ancient complex societies and includes public buildings, large houses, and special purpose structures (Trigger 1990). In the Maya area, monumental structures include palaces, administrative buildings, temples, observatories, fortifications, and tombs. Monumental construction is unique in part because its size and quality exceed a structure's intended practical function (Trigger 1990). In this chapter, I explore general approaches to monumental architecture that often cross-cut studies of the *built environment*, a concept used to refer broadly to any human alteration of the natural environment (Lawrence and Low 1990:454). I then present a theoretical approach to investigating A9 in which I consider how A9 may have functioned to communicate status and political power during Xunantunich's rapid development.

Archaeological Approaches to Monumental Architecture

To study architecture, archaeologists may use culture-historical methodologies, which employ architectural attributes and comparisons to examine cultural changes across space and time. Beyond culture-historical methodologies, specific approaches to monumental architecture may vary depending on a researcher's questions and objectives. Approaches to monumental architecture may include investigating the sociopolitical process of building a structure or they may explore sociopolitical, ritual, symbolic, and functional aspects of a structure's use-life. Many archaeologists often use a combination of these approaches.

Approaches to investigating monumental architecture may also be thought of in terms of temporal scale, such as the time to build the structure and the time the structure was in use (Burger and Rosenswig 2012:4). Investigating the time the structure was in use may entail understanding how the structure varied in function or meaning through time. In the following

sections, I examine several approaches to studying monumental construction. While this examination does not include all possible approaches, I highlight some of the more common approaches to studying monumentality used in the Maya Lowlands. The methods include an emphasis on the building process, the socio-functional approach, analyses of architecture to tell political histories, and symbolic approaches.

The building process. Studies of the monumental building process explain how organizing a large labor force demonstrates the ability to control resources and exercise power. This approach may be used to interpret the amount of labor expended during construction and construction methods. Architectural energetics (Abrams 1989, 1994; Abrams and Bolland 1999) is an approach that measures the estimated cost of building a structure in labor-time units. The building cost is estimated based on observations of the time it takes to complete specific building activities. Data for determining building costs may be derived by conducting timed experiments of building activities or observing the time builders take to complete similar modern construction or reconstruction projects. While the amount of labor or 'cost' may be correlated with power, Abrams and Bolland (1999) caution that the correlation of cost and power may be conditional depending on variables such as differential group size and length of construction process. The correlation between cost and power is generally positive where there is strong evidence for nonegalitarian social relations. Abrams and Bolland (1999) use architectural energetics as a comparative method to investigate monumental construction at Copan, Honduras. Architectural energetics may also be combined with other methodologies to illuminate various social aspects of the construction process. In a case study of El Castillo, the most prominent structure at Xunantunich, architectural energetics combined with analysis of construction sequences, virtual reconstruction, and the issue of labor from a community perspective is used to predict the impact

the public building process had on laborers who were part of the surrounding community (McCurdy 2016).

Bruce Trigger (1990), like those who employ architectural energetics approaches, argues that labor forces are a type of energy, and control of such energy provides a means to measure power. Trigger argues that monumental architecture is a form of conspicuous consumption because building large structures uses energy excessively to enhance prestige and therefore is a symbol of power. The ability to exercise power is further reflected in monumental construction because the lesser status of individuals who contributed to constructing a monument is often reinforced during the building process (Trigger 1990:125). Investigating the building process is also critical for obtaining a more complete picture of a structure. For example, funerary architecture, in particular, may reinforce the status of a ruler and the state, but examining only a structure's function may fail to explain how that status was achieved (Trigger 1990: 124). Techniques that focus on the building process may be combined with socio-functional and symbolic approaches that emphasize how architecture reflects and impacts society.

Socio-functional approach. A socio-functional approach explores how building functions relate to aspects of culture such as politics, social organization, economic structure, and ideology (McCurdy 2016). From a social historical perspective, buildings are not only constructed as a result of environmental factors, but also as a result of a society's ideas or social organization (King 1980). The socio-functional approach goes beyond a basic functional approach by considering how the structure of the society that built the monuments may have influenced or is reflected in the construction of the monuments. Renfrew (1983), for example, uses what he calls a 'social archaeology' approach in which he examines the spatial and temporal contexts of monuments to elucidate social motives for erecting some of the earliest megalithic monuments in

Eastern Europe. Renfrew (1983) examines the spatial distribution and scale of Stonehenge in Wessex to determine the "underlying social ranking within the society itself" (157). He argues that central organization such as a chiefdom would have been necessary to organize labor for a monument such as Stonehenge. Moore (1996) employs a 'holistic' approach to determine how public construction functioned in politics and religion in Peruvian society. To analyze ritual architecture, Moore (1996:140) determines five criteria that may be used to identify social behaviors associated with ritual structures: centrality, permanence, visibility, scale, and ubiquity. Chase and Chase (2017) use Moore's criteria, plus the criterion of accessibility, to determine function and changes in social and political power at Caana, the largest structure at Caracol, Belize. These socio-functional criteria may be as important as the use of style and form for understanding how structures functioned.

Political approach. Investigations of Maya architecture can provide evidence of political organization and development at sites or regions. Chase and Chase (1996) argue that at Caracol, Belize, causeways linking termini groups to central plaza areas likely served an integrative function and reflect a highly centralized political structure; likewise, the proportionately larger number of tombs and hieroglyphic inscriptions in the site center also reflect a hierarchical political structure. They conclude that these architectural elements provide support that Caracol was the center of a centralized state.

Studies of architecture may also focus on specific structures to shed light on specific events or time periods that are relevant to political histories of sites. In an examination of the unfinished structure L8-8 at Aguateca, Guatemala, Inomata and colleagues (2004) are able to not only learn about ancient construction methods and labor organization, but also provide additional evidence that Aguateca was rapidly abandoned due to an attack. Such smaller-scale studies of

monumental architecture may illuminate local political histories that ultimately contribute to pictures of large-scale regional political organization.

Symbolic approach. A symbolic approach in the study of monumental architecture explores potential meanings of built forms, how built forms express that meaning, and how that meaning relates to intangible aspects of social structures (Lawrence and Low 1990:466). Some approaches to symbolic studies include phenomenological approaches, structuralist approaches, considerations of metaphoric and mnemonic functions, ideological approaches, and emphases on how built forms communicate social and political status. Ideological approaches and communication approaches are commonly used in the study of monumental architectural in the Maya Lowlands.

Monumental structures in the Maya Lowlands may reflect ideology in several ways. Pyramidal structures, for example, represent *witz* or sacred mountains for divine ancestors during the Early Classic when temple pyramids became more commonly used as funerary shrines (McAnany 2001:136). Maya tombs in general have been interpreted as having connection to the underworld (e.g., Chase and Chase 1996). Specific quantities of architectural attributes on structures also have ideological significance. For example, many Maya temple pyramids, such as Temple 1 at Tikal, have nine layers or terraces, which are thought to represent the nine levels of the underworld (McKillop 2004:239). *Audiencias*, long range-type structures that served as entry points to palace complexes and administrative areas, often have a number of doorways indicative of Maya ideology. At Cahal Pech, Xunantunich, and Caracol, for example, the audiencias have 13 doorways, reflecting the number of levels in the Maya heavens and representing the rulers' sacred or deified status (Awe 2008:163). At all three sites, each audiencia's seventh doorway, which is likely representative of the uppermost level of the heavens, is the only one by which a

person would have been able to access the elite palatial complex, thus limiting access to the elite residential area. The overall layout of Maya cities was based on ideological and cosmological concepts and served as a form of symbolic communication (Ashmore and Sabloff 2002).

In one type of symbolic approach, which Lawrence and Low (1990: 466) call "Social Symbolic Accounts," the built environment is considered "a direct expression of social or political structures." Accordingly, "built forms and site plans act as communicative or mnemonic devices expressing or reaffirming relationships between groups, or positions held by individuals within a culture's framework" (Lawrence and Low 1990:466). Similarly, architectural communication theory considers how designers build structures to communicate political or social messages including statements about identity, status, wealth, and power (Smith 2011). These theoretical approaches that emphasize the communicative potential of architecture provide a lens for identifying and explaining Structure A9's active role at Xunantunich in the Late Classic period.

A Theoretical Approach to Structure A9 Investigations

Architectural communication theory helps explain the reasons for building Structure A9, and this theory's emphasis on the communicative aspects of buildings highlights the many ways A9 may have influenced people. Archaeologists have used architectural communication theory in a variety of spatial and temporal contexts that range from domestic households (e.g., Blanton 1994) to monumental public works. Blanton (1989), for example, examines how architectural strategies varied as political organization changed through time at Monte Albán, Oaxaca. The architectural layout of Monte Alban's plaza groups shifted from more openly accessible spaces to more closed and formal spaces. Blanton argues that the appearance of closed, formal spaces indicated greater separation in power between elites and non-elites during certain time periods.

In the Mediterranean, Kolb (2005) studies how public monuments represent varying ways in which rulers used architecture to communicate political authority. The monuments in the Mediterranean functioned to emphasize "collective unity rather than personal aggrandizement" through communal building and ritual use (Kolb 2005:173).

The nonverbal approach in architectural communication theory. Much of the research that implements architectural communication theory uses or builds on concepts Amos Rapaport (1976, 1988, 1990) developed in relation to environmental-behavior studies (EBS), which furthers our understanding of relationships between human behavior and the built environment. Rapaport's (1990) methodological approaches to EBS are based on a theory of language communication called the nonverbal communication approach, which explains those aspects of language that are beyond the spoken word. Originally developed in the fields of anthropology and psychology, the nonverbal communication approach is concerned with how nonverbal, subtle methods communicate feelings or moods, how nonverbal behaviors provide context for verbal behaviors, and how nonverbal communication may alter interpersonal interactions (Rapaport 1990:48).

Sociocultural aspects of EBS and the nonverbal approach can best be understood through examining three fundamental questions first outlined by Rapaport (1976).

1) What characteristics of humans as members of a species and of various groups, and as individuals, influence (or, in design, should influence) how built environments are shaped?
2) What are the effects of the built environment on human behavior, well-being, mood, etc.?
3) Given such mutual interaction between people and environments, what mechanisms link them? (Rapaport 1988:318).

Rapaport further argues that all three of these questions are critical to understanding meaning. *Meaning* is often part of, rather than separate from, function and is "often the most important function of the built environment" (Rapaport 1988:318). The nonverbal approach

functions in two ways to interpret how built environments communicate. First, built environments may provide nonverbal cues for directing behavior, and second, built environments may provide nonverbal cues that assist in communicating ideology or authority (Rapaport 1990:50). These two applications of the nonverbal approach are further elaborated in Rapaport's (1988:325) discussion of how the built environment communicates meaning at three distinct levels: high-level, middle-level, and low-level.

High-level meanings are related to ideologies or philosophical systems and include basic underlying beliefs about the world. High-level meaning may be emphasized in certain types of buildings such as ritual structures or tombs (Rapaport 1988:327). As described above, ideological studies of Maya architecture that illuminate how buildings related to deities or the underworld emphasize high-level meaning. Ashmore and Sabloff's (2002) argument that ancient Maya centers, such as Xunantunich, are reflective of Maya cosmology also demonstrates how architecture may reflect high-level meaning.

Following Rapaport (1988), middle-level meanings are related to communicating identity, status, wealth, or power. Architectural communication theory most closely relates to middle-level meaning because it emphasizes what the designers intended the structure to communicate (Smith 2011). Smith argues middle-level meanings are typically examined in archaeological analyses of monumental architecture that emphasize how the variation in scale of monumental construction may be used to interpret the quantity of political or social power exercised by the elite (see Abrams 1994).

Because Structure A9 is monumental and houses a tomb, I also draw on theories of social memory to examine how A9 may have communicated middle-level meaning. Following Giddens' (1984: 4-7, 45-51) terminology, Van Dyke (2009) distinguishes between practical and

discursive memory in relation to monumental architecture. Discursive memory is the "intentional employment of ideas about the past for political and social ends" (Van Dyke 2009:222). In contrast, practical memory lacks intention and includes everyday behaviors. Monumental architecture is discursive because builders are creating memories about the past they want projected into the future (Van Dyke 2009:223). By placing A9 in a specific historical context, this study will further illuminate A9's commemorative intent.

Examining how A9 functioned to commemorate may also be understood through Rosemary Joyce's (2003) approach to memory, which draws on cognitive and social psychology (e.g., Baddeley 1990; Bjork and Bjork 1996) to examine how Maya hieroglyphic inscriptions functioned as forms of social memory. Joyce (2003) discusses how ancient public inscriptions that functioned in public spaces, where memory would typically have been explicit due to commemorative elements, relate to inscriptions in private spaces that would have been implicit and visible to a smaller select group of people. Joyce argues that public monuments were linked to memories among smaller social groups that would have known about inscribed objects within private tombs. In an example from Piedras Negras, inscribed shells that mention a woman's name are present in a burial; the same woman's name is also mentioned on stone monuments associated with the building that contains the burial (Joyce 2003:115). Joyce argues that the inscribed shells reference events that may imply a transitional period in which the woman had authority between two male rulers of the site. She further argues that the inscriptions on the shell from the burial were likely part of a costume and were likely only read by "members of an intimate group," and that this detail was not present on public monuments. While the A9 tomb does not contain inscribed material, it is still useful to explore the relationship between public

and private commemoration at A9 through investigation of how the monuments (Panels 3 and 4) on A9's exterior in a public space relate to the contents of the spatially more private A9 tomb.

Though this study of Structure A9 primarily emphasizes middle-level meaning and subsequent commemorative aspects of the structure, I also consider how A9 may have communicated what Rapaport (1988:327) refers to as "low-level meanings," which he argues are "essential in all settings." Rapaport (1988) is interested in how individuals design or influence the built environment and how the built environment impacts people—a concept more closely connected to low-level meaning. Low-level meanings include instrumental behaviors, everyday meanings that allow people to act in predictable manners, and mnemonic cues for identifying appropriate social behaviors. The mnemonic, everyday aspect of low-level meaning is more similar to practical rather than discursive memory. Low-level meanings may be highly variable, are socially constructed, and unconsciously perpetuated in people's everyday actions. Mnemonic cues from the built environment for appropriate behavior in a formal restaurant, for example, may differ from cues for appropriate behavior when casually dining at a friend's house. The difference in cues from the built environment for how to act at these two venues may be largely stylistic. A fancy restaurant may have tables where guests are expected to sit and remain throughout the meal and the kitchen may be physically separated from the dining area, whereas many American homes have more open floor plans allowing guests to move freely from the kitchen to dining area to living room couches. Such cues from the built environment do not necessarily determine behavior, but people are often likely to conform to material reminders (Rapaport 1988:327).

Summary

In this thesis, I employ architectural communication theory to shed light on the sociopolitical significance of Structure A9. My aim in investigating A9 is to determine the ancient Maya's purpose for planning and commissioning the building of the structure and the subsequent meaning the designers intended to convey. To investigate A9, I use Rapaport's (1988) three levels of meaning of the built environment. I recognize that A9 may have communicated high-level meaning or ideological aspects of Maya society and that A9 may have also communicated low-level meaning by encouraging everyday behaviors. I primarily, however, investigate how Structure A9 communicated status, identity, and power, all characteristics of middle-level meaning. Much of middle-level meaning in my approach to investigating A9 may be tied to its commemorative function, thus I draw on theories that relate architecture to social memory. Furthermore, understanding how A9 communicated power at a specific time in Xunantunich's history entails examining how A9 fits into the spatial and temporal context of Xunantunich's site core development. Chapter 4 provides more detail on methodologies for contextualizing A9 in Xunantunich's political history and exploring how Structure A9 functioned to communicate power and identity. Archaeologists have conducted a substantial amount of work at the site to provide initial context for these investigations, the results of which I present in the following chapter.

Chapter 3: Previous Research at Xunantunich and Structure A9

Xunantunich, Belize, is a Classic Maya site located in the Upper Belize Valley, an intensively studied cultural sub-region of the Maya Lowlands. In this chapter, I provide background information on Xunantunich to place Structure A9 in the context of previous research. First, I describe Xunantunich and results from previous archaeological research conducted at the site, including a description of the site's chronological framework and dynamic political history in the Late Classic period (AD 600-900). Interpretations of the site's political history are based on theories of political incorporation strategies and contribute to understanding Xunantunich's dramatic late apogee. Finally, I turn to the focus of this thesis, Structure A9, and provide background on previous research at the structure.

Xunantunich: Site Description

As one of the largest sites in the Upper Belize Valley, Xunantunich's site core covers 14 hectares (LeCount and Yeager 2010a) and is situated along the modern Guatemala-Belize border at the summit of a hill top overlooking the Mopan River. The site is centered around El Castillo (Figure 3), a massive multi-tiered structure that rises 39 m tall, and the surrounding site core includes multiple plazas, causeways, range structures, and pyramidal structures. Nearby sites that rival Xunantunich in size include Actuncan (2 km to the northeast) and Buenavista del Cayo (6 km to the northeast).

Previous Archaeological Research at Xunantunich

Previous archaeological work at Xunantunich began in the late nineteenth century, followed by intermittent investigations throughout the twentieth century, and continues today. The first person to conduct archaeological research at Xunantunich was Thomas Gann (1894-1895, 1925), a British medical doctor who had no formal archaeological training. In the early

Figure 3. El Castillo at Xunantunich (photo courtesy of Jaime Awe).

twentieth century, Sylvanias Morley (1937-1938:204-205) visited the site and illustrated the Stela 1 inscriptions and a nearby altar. In the mid-twentieth century, J. Eric S. Thompson (1942) pioneered a ceramic study at Xunantunich, and Linton Satterthwaite (1950) conducted excavations that exposed part of the eastern frieze on El Castillo. Overall, excavation and tourist interest at Xunantunich were sporadic throughout much of the early- to mid-twentieth century, and the site became a target for looters in the summer of 1979 (Pendergast and Graham 1981). Tourism became the focus of economic development in Belize in the late 1980s and early 1990s (Leventhal et al. 2010). Thus, the more recent archaeological work at Xunantunich was the result of multidisciplinary research programs that worked to perform scientific investigation as well as conserve the architecture to promote tourism. These multidisciplinary programs included the Xunantunich Archaeological Project (XAP), directed by Richard M. Leventhal and Wendy Ashmore, which performed excavations at the site core from 1991-1997. This was followed by

the government of Belize's Tourism Development Project (TDP), directed by Drs. Jaime Awe and Allan Moore, which conducted excavations and conservation work at Xunantunich from 2000-2004.

Two groups currently conduct research at Xunantunich: the Mopan Valley Preclassic Project and the Xunantunich Archaeology and Conservation (XAC) Project. The former is under the direction of Dr. Kathryn Brown of the University of Texas San Antonio and focuses on Preclassic components of early Xunantunich. The XAC Project is directed by Dr. Jaime Awe of Northern Arizona University and operates under the auspices of BVAR and the Belize Institute of Archaeology. The XAC Project focuses on the final phases of occupation at Xunantunich, particularly in the site's epicenter. Since 2015, the XAC Project's excavation and conservation work has concentrated on major structures in the site core including six pyramidal structures (A1, A2, A3, A7, A8, and A9), Structures A20 and A28 on El Castillo, Structure A13 at the south end of the north palace complex, and Group B, a residential group located just west of the main plazas (Figure 4).

Results of Previous Research: Xunantunich's Chronological Framework and Political History

Xunantunich's chronological framework is the result of ceramic seriation coupled with radiocarbon dating. The site was first occupied in the Preclassic period. A tunneling operation at the base of El Castillo (Miller 1995, 1996) recovered many sherds from the terminal Early Preclassic Cunil complex, which dates between 1100 and 900 BC (Awe 1992). Kathryn Brown et al. (2017), with the Mopan Valley Preclassic Project (2008-present), confirmed that there were two separate ceremonial centers at Xunantunich. Early Xunantunich, a smaller monumental center that was abandoned in AD 200, also dates to the Cunil phase and is located 800 m east of Classic Xunantunich (Figure 5). There is little architectural or ceramic evidence for significant

occupation of Xunantunich during the Early Classic period (AD 300-600) (LeCount and Yaeger 2010 eds.).

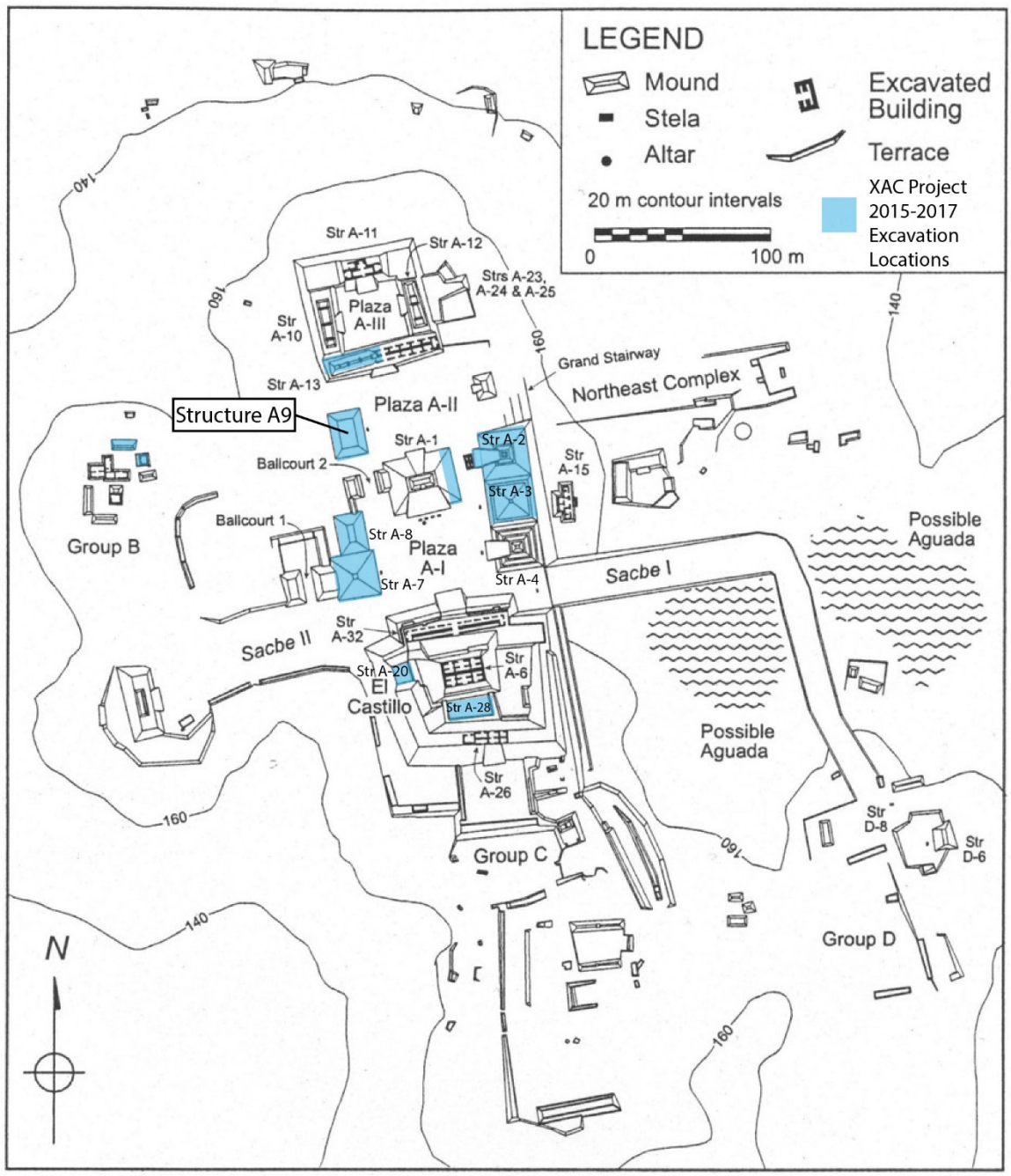

Figure 4. Xunantunich's civic-ceremonial center indicating locations of XAC Project excavations since 2015 (after Yaeger 2005).

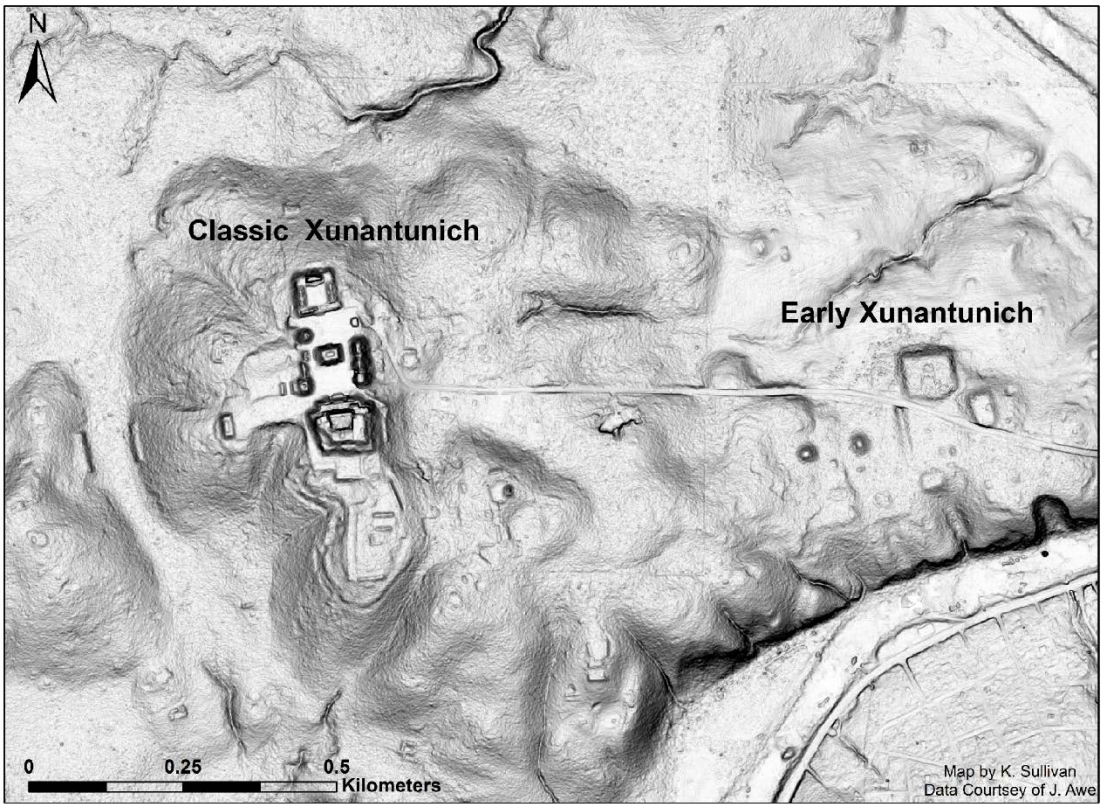

Figure 5. Lidar image showing Classic period and Early Xunantunich (map by Kelsey Sullivan, data courtesy of Jaime Awe).

Most of the data collected at Xunantunich relates to the site's apogee during the Late Classic (AD 600-780) and Terminal Classic phases (AD 780-1000). LeCount (1996; also LeCount et al. 2002) built on the foundational work of Thompson (1942) and Gifford (1976) to more finely discern Late and Terminal Classic ceramic complexes. The Late and Terminal Classic periods at Xunantunich may be partially distinguished by three distinct ceramic phases: the Samal phase (AD 600-670), the Hats' Chaak phase (AD 670-780), and the Tsak' Phase (AD 780-890).

As described in Chapter 1, previous researchers (LeCount and Yaeger 2010b) have concluded that data from Xunantunich's Late and Terminal Classic period broadly conform to Marcus' (1993, 1998) dynamic model. During the process of dynamic cycling in the Maya Lowlands, larger polities may have used various strategies to integrate lesser neighboring centers

as major centers rose to prominence. LeCount and Yaeger (2010c) study how Naranjo may have incorporated the lesser center of Xunantunich by examining archaeological correlates at Xunantunich for the four types of incorporation strategies: patron-client, independent ally, dependent ally, and direct-rule relationships. The archaeological correlates for these four strategies include the presence or absence of gift exchanges, tribute payments, foreign symbolism, marriage alliances, war events, restructured sociopolitical institutions, restructured land tenure or demographics, and restructured economic relations including markets (Table 1). LeCount and Yaeger (2010b) argue that, based on the fluctuating presence of these archaeological correlates during the Samal, Hats' Chaak, and Tsak' phases, the Xunantunich-Naranjo relationship varied through time.

Table 1. Archaeological Correlates of Incorporation Strategies for the Subordinate Polity (after LeCount and Yaeger 2010c, Table 2).

Criterion/Correlate	**Patron-client**	**Independent allies**	**Dependent allies**	**Direct-rule**
Gift exchanges	Yes	Yes	Yes	Yes
Tribute payments	None	Irregular	Regular	Regular
Foreign symbolism	Rare	Present	Imposed at highest levels	Abundant
Marriage alliances	Rare	Present	Common	Common
War events	Rare	Rare	Common	Common
Restructured sociopolitical institutions	None	None	Imposed at highest levels	Yes
Restructured land tenure or demographics	None	None	Possible	Yes
Restructured economic relations including markets	Some	Some	Likely	Yes

The Samal phase (AD 600-670). During the Samal phase, Xunantunich first became a significant center in the Upper Belize Valley as evidenced by growth in the surrounding countryside as well as an increase in architectural volume in the site center. Deep excavations in El Castillo revealed that there were early plazas, range structures, and *audiencia* buildings

indicative of a royal residence during the Samal phase (Leventhal 2010). There were also early versions of the pyramidal structures flanking Xunantunich's main plaza, including a possible E-Group on the east side of the plaza (now Structures A2, A3, and A4) and Ballcourt 2 (Jamison 2010). The site center at this time had one main plaza rather than the two largest plazas (Plaza AI and AII) present at Xunantunich today.

LeCount and Yaeger (2010b) argue that during the Samal phase Xunantunich was established as a major provincial capital because of either a patron-client or independent ally relationship with Naranjo. Regardless of the exact relationship between the two sites, they suggest that Xunantunich was likely autonomous at this time. Direct evidence for a relationship with Naranjo during the Samal phase, however, is limited to two ceramic fragments with Naranjo-style hieroglyphic text, including Naranjo's emblem glyph recovered from Samal phase fill contexts. According to LeCount and Yaeger (2010b:340), the two ceramic sherds were likely part of a vase given as a gift to Xunantunich from Naranjo. While a connection likely existed between Xunantunich and Naranjo during the Samal phase, hieroglyphic inscriptions inform us that Caracol defeated Naranjo in AD 631, and thus a weakened Naranjo would have had little influence in the Upper Belize Valley at this time (LeCount and Yaeger 2010b:348).

The Early Hats' Chaak phase (AD 670-740). The Early Hats' Chaak phase was the time of Xunantunich's greatest apogee. The site grew and was organized in a cross-shaped layout, the remains of which are still visible today. The elite residential Groups B and D also developed during this time, and Xunantunich likely integrated leaders from the nearby increasing hinterland population (Yaeger 2010).

LeCount and Yaeger (2010b) suggest that Naranjo incorporated Xunantunich into a multi-polity state during the Early Hats' Chaak. They further note that Plaza AIII was built at the

north end of the site and was equipped with characteristics of a royal residence. Concurrently, El Castillo was significantly altered to allow limited access and was likely only being used for ritual purposes (Leventhal 2010). Xunantunich also developed a new site architectural layout that Ashmore and Sabloff (2002) argue was constructed to emulate that of Naranjo, an already established and revered site. Ashmore (1995, 1998) also argues that the larger polity of Calakmul is a source of emulation for both Xunantunich and Naranjo.

Other evidence used to support Naranjo's role in Xunantunich's Early Hats' Chaak phase development include new architectural displays representing a divine kingship ideology, similarities in ceramic serving wares between the two sites, and the congruent timelines of the two sites (Figure 6). LeCount and Yaeger (2010b:350-353) further argue that due to the lack of a royal throne during the Early Hats' Chaak phase, the main seat of political power was at Naranjo. The lack of high status items and presence of mainly locally-produced items in burials and caches at Xunantunich (Jamison 2010) is used as additional evidence for Xunantunich's direct subordination to Naranjo. XAP archaeologists also propose that Naranjo achieved domination through either placing a local elite family in authority or inserting an outside family, likely from the Petén, into the seat of power at Xunantunich (LeCount and Yaeger 2010b:350).

Late Hats' Chaak (AD 740-780). LeCount and Yaeger (2010b) argue Naranjo's authority decreased during the Late Hats' Chaak, allowing Xunantunich to regain its autonomy. The decrease in hinterland population and reorganization of the site core during this period coincides with the political weakening of Naranjo following a war with Tikal in AD 744. Furthermore, the presence of a throne placed in Structure A15 during the Late Hats' Chaak, followed later by the placement of two additional thrones in that structure may have indicated a decentralization of

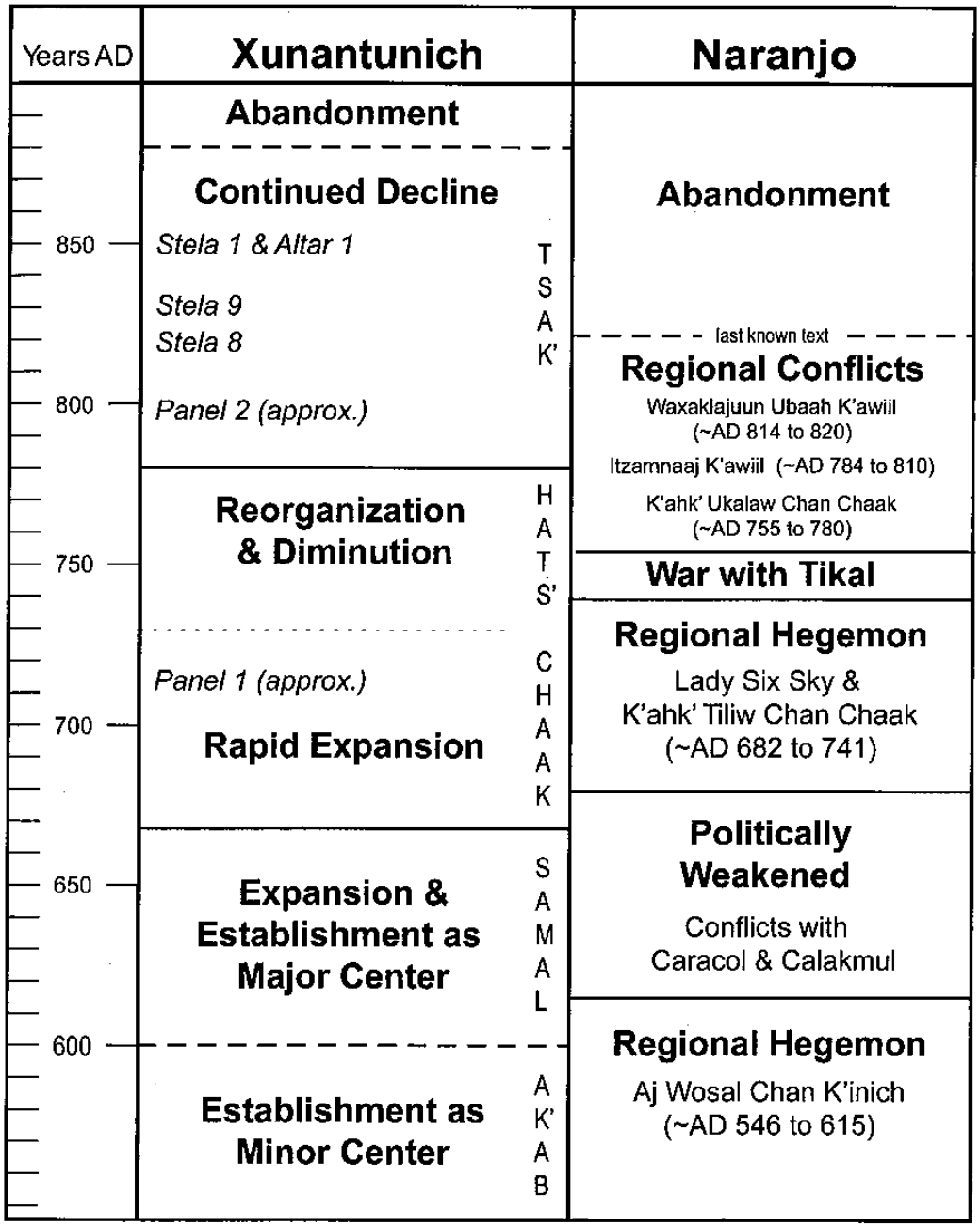

Figure 6. The political histories of Xunantunich and Naranjo (after LeCount and Yaeger 2010b Figure 15.1).

power as local families gained authority and Naranjo's power waned (LeCount and Yaeger 2010b:353).

Leventhal (2010) argues that at this time (either later in the Late Hats' Chaak phase or subsequent Tsak' phase) the royal residence shifted back to El Castillo, and the north palace

complex was abandoned. The movement of the ruling family back to the larger and taller El Castillo likely reconnected the ruling family with supernatural power. The relinking of local political leaders with ritual power is resonant of Xunantunich's autonomy in the Samal phase. Leventhal (2010) also argues that during this later period, construction on the back and sides of El Castillo indicate the structure's reuse as a residential area.

Leventhal's (2010) conclusion supports interpretations from Yaeger's (2010) examination of the north palace (Structure A11) around Plaza AIII, which he determines was largely abandoned by the end of the Hats' Chaak phase. Artifactual evidence such as the dismantling of architecture, the filling of the structure with white marl (a powdery limestone construction material), and the atypical body position of recovered human remains are considered support for the occurrence of a "desecratory termination" ritual (Yaeger 2010:156-7). Prior to the termination of A11, Yaeger argues the structure was occupied by a ruling family, either from Naranjo or closely connected with Naranjo. According to Yaeger (2010), the termination of Structure A11 coincided with the placement of a new ruling family at Xunantunich that was no longer affiliated with Naranjo.

The Tsak' Phase (AD 780-890). During the Tsak' phase, parts of Xunantunich's site core were abandoned and hinterland populations decreased significantly. Construction efforts continued in the civic-center, however, and Structure A1 was built, dividing the main plaza into two smaller plazas (Plazas AI and AII). LeCount and Yaeger (2010b:364) conclude that Xunantunich reemerged as an autonomous polity during the Tsak' phase as evidenced by the presence of Xunantunich's emblem glyph on Panel 2, which stylistically dates between AD 780-820 and was found in a later phase context on the north side of El Castillo (Helmke et al. 2010). In addition, three carved stelae (Stela 1, 8, and 9) placed on the north side of Structure A1

displayed images of rulers (Helmke et al. 2010). Dating to AD 820, Stela 8 refers to two rulers, one from Naranjo and the other likely from Xunantunich. Interestingly, the rulers mentioned on the stelae are referred to as equal suggesting that Xunantunich and Naranjo were peers during the Tsak' phase (Helmke et al. 2010:110; LeCount and Yaeger 2010b).

Structure A9

Structure A9 is a pyramidal structure that is approximately 10 m tall and 25 m wide at its base. Though Structure A9 is located toward the north end of the Xunantunich civic-ceremonial epicenter, just south of the more heavily studied north palace complex (see Figure 4), previous excavations on Structure A9 were minimally invasive. Thomas Gann (1925) located what was likely an intrusive burial at the summit of A9 near the exterior surface. Thomas R. Jamison (1996:64) with XAP noted a modification to the south face of the structure he believed likely related to modifications made to Ballcourt 2, which is located just to the south of Structure A9. Because the history of excavation at A9 is entwined with my own work at the structure, Chapter 4 provides a more detailed summary of the previous work at A9.

Summary

Xunantunich has been the focus of intermittent archaeological studies for more than a century and is recognized as a major Late Classic period center in the Upper Belize Valley. Research at Xunantunich continually benefits from additional data collection and analysis, which build on preexisting theories and interpretations. Each structure at Xunantunich served a particular sociopolitical function in the past and an understanding of this function contributes to the growing body of knowledge about the site. Despite substantial research efforts at Xunantunich in the past century, archaeologists did not systematically investigate many of the prominent structures in the site core until XAP (1991-1997) initiated an excavation and

conservation program. The XAP program was followed by a major four-year program conducted by the Belize Tourism Development Project (2000-2004). Using data from these investigations, researchers were able to piece together a chronology for Xunantunich in which the site's growth and decline was understood in the context of its vacillating relationship with the nearby larger center, Naranjo. Xunantunich initially developed as an autonomous polity during the Samal phase, and in the following Early Hats' Chaak phase, Naranjo may have incorporated the previously autonomous smaller center of Xunantunich for strategic use as Naranjo built into a regional multi-polity state. Later, as Naranjo declined during the Tsak' phase, Xunantunich reemerged as an autonomous polity. Recent research at the site by the XAC Project (2015-present) seeks to better understand the later phases of occupation at Xunantunich. The XAC Project also continues research and conservation efforts and, in 2016, began a systematic investigation of Structure A9, which had only been minimally explored prior to 2016. In this thesis, I incorporate newly recovered information from excavations at Structure A9 to contribute to and reexamine the previous interpretations of Xunantunich's chronological and political development.

Chapter 4: Methodological Framework

The methodological approach I used to collect and analyze data for my research allows for an investigation of how Structure A9 correlates with development of the Xunantunich site core. To determine the significance of A9 at Xunantunich, I collected data to determine when the structure was built and how A9 relates to other structures in the Xunantunich site core. To examine how evidence from A9 adds to the understanding of Xunantunich's regional relationships, I investigated archaeological correlates at Xunantunich that may indicate political interactions in the region. These archaeological materials include information from hieroglyphic inscriptions at Xunantunich and in the region, evidence of imported artifacts from Structure A9, and data from strontium isotope analysis.

Structure A9 Excavations

I conducted excavations of Structure A9 in the summers of 2016 and 2017 as part of the XAC Project (Figure 7). The XAC Project's excavation of A9 had two primary goals: 1) to horizontally expose the terminal phase architecture to determine if the structure was in adequate condition to be conserved and 2), to vertically excavate into and in front of the structure to determine its construction history and locate any earlier construction phases and explore for burials or caches that could provide dateable remains for determining the construction sequence or additional information about ritual. I conducted the investigations with the help of a local excavation crew from the nearby village of San Jose Succotz and members of the BVAR Project. Throughout the 2016 and 2017 field seasons, members of BVAR and I recovered and processed cultural remains, took photographs, and oversaw mapping of the structure. We also recorded architectural data, including architectural modifications and construction methods (Tilden et al. 2017a, 2017b).

Figure 7. Structure A9 prior to XAC Project excavations (photo courtesy of Jaime Awe).

We conducted the excavations using standard BVAR procedures. Each unit was excavated with designated levels and lots. Levels indicate vertical cultural changes in matrix and lots are indicative of either level changes or distinct features within levels. We removed large quantities of humus and collapse from the exterior of the structure to expose preserved architectural features for conservation. Because people have been excavating at Xunantunich for more than a century and much of the material covering buildings, including Structure A9, is from unknown contexts, we did not screen matrix from the exterior of the structure. All matrix from within the structure was screened through ¼ inch wire mesh. We placed a total of 12 units to excavate A9 (Figure 8).

EU A9-summit. We placed a 2.5 m (N/S) by 6 m (E/W) unit at the summit of Structure A9. This unit encompassed the disturbed area from Thomas Gann's (1925) early explorations,

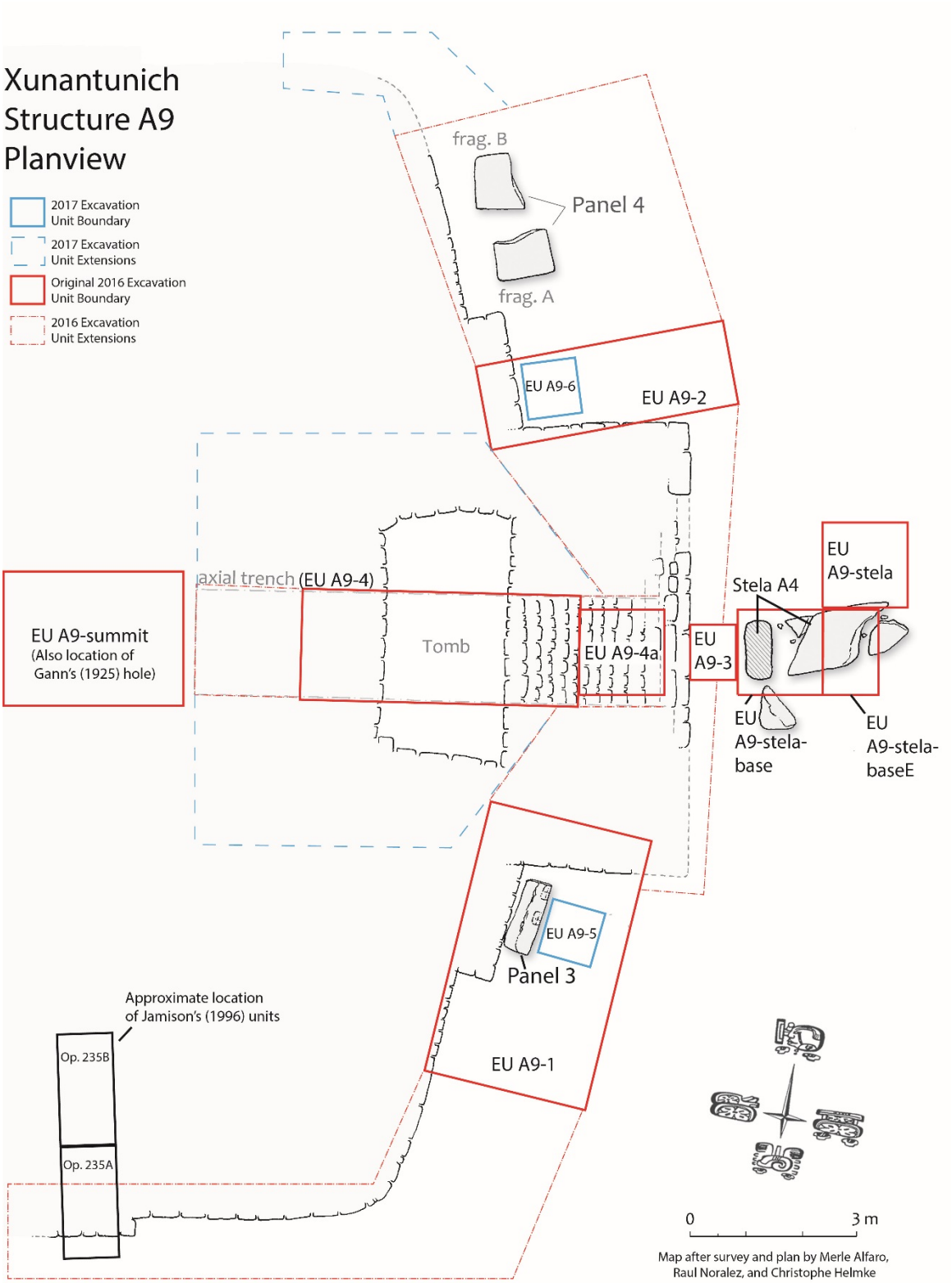

Figure 8. Xunantunich Structure A9 plan view with locations of 2016 and 2017 excavation units.

and its initial purpose was to confirm information that Gann published in 1925. Gann reported that he excavated a large pit at the summit of A9 that extended six feet below the structure's surface. Gann's descriptions of his excavation provide no detail about architectural features or the exact height of A9's summit prior to excavation. He did report, however, that he located human remains two feet below what was the summit of the structure at the time. The skull was located toward the north end of the pit, and based on Gann's (1925) description, the burial contained high status grave goods, such as jadeite, but was not enclosed in a tomb. Tilden and colleagues (2017b) note that the burial Gann recovered may have been similar to Terminal Classic period intrusive burials found at other Upper Belize Valley sites such as Cahal Pech.

The matrix cleared from the area Gann disturbed at the summit consisted of humus and collapse and was not screened. The XAC Project did, however, collect any artifacts visible during excavation. The artifacts we recovered included ceramics, chert, one freshwater shell, and a fragment of the epiphysis from a human humerus (portion of an upper arm bone). After clearing the disturbed area from Gann's excavations, we extended the unit vertically into the structure with the goal of exposing earlier phases of construction and any other burials or caches. Once within the structure all matrix was screened through ¼ inch wire mesh. The unit extended approximately 5.5 m into the structure where we halted the excavation due to instability of the baulk, which created hazardous working conditions. Additionally, we cleared humus and collapse from a 2.2 m (N/S) by 6 m (E/W) area to the south of EU A9-summit to clarify the height of the structure and cultural activity at the top of A9.

EU A9-stela-base and EU A9-stela-baseE. We placed this 1.5 m by 1.5 m unit adjacent to the base of an uncarved stela (Stela A4) at the eastern base of Structure A9. The purpose of this unit was to explore for dedicatory caches, which are commonly found beneath stelae and along

the centerline of structures at Maya sites (Sullivan 2017; Jamison 2010). The unit also provided an opportunity to record stratigraphy below the modern ground surface at the base of A9. The excavations revealed four plaster floors (two of these were substantial floors, both of which were re-plastered), a rock alignment that likely served to support the base of the stela, and a cache (Cache 1) of eccentric lithics (see Chapter 5). After discovering the cache, we extended the unit 1m to the east (EU A9-stela-baseE) so that we could move the base fragment of the stela to expose the cache *in situ*.

EU A9-stela. We placed a 1.5 m by 1.5 m unit north of the collapsed stela to expose fragments of the broken monument. Our excavations exposed seven fragments of the stela.

EU A9-1. We placed excavation unit A9-1 at the base of the structure to horizontally expose the terminal phase architecture and to expose any cultural deposits. The unit was placed on the east side of A9 just to the south of the axial stairway with the intent of exposing the south stair-side and stair-side outset if present, the adjoining terrace wall, and the plaza floor. The unit was originally 5 m (N/S) by 3 m (E/W) and was later extended to the north to expose the base of the axial stairs and to the south and west to expose the corner and south face of the structure. In the original boundaries of the unit, we discovered Panel 3 (see Chapter 5).

At the approximate midpoint of A9's southern face, we encountered a backfilled excavation unit. This unit was the southernmost of two excavation units (Ops. 235A and 235B) that Thomas R. Jamison of the Xunantunich Archaeological Project placed in 1996 (see Figure 8). In these units, Jamison (1996) noted a modification to Structure A9's south face that he argues may have been made contemporaneously with modifications to Ballcourt 2, which is located to the south of A9. Within Jamison's old units were a construction (retaining) wall and an outer-facing wall. On the west edge of Jamison's unit, visible through a gap between two

rows of E/W running stones that make up a buttress, was a large facing stone that faces east and likely formed the eastern edge of the original buttress to the building. Also, visible in this gap was a plaster floor that lips up onto the inner row of stones. Both the facing stone and the lipped plaster suggest that the buttress had been extended farther to the east in antiquity. Jamison (2010) also notes the buttress modification and concludes that the buttress was modified during the later Hats' Chaak or early Tsak' phase when modifications were made to A1, A17, and A8 located beside Ballcourt 2 to the south of Structure A9. Our excavations on A9's south face confirmed the presence of this modification (Tilden et al. 2017b:322-323). The excavations stopped once the terminal phase architecture was exposed. The architecture was quickly conserved once exposed to stabilize the structure.

EU A9-2. To identify if another panel (similar to Panel 3) was present on the opposite side of the axial stair, we placed EU A9-2 just to the north of the axial stairway. The original unit was 1.5 m (N/S) by 4.5 m (E/W) and was placed to expose the north stair-side outset and basal terrace of Structure A9. After initially locating no matching panel in front of the stair-side outset, the unit was extended an additional 3 m to the north. We located Panel 4 (in two fragments) on the plaza floor at the base of the first terrace and to the north of the north stair-side outset (see Chapter 5). In 2017, we extended EU A9-2 an additional 3 m to the north to expose the remaining terminal phase architecture at the base of A9's east face including the wall of the first terrace and the structure's northeast corner.

EU A9-3. In 2016, we placed a 1 m (N/S) by 0.85 m (E/W) unit at the center point of the foot of the axial stairway. The purpose of this unit was, like that of EU A9-stela-base, to explore for dedicatory caches and record stratigraphy below the modern ground surface. In this unit we

revealed four plaster floors (Floors 1-4) and Cache 2 (see Chapter 5). The excavation stopped at bedrock.

EU A9-4 (axial trench). This unit began in 2016 as a 2 m (N/S) by 8 m (E/W) unit that eventually extended from the base of the structure to the summit. The purpose of the unit was to expose the terminal phase architecture to better define architectural elements of A9 so that the structure could be conserved. In this unit, the excavators exposed the terminal phase construction steps. The terminal phase facing stones were no longer present and were likely scavenged for other building purposes, a common practice at ancient Xunantunich (Awe et al. 2009). Midway up the stairway, the construction steps had slumped inward indicating a cavity was likely beneath. After removing the stones that had slumped inward, excavators exposed the capstones of a large, vaulted tomb (see Chapter 5). In 2017, the EU A9-4 was extended to the north and south to expose the remaining terminal phase architecture for conservation.

EU A9BU-2. The excavated material in this unit consists of the contents of the approximately 4.4 m (N/S) by 2.1 m (E/W) by 2.6 m tall tomb. The tomb's capstones had been exposed within the axial trench (EU A9-4). Initially, the tomb was filled with large amounts of collapsed debris, and artifacts from this matrix were collected as part of a separate lot and recorded as part of EU A9-4. Once we removed the collapse material, we exposed the primary deposit (EU A9BU-2), which included human remains, associated artifacts, and faunal remains. We recorded and mapped all cultural material *in situ* prior to removing each item individually. Osteologists Dr. Ashley McKeown (Texas State University) and Dr. Lee Meadows Janz (University of Tennessee Knoxville) excavated and analyzed the human remains. Dr. Chrissina Burke (Northern Arizona University) excavated and analyzed the faunal remains. The BVAR Project in collaboration with local work crews excavated the remaining archaeological material.

EU A9-4a. We placed this 1.5 m by 1.5 m unit at the base of the construction steps previously exposed in the axial trench (EU A9-4). Like EU A9-3 and EU A9-stela-base, the purpose of this unit was to search for dedicatory caches and earlier construction phases. We exposed Floors 2 and 3 observed in EU A9-3 and a possible lower floor that was less substantial and may not have been a true floor. No caches were revealed in this unit. The excavation stopped at bedrock.

EU A9-5 and EU A9-6. One objective during the 2017 investigations was to enhance understanding of cultural activity prior to the terminal phase construction of A9. To pursue this objective, two excavation units (EU A9-5 and EU A9-6) were placed to determine if the previously recovered plaster floors observed in EU A9-3 (Floors 3 and 4) extended elsewhere across the plaza. Additionally, the placement of EU A9-5 and EU A9-6 at the base of the stair-side outsets allowed exploration for dedicatory caches, which are often found flanking axial stairways of pyramidal structures in the Upper Belize Valley.

EU A9-5 and EU A9-6 were both 1 m by 1 m units. EU A9-5 was placed to the south of the axial stairway, just north of the stair-side outset and east of Panel 3, which was leaning against the southeast stair-side outset (see Figure 8). As Panel 3 rests angled slightly outward to the southeast, the excavation unit was angled to parallel Panel 3. The unit was placed directly on the plaza floor, as the humus and collapse from the structure had been cleared away in 2016 during the exposure of Panel 3 and the surrounding architecture. EU A9-6 was placed to the north of the axial stairway and just east of the north stair-side outset. The unit was placed directly on the terminal plaza floor, like EU A9-5, as humus and collapse had been removed in 2016.

Architectural Comparative Analysis

As I noted above, one of the goals of the XAC Project's investigation was to compare the construction methods and building phases of Structure A9 to other structures at Xunantunich in an effort to determine whether Structure A9 was rapidly constructed during the Late Classic period. Primary data on construction techniques of various structures in the Xunantunich site core were previously recorded by excavations beginning in the early 1990s. I used reports and published literature (Audet 2006; Awe 2008; LeCount and Yaeger, eds. 2010; Leventhal 1996,1997; Leventhal and Ashmore 1994, 2004; McCurdy 2016; Santasilia and Tilden 2016) from these excavations to compare ancient Maya architectural techniques within the Xunantunich site core. I also compared the methods and phases of construction at Xunantunich to methods of construction at another Upper Belize Valley site, Cahal Pech (Awe 1992). Building techniques and phases provide important information on length of site occupation and the time and labor requirements necessary for construction of monumental structures.

Dating Methods

The excavations uncovered hieroglyphic panels at the base of the east face of A9 and a tomb beneath the structure's axial stairway that included human remains, faunal remains, 37 whole ceramic vessels, and other associated artifacts. Because the context of the human remains and associated artifacts in the tomb was well-preserved, the human remains and ceramic vessels served as the best artifactual evidence to date the structure. In addition, the presence of the hieroglyphic panels added specific historical data that assisted in the dating process. A comparison of the temporal information from the hieroglyphic panels, the human remains, and the associated tomb ceramics clarify the relationship between the panels and interred individual in the context of Late Classic period political events.

Historical texts. The BVAR Project's epigrapher, Dr. Christophe Helmke (University of Copenhagen), deciphered and provided interpretations of the historical data on the hieroglyphic panels (see Helmke and Awe 2016a, 2016b). The interpretations of the historical information were used to determine the approximate time the ancient Maya placed the panels in front of Structure A9 at Xunantunich and served to assist in dating when the structure was built.

Radiocarbon dating. The BVAR Project submitted samples of the human and animal remains from the tomb for radiocarbon assays to labs at Pennsylvania State University and Baylor University. The radiocarbon analysis results were used to directly date the human and animal remains and, by association, the date of construction for the tomb and structure.

Ceramic analysis. Ceramic analysis, as a relative dating technique, also assisted in dating the tomb and structure. Ceramic fragments and whole vessels are frequently used for dating archaeological sites in the absence of other direct dating methods such as radiocarbon dating, dendrochronology, or dates from hieroglyphic texts. I conducted analysis of the ceramic artifacts from Structure A9 using James C. Gifford's (1976) Barton Ramie ceramic typology and with the assistance of a Maya ceramicist, Dr. Jim Aimers (State University of New York Geneseo). The site of Barton Ramie is a residential area with evidence of occupation spanning the Preclassic through the Postclassic and is located approximately 21 km northeast of Xunantunich in the Upper Belize Valley. Various sites in the Maya area have different typologies, but the Barton Ramie typology is the established and most widely used ceramic sequence in the Upper Belize Valley.

Gifford (1976) used the type-variety approach to ceramic analysis. The type variety system is hierarchical: attributes collected from either whole vessels or ceramic sherds are grouped to determine varieties, which are then grouped into types. Types can be integrated into

ceramic groups which make up ceramic phases that have spatiotemporal associations. Each ceramic group falls under a ceramic ware, which shares technological characteristics such as paste, surface color, and firing technique and additionally may be identified based on function, form, or geographic location (Rice 1987:286-7). Wares may also consist of different pottery types that may not be indicative of time or location (Gifford 1976:14). The type-variety method is useful because it helps to date archaeological sites, provides a means of describing ceramics, and facilitates communication among archaeologists (Rice 2013:26).

I recorded attributes of each of the 37 whole vessels and one partial vessel from the tomb including vessel form, base diameter, rim diameter, height, wall thickness, temper, paste, and slip color as necessary. I also recorded any other distinctive characteristics such as the presence of appendages, incising, and discernible decorations. Using the combination of recorded attributes, I used Gifford's (1976) typology to determine the ceramic type and phase, which provided a date range for the vessels. I then consulted with Dr. Jim Aimers to confirm and refine the final type designations.

While the Barton Ramie typology is popular among Upper Belize Valley archaeologists, I recognized a limitation of using this methodology. During my analysis, I encountered situations in which certain vessels had decorative elements specific to one type that did not coincide with that type's ware description. Thus, in response to this second limitation, I employed a ceramic systems approach in conjunction to using Gifford's (1976) type-variety method. A ceramic system groups ceramic types that may have similar decorations and design styles that crosscut wares (Aimers 2009; Gifford 1976:12; Henderson and Agurcia 1985:432; Rice 2013). Though Gifford (1976:12) did recognize the benefit of using ceramic systems approach, he did not apply the approach to the Barton Ramie collection. Other ceramicists in Mesoamerica, however, have

used the systems method (e.g., Aimers 2009; Henderson and Agurcia 1985; Rice 2013). The focus on decorative features rather than composition of the ceramics lessens the emphasis on variability based on local materials (Henderson and Agurcia 1985:433). The systems approach also facilitates communication by allowing archaeologists to discuss broad similarities among different sites and regions until additional data is collected to assign each pot or sherd to an appropriate type (Aimers 2009:247). Thus, for certain vessels from the Structure A9 tomb that had decorative elements of one type but compositional features of a different ware, I assigned the vessel to a ceramic system rather than a specific type.

Finally, while the temporal data I derived from the tomb vessels was useful in obtaining a broader relative date range for Structure A9, I did not rely only on ceramic analysis to date the structure. I used ceramic analysis in combination with other direct dating methods including radiocarbon dating and hieroglyphic dates painted on ceramic vessels from the tomb. I obtained hieroglyphic dates from two of the ceramic vessels that contained glyphs representing specific calendar dates. The ancient Maya celebrated twenty-year period endings (*k'atun* endings), and these are sometimes depicted on carved monuments or on ceramic vessels with the use of what is called an *Ajaw* glyph next to a numerical coefficient (e.g., Chase and Chase 1987:15-17, Fig. 11 b, d & g). Occasionally, the Maya would also record, *lahuntun*, or half *k'atun* period endings, which are recorded in the same manner as the *k'atun* dates, using an *Ajaw* glyph next to a numerical coefficient. Christophe Helmke interpreted the dates on the Xunantunich structure A9 tomb vessels (see Tilden et al. 2017a:367). Each *Ajaw* glyph and numerical coefficient could refer to a series of possible period ending dates; thus, in order to determine the date that each vessel was referring to, Helmke correlated the possible *k'atun* or *lahuntun* ending dates with the relative dates obtained from the ceramic vessel analysis.

An Examination of Archaeological Correlates of Incorporation Strategies

As I noted in Chapters 1 and 3, relationships of dominant polities with neighboring regions likely varied, and dominant polities may have employed various strategies to incorporate smaller nearby polities into larger political networks. Incorporation strategies include patron-client relations, forming alliances, and annexing a polity or region through direct control (D'Altroy 1992:5; LeCount and Yaeger 2010c). In order to determine the type of relationship Xunantunich had with Naranjo, I examined potential archaeological correlates recovered from the excavations of Structure A9 that may indicate the use of various incorporation strategies. To approach my investigation of evidence for incorporation strategies, I used LeCount and Yaeger's (2010c) definitions of archaeological correlates of incorporation strategies (see Table 1). Because my thesis focuses on archaeological data recovered from excavations of one structure, it is outside the scope of my thesis to examine all of the correlates that LeCount and Yaeger (2010c) examine. I will not, therefore, be investigating tribute payments, restructured land tenure or demographics, and restructured economic relations including markets, which are all best examined using a combination of data from regional archaeological surveys, excavations of multiple structures, or investigations of plaza areas. I also do not examine marriage alliances due to lack of specific information from hieroglyphic texts. In this thesis, however, I will examine potential evidence for archaeological correlates of incorporation strategies including gift exchanges, foreign symbolism, war events, and restructured sociopolitical institutions.

Isotopic Analysis of Human Remains. To better understand the political relationship between Xunantunich and Naranjo in light of restructured sociopolitical institutions, I examined strontium isotope analysis results from the human remains in the Structure A9 tomb. Many changes in Maya political organization can be understood by exploring the conflicts between kingship and kin-based political structures (Iannone 2002; McAnany 2013:131). Prior to the

XAC Project excavations of Structure A9, there had been few hieroglyphic texts and only one elite burial discovered at Xunantunich. Previous researchers (LeCount and Yaeger 2010b:367) observed that it was plausible Xunantunich may have been directly tied to Naranjo through hereditary relations or that Naranjo promoted a local family to rule the region. Thus, in addition to the data from the newly discovered hieroglyphic texts (Helmke and Awe 2016a, 2016b), it is important to determine if the human remains in the tomb were that of a local individual or a foreigner from the Petén to better clarify how Naranjo may have incorporated Xunantunich into the greater regional network.

To determine if the individual interred was "local" (from the Upper Belize Valley) or "foreign" (from the area around Naranjo), the XAC Project submitted a sample of the human remains from the Structure A9 tomb to University of Mississippi for strontium isotope analysis. Isotope values from food and water sources are integrated in human body tissue during an individual's lifetime and are geographically variable; thus, strontium isotope analysis uses the strontium and oxygen isotope ratios obtained from tooth enamel to provide information about where a person was born and grew up (Bentley 2006; Freiwald et al. 2014; Ericson 1985; Faure and Powell 1972). One limitation of isotope studies is that some geographic areas may have similar isotope values making it difficult to track movement of a person between places that have similar value ranges. Isotope analysis also cannot track the number of moves a person made in his or her lifetime (Freiwald et al. 2014:132). Isotope analysis does, however, help to determine an individual's birthplace, which may be significant to that person's identity or, in the case of the individual in the A9 tomb at Xunantunich, provide an understanding of how that identity may have facilitated political relationships in the region.

Summary

The methodological approach I use to investigate A9 aims to determine how A9 fits into the development of the Xunantunich site core and considers how data from A9 may increase an understanding of Xunantunich's relationship with Naranjo. To initiate data collection from Structure A9, I conducted excavations as part of the XAC Project during the 2016 and 2017 field seasons. These excavations included placing an axial trench along the east face of the structure and units along the base of the structure to expose architectural elements. The XAC Project also placed vertical excavation units, one at the summit to clarify if A9 had additional building phases and five units at the base of the structure to expose any earlier construction phases and explore for dedicatory offerings. Results from these excavations included exposure of architectural elements of A9's exterior and interior, the discovery of a large tomb and associated artifacts within the structure, two caches of eccentric lithics, and two hieroglyphic panels on either side of the structure's axial stairway. Further methodologies involve analyzing the excavated material. These include a comparison of the construction techniques used to build A9 with those used to build other monumental structures in the site core, analyzing the ceramic vessels from the tomb, submitting the tomb human remains for radiocarbon and isotopic analysis, and examining data from the interpretation of the hieroglyphic texts. Dating the structure required using a combination of results from ceramic analysis, decipherment of hieroglyphic inscriptions, and radiocarbon dating. To better understand the type of relationship Xunantunich had with Naranjo, I consider the data recovered, including the isotope results, in light of LeCount and Yaeger's (2010c) outline of evidence for political incorporation strategies. Results from the A9 excavations and analysis are discussed in the following chapter.

Chapter 5: Results of Structure A9 Investigations

The XAC Project's excavations of Structure A9 confirmed that the mound represents the remains of a pyramidal structure about 10 m tall and 25 m wide at its base. Vertical excavations revealed the structure was built in one single and major construction phase. The structure was composed of three terraces (platform-like subcomponents) with a central stairway on its east face. As is common for many Maya temples, A9 likely supported a wooden superstructure at its summit. Two hieroglyphic panels flanked the central stairway, and exploration beneath a collapsed uncarved stela and in front of the building's central stairway led to the discovery of two dedicatory caches containing obsidian and chert eccentrics. Sub-surface excavations along the central axis of the structure revealed a large tomb with the remains of one individual and associated artifacts.

In this chapter, I describe the material recovered from XAC's 2016-2017 excavations of Structure A9. First, I detail the architectural elements of the structure. I compare the construction sequence and methods used to build A9 and with those of other structures previously excavated at Xunantunich. I then describe the eccentric caches, the hieroglyphic panels, and the tomb. Table 2 provides a brief overview of the results from each excavation unit, and I describe these results in further detail throughout the chapter. These results are also presented in the 2016 field season BVAR reports (see Tilden et al. 2017a, 2017b). See Appendix A for a summary of artifacts from Structure A9 non-tomb contexts. Additionally, I present results from radiocarbon and isotope analysis of the tomb's human remains, as well as results from the analysis of associated artifacts including obsidian, shell, jade, faunal remains, and ceramic vessels. To conclude, I integrate results of radiocarbon, hieroglyphic, and ceramic dating techniques to place the structure in a historical context.

Table 2. Overview of Results from Structure A9 Excavation Units.

Excavation Unit	Size (m, N/S x E/W)	Location	Purpose	Results
EU A9-summit	2.5 x 6	summit	clarify information provided by Gann (1925) and expose earlier construction phases	structure built with construction pens and use of dry-laid fill, possible modification at summit, one observable phase of construction
EU A9-stela-base	1.5 x 1.5	base of Stela A4	explore for dedicatory caches	Cache 1: 28 chert eccentrics
EU A9-stela	1.5 x 1.5	north of Stela A4	expose fragments of broken stela	seven fragments of Stela A4
EU A9-1	9 x 3	east face, south of axial stairway	expose terminal architectural elements on south and east face of structure	Panel 3; east face architectural elements including south stair-side outset, lowest terrace wall, basal molding, and lower axial steps; south face architectural elements including southeast corner and modified buttress; terminated Mount Maloney Black bowl on top of collapsed architecture 26 cm above plaza floor level
EU A9-2	8 x 4.5	east face, north of axial stairway	expose terminal architectural elements on east face of structure north of axial stairway	Panel 4; east face architectural elements including north stair-side outset, terrace wall, and lower axial steps; north face architectural elements not present
EU A9-3	1 x 0.85	east of the base of the axial stairway	record architectural features and explore for dedicatory caches	Cache 2: 9 obsidian eccentrics, shell, small fragments of jadeite, pyrite, and hematite; Floors 1-4
EU A9-4	2 x 8	east face, central line of structure	expose terminal phase architecture and explore for earlier construction phases or caches	axial construction steps, tomb capstones
EU A9BU-2	4.44 x 2.14	tomb beneath axial stairway	excavate contents of the tomb	one male individual, 37 whole ceramic vessels, one partial ceramic vessel, 13 obsidian blades, 6 jadeite beads, faunal remains
EU A9-4a	1.5 x 1.5	under the base of the axial stairway	record architectural features and explore for dedicatory caches	two plaster floors (Floors 2 and 3)
EU A9-5	1 x 1	east of southeast stair-side outset	record architectural features and explore for dedicatory caches	four plaster floors (Floors 1-4)
EU A9-6	1 x1	east of northeast stair-side outset	record architectural features and explore for dedicatory caches	five plaster floors (Floors 4 and 5 are at the same level as Floors 3 and 4 in EU A9-5)

The Architectural Elements of Structure A9

The 2016 and 2017 horizontal excavations of A9 exposed architectural elements of the structure's east, south, and north sides. The vertical excavations in the summit of the structure and in the plaza floor provided additional information about construction methods used to build A9 and a possible earlier phase of construction, as well as structural modifications.

Central stairway. The removal of collapsed debris in excavation units A9-1 and A9-2 exposed terminal phase basal architecture at A9's base. Excavation along the east face of the structure exposed the bottom two steps of the central stairway and the wall of the lowest terrace. Horizontal clearing of A9's east face (EU A9-4) exposed construction steps of the axial stairway that extended about two-thirds of the way up the structure. The construction steps were well-preserved except for an area about midway up the structure where the steps slumped inward (Figure 9). The slumped material resulted from the presence of a large tomb beneath the construction steps. For details on the tomb contents, see the 'Tomb' section in this chapter.

Figure 9. Exposed construction steps after clearing of axial trench (EU A9-4). Photo courtesy of Jaime Awe.

Basal architecture. The central stairway is flanked on either side by stair-side outsets, which are rectangular components that project horizontally beyond the bottom terrace wall (Figure 10). The bottom terrace has basal molding, which extends around A9's southeast rounded corner. While the basal architecture along the north face of A9 was poorly preserved, the architecture along A9's south face was in good condition. Excavations on the south face of A9 exposed a continuation of the basal molding exposed during the excavations of the east face. Midway along the southern basal terrace we exposed Jamison's (1996) earlier excavation units and confirmed the presence of modification he observed of the buttress and retaining wall (see Chapter 4). Because the structure's north face was poorly preserved, the conservators used measurements from the south side to replicate the architecture on the north side of the structure, which likely mirrored the south side's architectural elements in antiquity.

Figure 10. Structure A9's southeast corner, southernmost stair-side outset, and stair-side (photo by author).

The absence of facing stones on A9's eastern and northern face coupled with the presence of a terminated bowl located in EU A9-1 (see Table 2; see also Tilden et al. 2017b:333) may be indicative of Terminal Classic period (AD 780-1000) activity. The facing stones from the lowest terrace wall north of the axial stairway were no longer present except for the lowest course of stones (Figure 11). Facing stones were also missing from most of the north stair-side outset, the central stairway above the two lowest steps, and the two upper terraces. While some of the facing stones may have dislodged during collapse, the facing stones are likely absent because the ancient Maya reused the stones for other building purposes just prior to or after the abandonment of the site. The scavenging of facing stones from buildings was a common practice in the Upper Belize Valley, and at Xunantunich, during the Terminal Classic period (Awe et al. 2009). During the Terminal Classic, the ancient Maya may have used the scavenged stones at Xunantunich to build new architecture such as the low platforms and walls in Plaza AI (Santasilia and Tilden 2016:122-124).

Figure 11. Structure A9's northeast base, view facing south. Excavations at A9's northeast base exposed the lowest terrace wall with missing facing stones (photo by author).

Summit. Our initial clearing at the summit of A9 (EU A9-summit) revealed a tamped floor that measured 2.2 m (N/S) by 3.5 m (E/W) to the south of Thomas Gann's original excavation. The tamped floor was plastered in several areas. On top of the tamped floor along the floor's northern edge was an E/W running construction wall approximately 0.77 m tall and about 2 m long. The wall indicates that A9 was taller at one time, extending above the cleared area on the summit. The placement of the construction wall on top of the plastered surface may also represent evidence for modification made to the original structure in which an additional platform was built on top of the plastered surface to increase the height of A9. Alternatively, the construction wall is part of the subsequent construction pen placed during the original construction process and does not represent an architectural modification.

The vertical excavation from the summit (EU A9-summit) revealed a construction matrix composed of dry-laid fill, construction pen walls, and irregularly placed construction floors. The construction pen walls are made of stacked stones held together with a small amount of mortar and mud. Small to medium stones and marl, a white powder limestone material, make up the dry-laid fill placed within the construction pen walls. Mixed in the fill material of the construction pen walls were various artifacts such as chert flakes and cores, miscellaneous stucco fragments, and ceramic sherds that were likely collected from middens or trash deposits where the ancient Maya obtained the fill material. Due to instability of the dry-laid fill, which created an unsafe working environment, we stopped the vertical summit excavation at approximately 5.5 m below the summit.

Plaza floors. The two excavation units (EU A9-5 and EU A9-6) placed to investigate below the uppermost plaza floor exposed an earlier re-plastered plaza floor (Floors 3 and 4 in EU A9-5 [Figure 12] and Floors 4 and 5 in EU A9-6 [Figure 13]) approximately 35-40 cm below the

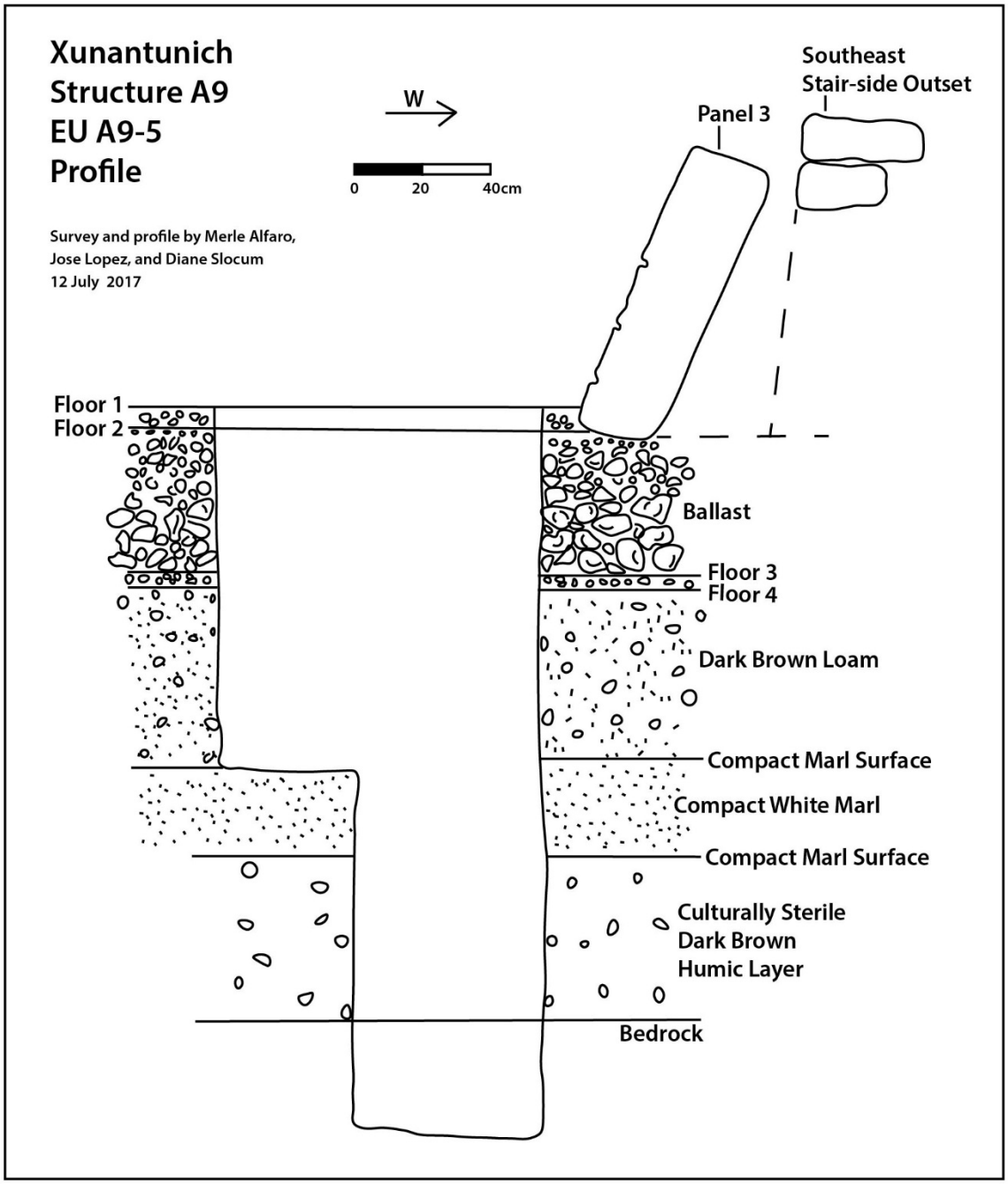

Figure 12. EU A9-5 unit profile.

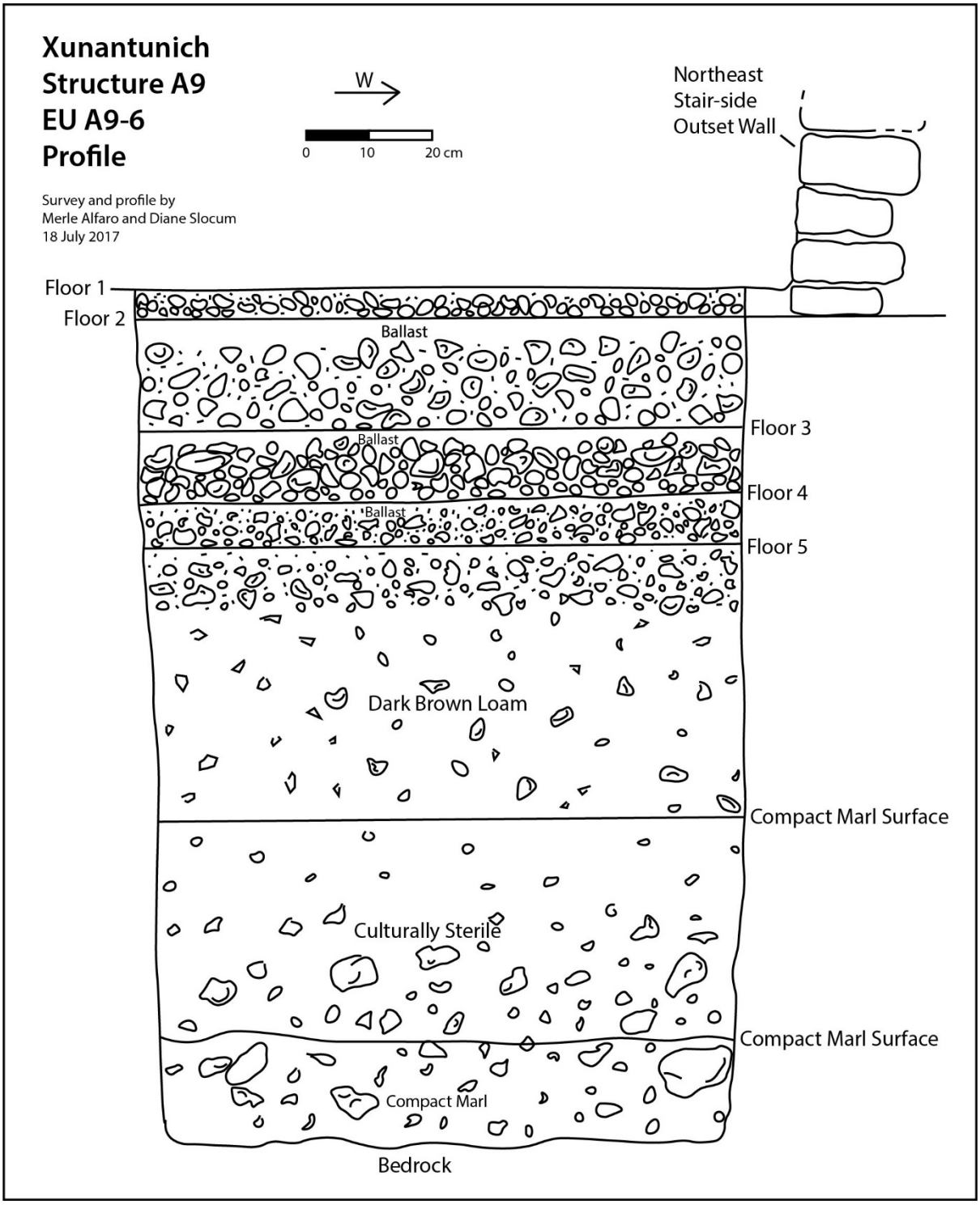

Figure 13. EU A9-5 unit profile.

terminal plaza floor. This earlier re-plastered plaza floor may indicate that at least one small structure may be present beneath A9's terminal phase construction. A plaster floor at a comparable level was exposed in 2016 within EU A9-4 and within the tomb (Figure 14). If present, this earlier structure would have been a low platform located west of the location of the tomb. Such low platforms typically supported a thatch structure. The structure also was likely a low platform because Tilden and colleagues (2017b:326) found no evidence for an earlier structure during the previous field season within the deep excavation unit placed at the summit of A9. Given this observation, it is also possible that there is no earlier building beneath A9 and that the earlier floors observed in EU A9-5 and EU A9-6 only represent the earlier surface of Plaza AII prior to the construction of A9.

In the 1990s, plaza excavations on the south side of Structure A1 also revealed a portion of an earlier plaster floor 12 cm below the uppermost plaza floor (Zeleznik 1993:36). As described in Chapter 3, previous researchers have recovered some evidence for occupation of the hilltop prior to the Late Classic period at Xunantunich. Zeleznik's (1993:35) plaza floor excavations near A1 revealed a lower level in which only Preclassic and Early Classic sherds were recovered, and this, coupled with the presence of the earliest construction phases at Xunantunich, which were revealed during a tunneling operation into El Castillo (Leventhal 2010; Miller 1995,1996), indicate the hilltop was occupied earlier in the Preclassic. Thus, the hilltop may have had other earlier low-platform structures from the Preclassic period (1000 BC-AD 250) that are no longer visible beneath the major terminal construction phases during the Late Classic.

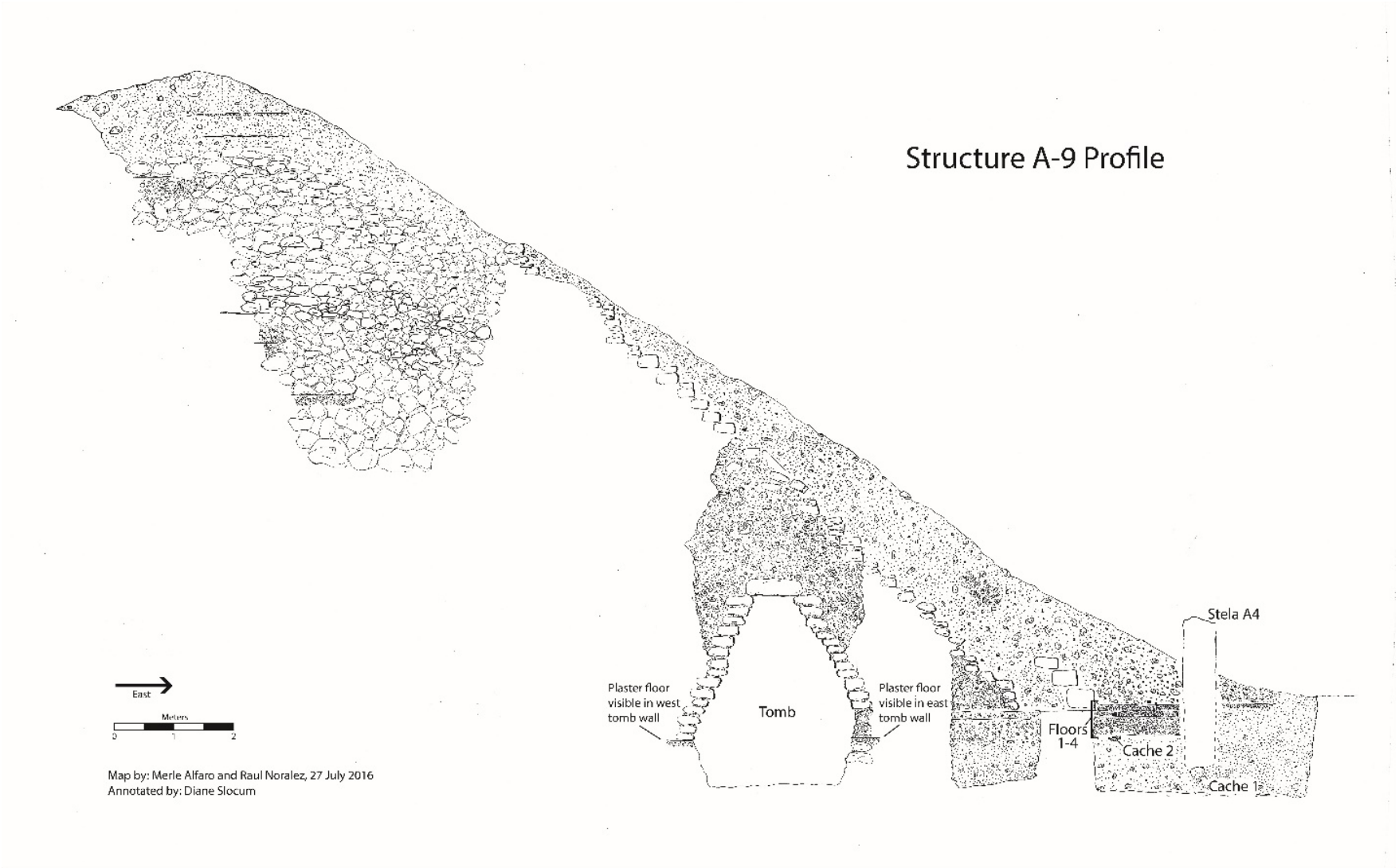

Figure 14. Structure A9 profile.

Comparing Construction Phases and Techniques

Previous investigators have observed that, in a similar manner to A9, the ancient Maya built the structures in the Xunantunich site core in few construction phases. A construction phase is a construction episode in which an entirely new building is built on top of another building and does not include modifications or alterations to phases of construction. I differentiate between construction phases and modifications because many structures at Xunantunich were modified through time, such as the modification to the south buttress of A9. The terminology and interpretation of the term *phase* versus *modification* may also vary. McCurdy (2016:338), for example, separates the Castillo construction into nine phases rather than the four phases Leventhal (1996,1997,2010) observes. Nine phases, in McCurdy's case, provides sufficient detail necessary for obtaining her research objectives, which include the use of computer modeling and measurements of laborer efforts during distinct phases of construction. In either interpretation of the number of phases required to build El Castillo, the majority of the building effort appears to have occurred during the Late Classic period (AD 600-900), a relatively short time-span for building such a massive structure.

At many of the other structures in the site core, researchers identified only one or two construction phases. In Group A, structures with single construction phases include A1 (Zeleznik 1993:49-50); A2 (Jason Yaeger, personal communication 2018); A3 and A8 (Santasilia and Tilden 2016:128); and A11 (Leventhal 1997:4). A14 also likely had one construction phase. During Thomas Gann's early excavation efforts of A14, it is alleged that he used dynamite to blow the structure's top off (Audet 2006). Audet (2006:151), however, placed an excavation unit in the lower remaining axial stairway of A14 and noted only fill material and no earlier construction phases. Researchers identified two construction phases for Structures A4 (Audet 2006:143), A7 (Tilden et al. 2017), and A13 (Tia Watkins, personal communication 2017).

Previous researchers may not have been able to identify all construction phases for each structure. In some cases, researchers (Jason Yaeger, personal communication 2018; Zeleznik 1993) suggested structures with one identifiable phase of construction may have had an earlier phase that they were unable to expose due to safety hazards related to the instability of the dry-laid fill. We experienced a similar situation while excavating A9 when we were unable to excavate more deeply into the structure due to the risk of dislodging stones that would compromise the walls of dry-laid fill (Tilden et al. 2017b:329).

The A9 Caches

Exploration in front of A9's axial stairway (EU A9-3) and at the base of the collapsed stela (EU A9-stela-base and EU A9-stela-baseE) led to the discovery of two sub-floor caches. The cache at the base of the stela (Cache 1) contained 28 chert eccentrics, and the cache at the centerline of the axial stairway (Cache 2) included 9 obsidian eccentrics, shell, and small fragments of jadeite, pyrite, and hematite. For detailed descriptions of the Structure A9 caches and an analysis of how the A9 caches compare to other caches at both Xunantunich and in the Upper Belize Valley, see Sullivan (2017) and Tilden and colleagues (2017b:337-343).

The A9 Panels

The excavation crew uncovered two hieroglyphic panels flanking the building's front stairway (see Tilden et al. 2017b:321-322). Panel 3 (Figure 15) was located south of the eastern axial stairway, and Panel 4 (Figure 16) was on the north side of the axial stairway. Panel 3 was discovered laying on its side and leaning against the stair-side outset. Panel 4 was collapsed and in two fragments slightly north of the stair-side outset. Both panels have a pair of medallions that are carved with hieroglyphic inscriptions. The use of medallions, the style of the glyphs, and the

Figure 15. Xunantunich Panel 3 (photo courtesy of Jaime Awe).

Figure 16. Xunantunich Panel 4 (photo courtesy of Jaime Awe).

color and density of the limestone suggest that the panels originated at Caracol, a major primary center located 42 km to the southeast of Xunantunich.

Christophe Helmke and Jaime Awe (2016a, 2016b; also Simon Martin 2017) argue that these panels were part of a hieroglyphic stairway erected during the reign of one of the kings of Caracol, K'an II (AD 618-658). They further note that K'an II commissioned the hieroglyphic stairway in AD 642 to commemorate his defeat of Naranjo in AD 631. In the latter part of the seventh century, the stairway was dismantled and transported to Naranjo as a type of war booty following Naranjo's defeat of Caracol in AD 680 (Helmke and Awe 2016a, 2016b; Martin 2000:57-58, Figure 12, 2017). Their argument explains why the majority of the hieroglyphic stairway erected during K'an II's reign was not found at Caracol but was found at the site of Naranjo. Helmke and Awe (2016a:2-3) also argue that a single panel of the stairway found at Ucanal and the two panels found at Xunantunich may represent trophies indicating their participation in the conflict on the side of Naranjo.

The Naranjo hieroglyphic stair was photographed and documented in 1905 by Teobert Maler. In 1909, Sylvanus Morley made a second record of the stairway. In the 1970s, Ian Graham took additional photos of the stairway and produced the first accurate illustrations of the panels. In the 1980s, looters removed all but one of the panels of the Naranjo hieroglyphic stair. All photographs and Graham's illustration of the stair confirm that the monument, as it was discovered at Naranjo, was composed of twelve panels and three sculptures representing human crania. The documentation also showed that the panels of the hieroglyphic stair were out of syntax and appear to have been placed in a manner that rendered them somewhat illegible. Nevertheless, studies of the monument by Tatiana Proskouriakoff (1993:40-41) and Michael

Closs (1984:78, Table 1), noted that the range of dates of the hieroglyphic stair span the two decades between AD 623 and 642 during the reign of K'an II.

Helmke and Awe (2016a, 2016b) also describe the historical and chronological information provided in the hieroglyphic texts of Panels 3 and 4, as well as the contextual and semantic relationship of these panels to the Naranjo hieroglyphic stair. The text of Panel 3 has three statements. First, Panel 3 gives a clear death statement for Lady Batz' Ek', in AD 638. Lady Batz' Ek' was mother of K'an II of Caracol, and the date of her death statement is significant because a large tomb at Structure B19 at Caracol at the summit of Caana (the site's largest structure and primary palace complex) was thought to be the final resting place of Lady Batz' Ek'. A long count date from the tomb on Caana corresponds to AD 634, four years before her death, which suggests it is no longer tenable to assume that the B19 tomb contained the remains of Lady Batz' Ek'. Second, Panel 3 provides a second death statement for Waxaklajuun Ubaah Kan in AD 640 of the Snake Dynasty. This death statement helps to reconstruct a period of instability in the snake dynasty. Waxaklajuun Ubaah Kan was defeated by Yukno'm Head, also of the Snake Dynasty, who eventually established his capital at the site of Calakmul. The third statement on Panel 3 refers to a ball game though details of the ballgame are not known.

Panel 4 contains one major clause and starts with the date that corresponds to December 7, AD 642 and closes the *k'atun*, or twenty-year period, that concludes the entire narrative recorded on the hieroglyphic stair. Panel 4 contributes to an understanding of the Snake-head dynasty, clarifying that political authority had been re-established at Calakmul by AD 642 following the downfall of its original capital at Dzibanche. K'an II, who commissioned the hieroglyphic stair in AD 642, refers to the transfer of the seat of power of the Snake-head dynasty because he was an ally, and possibly a vassal, of the Snake-dynasty. Lady Batz Ek',

K'an II's mother, likely was affiliated with the Snake-head dynasty and arrived at Caracol as part of marriage alliance with K'an II's father.

The A9 Tomb

As indicated above, we located a tomb containing the remains of an adult individual and associated artifacts (Figure 17) while excavating midway up the axial trench and below the slumped portion of the construction steps. The A9 tomb was conserved during the fall of 2016 to quickly stabilize the structure and prevent further collapse. The tomb is one of the largest burial chambers discovered in the southern Maya lowlands, the largest tomb discovered in Belize to date, and the first royal tomb discovered at Xunantunich. Table 3 summarizes the Structure A9 tomb and its contents, and Figure 18 illustrates the relationship between the interred individual and associated artifacts.

Architecture. The tomb is a rectangular vaulted chamber and its long axis is oriented N/S. The chamber measures 444 cm long by 214 cm wide by 262 cm high. To construct the lower portion of the tomb, the floor of the chamber was cut into bedrock and plastered. The walls were also plastered though most of the plaster had fallen off the walls, spreading over the tomb floor's contents and creating hardened matrix that made excavation difficult. The vault of the tomb was well-preserved and contained a mixture of mortared and dry-laid stones. The vault measures about 1.6 m from the support walls to the central capstones. The tomb's east and west wall contain four holes each that were likely for wooden support beams. The holes on the east and west walls do not evenly line up with one another, however, so it is unclear exactly how the holes were used. The north and west walls of the tomb were made of small stones that were mortared together, and the east wall was built of large boulders. The south wall was made of irregularly placed cut stones.

Table 3. Summary of A9 Tomb Results.

Grave Type	Vaulted stone-lined tomb, type defined by Welsh (1988)
Size	4.44 m (N/S) x 2.14 m (E/W) x 2.62 m tall
Sex	Male
Age	30-39 years
Position	Supine, head to south
Associated Artifacts	6 jadeite beads 2 teeth have jade inlays 13 obsidian blades 37 whole ceramic vessels 1 partial ceramic vessel 4 chert pieces 2 shell pendants 1 limestone spindle whorl ½ a shell ring bone hair pins jaguar and deer remains
Approximate Date	Early Hats' Chaak (AD 670-740) based on the following results: • AD 670-775, AMS results of human remains • AD 692, hieroglyphic date on Vessel 15 • AD 672 or AD 721, hieroglyphic date on Vessel 23a

Interestingly, the tomb is not intrusive to the core of Structure A9 but rather it appears to have been constructed concurrently with the structure. The use of dry-laid fill to construct A9 would have made placement of the tomb after the initial construction of A9 difficult, but there also was no evidence for disturbance in the layers around the tomb indicative of re-entry to the structure. Because the structure and tomb appear to have been built simultaneously, Structure A9 was likely raised as part of a single construction effort and built as a funerary temple to house the deceased. Based on the irregularity of the stones and lack of facing stones on the south wall of the tomb, the ancient Maya likely exited the tomb from the south side, sealing the tomb behind them after they placed the human remains and associated artifacts in the chamber. Archaeologists have observed similar examples of this manner of entry and exit to tombs at Cahal Pech (e.g., the H1 tomb) and at Pusilha (Jaime Awe, personal communication 2017).

Figure 17. Structure A9 tomb interior (photo courtesy of Hannah Zanotto and Jaime Awe).

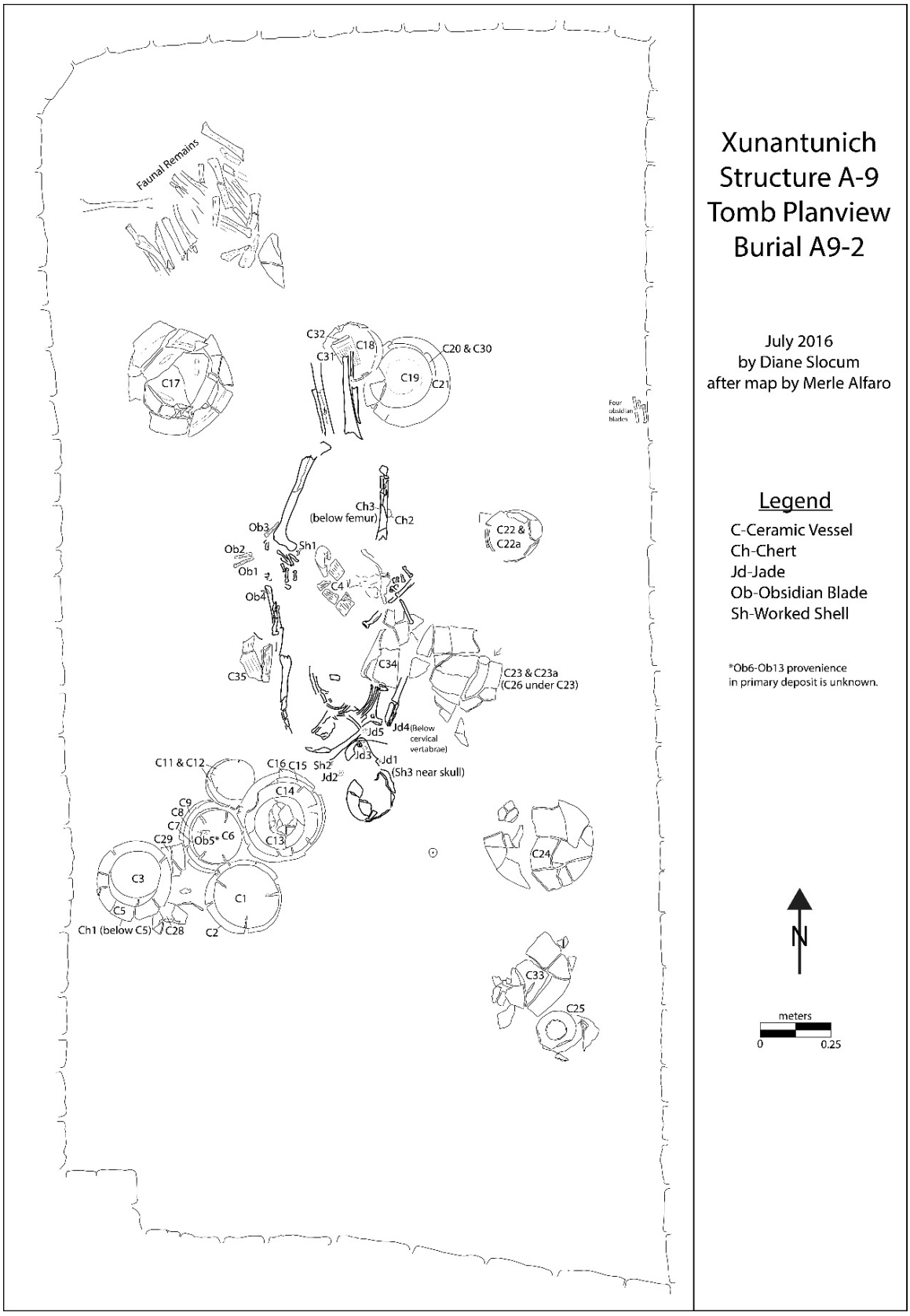

Figure 18. Plan view map of Structure A9 tomb.

Human Remains. The tomb contained the remains of an adult male, estimated to be between 30-39 years of age at death, lying in an extended supine position with his head to the south. The skeletal remains were robust leading the osteologists to suggest the remains were of "an individual who engaged in strenuous physical activity on a regular basis" (Tilden et al. 2017a:354). Two of the individual's teeth (the right maxillary canine and first premolar) have circular jade inlays. Based on the disarticulation of some of the skeletal remains, the osteologists also suggest the individual was likely placed on a wooden platform that originally stood above many of the ceramic vessels in the tomb.

In addition to the osteological analysis, samples of the human remains were selected for radiocarbon dating and strontium isotope analysis. A fragment of the human remains was sent to Pennsylvania State University AMS facility for radiocarbon dating. The analysis produced a date of AD 660-775 (2σ calibrated range), indicating that the individual was alive during Xunantunich's Hats' Chaak phase (AD 670-780) (Tilden et al. 2017a:354). Carolyn Freiwald at the University of Mississippi conducted the strontium isotope analysis on behalf of the BVAR project. The analysis results recorded a strontium value of 0.708376. This result fits the Upper Belize Valley strontium signatures, which have a mean value of 0.7086 and a range of 0.7082 to 0.7090 (Carolyn Freiwald, personal communication 2017).

Ceramic Vessels. The individual was placed in the A9 tomb with 37 whole ceramic vessels and one partial ceramic vessel. While the majority of the vessels were ash-tempered and less than half the vessels were polychromatic, the A9 tomb contained an exceptionally high number of vessels compared to other elite tombs in the Maya lowlands. Most of the vessels were located alongside or beneath the individual. Those located underneath the individual were likely beneath the above-mentioned wooden platform on which the interred originally rested (see

Tilden et al. 2017a:353). The vessels include C35 near the individual's left arm, C4 in the pelvic region, and C34 near the individual's right arm. Two stacks of nested vessels, including Vessels (C18-C21 and C30-C32), were located beneath or near the individual's feet. Five other stacks of nested vessels, containing a total of sixteen vessels (C1-C3, C5- C9, C11-C16, C28, and C29), were located southeast of the head of the individual. Other vessels were located along the east side of the individual including two (C25 and C33) in the southeast corner of the tomb, one vessel (C24) about 25 cm east of the individual's skull, three vessels (C23, C23a, and C26) stacked beside the individual's right arm, and two vessels (C22 and C22a) about 30 cm east of the individual's right femur. One vessel (C17) was located upside-down about 30 cm west of the individual's lower leg bones. Many of the vessels were broken and scattered from collapse of the tomb roof and were covered in white plaster, but XAC Project member's cleaned and reassembled the majority of them in order to conduct the analysis. In the process of cleaning and reassembling the vessels, additional vessels (C10, C27, and C36) were discovered that are not illustrated on the map. These vessels were discovered fragmented among the other tomb vessels, and their parts had likely been displaced during collapse of the tomb's roof.

For a detailed description of each ceramic vessel, see Appendix B. Based on Gifford's (1976) typology, the vessels are typical of the Tiger Run to Spanish Lookout complexes and date between AD 675 and 750. The vessels exhibited at least 11 different types and, in many cases, vessels within a type shared a similar form and size. As indicated in Chapter 4, in situations where vessels had decorative elements of a certain type but a composition of a different ware, the vessel was assigned to a ceramic system. Some of the vessels were decorated with iconographic and glyphic elements. Among these, three are noteworthy. Two vessels (C15 and C23a) provide glyphic information helpful in dating the tomb and have implications for considering the interred

individual's relationship to Naranjo's defeat of Caracol in AD 680. One vessel (C22a) provides stylistic elements relevant to understanding the Xunantunich-Naranjo relationship.

Vessel 15 is a Tunich Red-on-orange dish. On the inside center, the vessel has a stylized *Ajaw* glyph and the number eight written with a bar and three dots set to the right of the glyph (Figure 19). The *Ajaw* and numerical coefficient represent a *k'atun*, or 20-year period ending date of AD 692. This date may correspond to an event in the life of the interred individual. AD 692 is 12 years after the fall of Caracol. If the individual in the tomb was 30-39 years old at death, as suggested by the osteologists, then he was likely alive and in his prime during Naranjo's defeat of Caracol in AD 680.

Vessel 23a is a Benque Viejo Polychrome bowl and the decorations provide another calendrical record (Figure 20). On this vessel, the calendrical date is written in the same format as that on Vessel 15, with the numerical coefficient set to the right. The date is a 5 *Ajaw* commemorating a *lahuntun*, or half-*k'atun* (ten-year-period ending), corresponding to AD 721. This date is 41 years after the defeat of Caracol. If this date corresponds with a time in which the individual was alive or with the individual's death date, it seems unlikely, based on the relative youth of the individual in the tomb that he would have participated in the AD 680 defeat of Caracol.

Vessel 22a is a Saturday Creek Polychrome. The exterior surface is decorated with a band of black glyphs (Figure 21). Based on the style of the elements and the unusual grouping of elements, Christophe Helmke suggests the band of glyphs is a pseudoglyphic text. Helmke also argues that the style of these glyphs is significant since they resemble glyphs on sherds found at Xunantunich as part of tunnelling operations beneath the Castillo that stylistically resemble

glyphs on the bowls of similar shape produced during the reign of Naranjo's ruler who attacked and defeated Caracol in AD 680.

Vessel 22a also has decorative elements on its interior surface including large and small round black dots with red and black bands on the interior walls and an image of a cormorant on its interior base (Figure 22). The black spots possibly are indicative of jaguar spots, a common image in Maya iconography. The cormorant is also a common theme in Maya iconography and is most remarkable in this tomb context because it is more similar to cormorant images found in the Petén rather than images typically found in the Upper Belize Valley (Jaime Awe, personal communication 2018). Cormorant images on ceramic vessels in the Upper Belize Valley are often black and painted on the interior side or interior base of the vessel (Figure 23). The Petén-style cormorant is often red, displayed above water symbols, and located on the exterior vessel surface of the vessel (Figure 24). While the cormorant on Vessel 22a is on the vessel's interior basal surface, the color of the cormorant is more similar to images from the Petén. This cormorant is not the first time Upper Belize Valley researchers have seen evidence for Petén influence in the Upper Belize Valley in the form of waterfowl imagery. At Baking Pot, another major Upper Belize Valley center, a miniature vase was recovered with two waterfowls typical of the "Holmul Style" from the Naranjo area (Helmke and Awe 2012: Figure 13a-b).

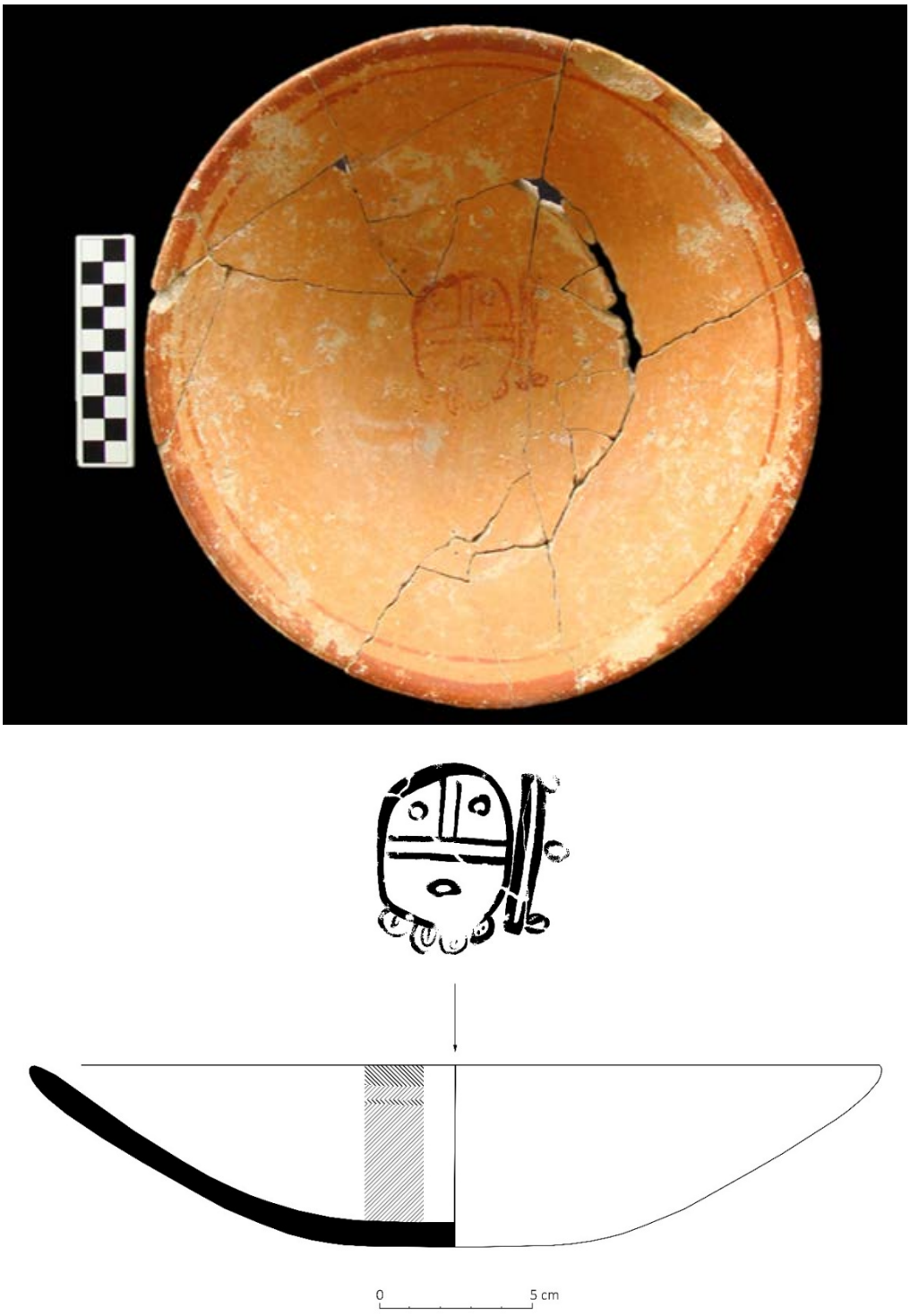

Figure 19. Vessel 15. Photo (top) by author. Drawings of Vessel 15's 8 *Ajaw* glyph (center) and cross section (bottom) courtesy of Christophe Helmke.

Figure 20. Vessel 23a. Photo (top) by author. Drawing (bottom) courtesy of Christophe Helmke.

Figure 21. Vessel 22a exterior (photo by author).

Figure 22. Vessel 22a. Photo of interior (top) by author. Drawing of cormorant image (center) and cross section (bottom) courtesy of Christophe Helmke.

Figure 23. Two typical Upper Belize Valley-style cormorant images. Ceramic vessel from Actun Chapat (left) and ceramic vessel from Cormorant Cave (right). Photos courtesy of Jaime Awe.

Figure 24. Two Petén-style cormorant images. Cormorant Vase, left (Reents-Budet 1994:360, Figure 7.7) and vase with owner from Holmul-Naranjo area, right (Reents-Budet1994:184, Figure 5.22).

Other associated artifacts. In addition to the ceramic vessels the individual in the tomb was interred with other artifacts including jade, obsidian, limestone, chert, faunal remains, and worked shell. The excavation team recovered six jade beads (Jd1-Jd6). Jd1-Jd5 were recovered from near the individual's neck and Jd6 was found below the individual's torso (Figure 25). The tomb also contained 13 obsidian blades (Figure 26). Four blades (Ob1-Ob4) were located left of the pelvis, Ob5 was located above one of the nested stacks of vessels southwest of the individual, and four were recovered along the eastern wall of tomb. The remaining blades were recovered from collapse material and likely displaced from their original positions within the tomb. The numerical designators Ob6-Ob13 were assigned to the blades post-excavation and do not correspond to a specific location within the tomb; thus, the specific locations of Ob6-Ob13 are not included on the tomb map. Table 4 provides a summary of the obsidian blade descriptions and measurements.

Figure 25. Jade beads (top: from left to right, Jd1-Jd6), limestone spindle whorl (lower left), two bone pendants with space for inlays (lower center), and bone ring fragment (lower right).

Figure 26. A9 tomb obsidian blades. From top left Ob11, Ob12, Ob13, Ob7, Ob8, Ob9, Ob10, Ob5, Ob4, Ob6, Ob2, Ob1, and Ob3). Photo courtesy of Julie Hoggarth.

Table 4. A9 Tomb Obsidian Blade Descriptions. Analysis courtesy of Julie Hoggarth.

Obsidian Number	Type	Length (cm)	Width (cm)	Thickness (cm)
Ob1	proximal blade fragment with bulb of percussion	6	1.3	0.37
Ob2	proximal (nearly complete) blade fragment	6.3	1.4	0.36
Ob3a	distal blade fragment	2.1	1	0.2
Ob3b	proximal blade fragment with bulb of percussion	4.6	1.3	0.38
Ob4	proximal blade fragment with bulb of percussion	5.5	1.2	0.3
Ob5	proximal (nearly complete) blade fragment	8.1	1.4	0.42
Ob6	proximal blade fragment with bulb of percussion	4.6	1.6	0.38
Ob7	distal blade fragment	3.1	1.2	0.02
Ob8	medial blade fragment	6.1	0.9	0.03
Ob9	distal blade fragment	4.8	0.8	0.03
Ob10	distal blade fragment	2.7	0.6	0.03
Ob11	distal blade fragment	2.5	0.9	0.26
Ob12	perforator/blood letter distal blade fragment	2.8	0.59	0.02
Ob13	medial blade fragment	2.2	0.82	0.02

Lithic remains recovered from the tomb include one pink limestone spindle whorl in the collapse debris (see Figure 25) and chert flakes. The excavators accounted for the exact provenience of four chert flakes (Ch1-Ch4) during excavation though it is unclear if the ancient Maya placed them purposefully in that context or whether their location is the result of collapse as there is nothing remarkable about these lithic specimens. Ch1 is a multidirectional core and was located below the western-most nested stack of ceramic vessels southwest of the individual's head (below south rim of C5). A core (Ch2) and a tertiary flake (Ch3, possibly limestone) were located below the individual's right femur, and a tertiary flake (Ch4) was located in ceramic vessel 20.

Near the individual's feet in the northwest corner of the tomb, we recovered a cache of animal remains. The cache included long bones of both white-tailed deer and big cats (either puma or jaguar). The XAC Project's excavators also located elements of the third phalanx of a big cat located near the individual's hands (Tilden et al. 2017a:358). The presence of both a predator and a prey animal in the tomb may be indicative of the predator prey-dichotomy in Maya society representative of the relationship between the elites (associated with predators) and the commoners (associated with prey) (Burke et al. 2017:434). Burke et al. (2017) argue that the presence of the third phalanx of a big cat near the individual's hand may indicate the individual was wearing a big cat pelt with the paws still attached and that the individual was not only of elite status but may have been a warrior. Other fauna material associated directly with the individual are worked shell artifacts and include half of a shell ring (Sh 1) located below the finger bones of the individual's left hand, and two shell ornaments (Sh 2 and Sh 3) with spaces for inlays located near the individual's head (see Figure 25).

The XAC Project submitted a sample of unworked deer bone from the tomb to the Pennsylvania State University AMS facility for radiocarbon dating. The analysis yielded a date of AD 690-890 (2σ calibrated range). While this range does overlap with dates from the human remains and ceramic vessels, because the date range is so wide, it is difficult to draw any firm conclusions from these results.

Discussion

The excavations of A9 revealed additional information to support the hypothesis that Xunantunich rose rapidly during the Late Classic period. Like many structures in the site core, A9 was built using a combination of construction pens and dry-laid fill in one clearly identifiable major construction phase. Indirect evidence in the form of earlier plaza floors indicate there may

have been an earlier structure beneath A9's terminal construction, but if there was an earlier building, it was considerably smaller than the A9 pyramid. Following the 2017 excavations, the XAC Project's conservators completed consolidation of A9's terminal phase architecture in the fall of 2017 (Figure 27).

Figure 27. Structure A9 post-conservation (photo courtesy of Jaime Awe).

Unique to A9 are the hieroglyphic panels that assist in placing the tomb and the structure in a specific historical context (Figure 28). Prior to the A9 excavations, previously known historical events outlined in Martin and Grube (2008) included the arrival of Lady Batz' Ek' to Caracol in AD 584, the birth of K'an II in AD 588, and K'an II's accession in AD 618. Caracol then twice defeated Naranjo, first in AD 626 and again in AD 631. K'an II dedicated the hieroglyphic stair at Caracol in AD 642. Naranjo avenged itself and defeated Caracol 38 years

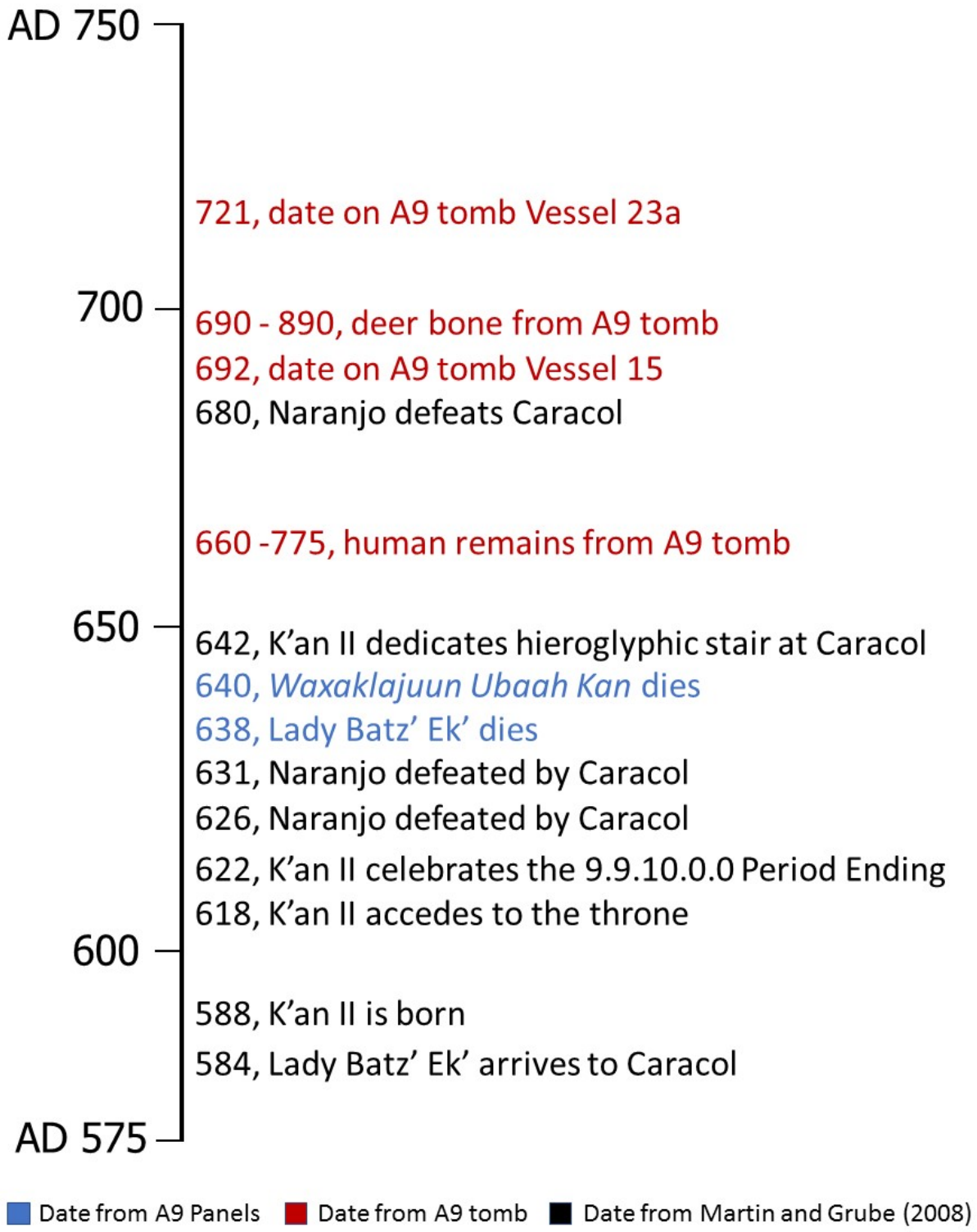

Figure 28. Historical timeline of events.

later in AD 680. The Xunantunich Panels 3 and 4 provide additional historical information including the death statement of Lady Batz' Ek' in AD 638 and confirmation of the previously conjectured move of the Snake-head dynasty seat from Dzibanche to Calakmul.

The presence of panels from the Naranjo hieroglyphic stair at Xunantunich provides evidence to support Xunantunich's close ties with Naranjo during the Hats' Chaak phase. If, as epigraphers (Helmke and Awe 2016a, 2016b; Martin 2000, 2017; Martin and Grube 2008) argue, the Naranjo hieroglyphic stair originated at Caracol, was subsequently removed by Naranjo, and sections were given as war booty to Xunantunich (and Ucanal) for assistance in Naranjo's defeat of Caracol in AD 680, then Xunantunich and Naranjo likely shared a close relationship during this time period. The historical data derived from the panels also helps determine that the panels could not have arrived at Xunantunich until after AD 680. The dates from the A9 tomb ceramic vessels (AD 692 and AD 721) coupled with the dates from the human remains (AD 660-775) provide two lines of evidence for the individual's placement in the tomb after the Naranjo's defeat of Caracol. The coinciding dates from the placement of the panels, the ceramic vessels, and the radiocarbon results indicate that A9 was constructed in the early Hats' Chaak phase and the elite status of the individual in the tomb indicate a strong likelihood that he may have played a role in Naranjo's defeat of Caracol. The isotope results from the interred individual suggest he was local to the Upper Belize Valley and not from the Naranjo polity. I further consider the implications of these results in relation to the significance of Xunantunich's relationship with Naranjo in the following chapter.

Chapter 6: Discussion and Conclusions

The primary purpose for my investigations at Xunantunich was to determine the sociopolitical significance of Structure A9 within the context of the Late Classic Upper Belize Valley. To address this question, I consider A9's significance both at Xunantunich and regionally. First, I place A9 in the temporal development of Xunantunich and recognize similarities and differences of A9 to other structures in the Xunantunich site core. Second, I examine how data from A9 provide evidence linking Naranjo and Xunantunich and how certain artifacts may be indicative of Naranjo's use of incorporation strategies to influence or exercise dominance over the subordinate polity. I additionally consider how A9 functioned to communicate power and commemorate events. Finally, I address several limitations of this research and offer recommendations for future related investigations.

Structure A9's Sociopolitical Significance at Xunantunich

Dating Structure A9's construction was a primary objective of the XAC Project investigations. Jamison (1996, 2010) had previously determined A9 was built and modified during the Late Classic period. My research sought to place A9 more precisely within Xunantunich's temporal sequence by determining if A9 was built in the Samal or Hats' Chaak ceramic phases. Based on the combination of hieroglyphic, ceramic, and radiocarbon dates, the investigations confirmed that Structure A9 dates to the beginning of the Hats' Chaak phase (AD 670-780), synchronous with the period of greatest growth at the site.

Like other structures at Xunantunich, A9 was built in one major construction phase. Though one or even two earlier phases of construction may exist beneath some of the terminal phase architecture, what is significant is that the construction phases at Xunantunich are relatively few and primarily date to a period later than those of other major Upper Belize Valley

sites such as Cahal Pech. Results from Structure B4 excavations at Cahal Pech, for example, provide evidence for an architectural sequence of 12 phases that spans the end of the Early Preclassic (around 1200 BC) to the Late Classic period (Awe 1992:133).

A9 was built using a combination of construction pens and dry-laid fill. Investigations by the Xunantunich Archaeological Project (1991-1997), the Belize Tourism Development Project (2000-2004), and the XAC Project (2015-present) revealed that construction pens were used as the primary construction method at the Xunantunich site core. Building with construction pens at Xunantunich provided the ancient Maya with a means to build structures quickly without having to take time to produce large quantities of mortar. The use of dry-laid fill contrasts with the building methods and materials observed at Cahal Pech. While the initial Cunil phase (1200-900 BC) platforms were constructed of marl, clay, and dirt, by the end of the Cunil phase, buildings were constructed using large quantities of lime plaster (Awe 1992:205). The use of lime plaster and mortar to construct buildings is a common architectural characteristic at Cahal Pech throughout the Preclassic and Classic periods though plaster is applied more generously during the former period (Awe 1992:222). The general decrease in use of lime plaster at Cahal Pech through time parallels the minimal use of lime plaster and dependency on dry-laid fill for construction at Xunantunich during the Late Classic. Similar to Xunantunich, the ancient Maya used construction pens in Late Classic construction at Cahal Pech (Figure 29).

The use of construction pens for monumental construction during the Late Classic may also have been employed for economic reasons; constructing with dry-laid fill required less mortar and, therefore, would have required less labor and other material resources needed to produce lime. Like at Cahal Pech, the use of construction pens and dry-laid fill was also a common building technique used at many other Late Classic Upper Belize Valley sites, and the

Figure 29. Excavated construction pens from the nearby Upper Belize Valley site of Cahal Pech. This construction technique was commonly used during the Late Classic period (photo courtesy of Jaime Awe).

use of these techniques to build at Xunantunich may have concurred with building trends of the time. Though the reason for the use of rapid-building methods may be socially and economically complex, the use of rapid-building techniques, combined with evidence for only a few construction phases at the main structures in the site core, fits well with previous interpretations suggesting that the site rapidly rose to prominence during the Late Classic period. Xunantunich's late, rapid growth is similar to that of the major center, Lower Dover (see Guerra and Collins 2016), another Upper Belize Valley site that dates to the latter part of the Late Classic and was built in a few phases of construction. Xunantunich's development, however, is generally atypical for the Upper Belize Valley and contrasts with that of other major sites, particularly with Cahal Pech (Awe 1992) and Baking Pot (Audet and Awe 2004), that were first established in the Preclassic period and gradually grew over time.

While archaeologists have verified Xunantunich's swift growth through architectural and ceramic data collected from their excavations of the many large structures in the site core, the specific political reasons for Xunantunich's swift Late Classic period development are still not fully understood. The ancient Maya at Xunantunich might have sought to rapidly establish a site core that emulated that of other major Upper Belize Valley centers. Many temple pyramids that comprise site cores at Maya sites housed the remains of deceased rulers and served to reinforce political legitimacy (Sharer and Traxler 2006:97). Structure B1 at Cahal Pech, for example, housed the remains of thirteen burials, eight of which were in large crypts (Santasilia 2015), and they likely contained the remains of members of a ruling lineage. The large pyramidal structures at Xunantunich (e.g., Structures A2, A3, and A4) are similar in size to Cahal Pech's Structures B1, B2, and B3, and their triadic assemblage is also similar to that of Cahal Pech and other major centers in the valley, such as Pacbitun, Baking Pot, Blackman Eddy, El Pilar, and Chan (Awe et al. 2017). Viewers may have assumed that the Xunantunich monumental structures housed a similar line of elite rulers (or at least were of similar significance) to those of nearby centers.

Interestingly, while the structures at Xunantunich were similar in size and appearance to those of other more established centers, the building techniques employed and the contents of the structures are not the same. Not only is the architecture of Xunantunich of poorer quality than that of neighboring polities, but the buildings at Xunantunich do not house large numbers of elite burials. Though archaeologists have excavated along the axial lines of many of the large pyramidal structures in the Xunantunich site core, including A1 (Zeleznik 1993), A2 (Jason Yaeger, personal communication 2018), A3 (Santasilia and Tilden 2016), A4 (Audet 2006), and El Castillo (Leventhal 2010), the Xunantunich A9 tomb contains only the second elite burial found at Xunantunich to date. The first elite burial discovered at Xunantunich was found in

Structure A4 (Burial 1) and was placed in a small crypt deep inside the pyramid (Audet 2006:143-147). The interred individual was oriented in an extended supine position with the head to the south. Associated grave goods included fragments of polychrome vessels, some of which were found above the crypt, seven chert eccentrics, three obsidian blades and one core, and two jade beads. Audet (2006) argues that Burial 1 in Structure A4 is an elite burial because of the burial's location on the east side of the main plaza and the large amount of associated funerary items, though she recognizes that the A4 Burial 1 grave items are insubstantial compared to other axial interments recovered at Cahal Pech and Baking Pot (Audet 2006).

The contrast in the size of the monumental structures and lack of elite burials at Xunantunich compared to those typical at other monumental site cores has perplexed archaeologists. If the elite were not buried in the site's largest eastern pyramidal structures, then where were the elite buried at Xunantunich? The A9 tomb burial partially answers this question. One elite individual was interred in Structure A9 and appears to have been associated with Naranjo's defeat of Caracol in AD 680. What is unusual, however, is that despite the tomb's relatively large size, like the A4 crypt, the artifacts within the A9 tomb are not as extravagant as those from some elite burials at other Upper Belize Valley sites. Archaeologists often consider exotic items found in tombs, such as jadeite or imported ceramics, as indicators of wealth. The A9 tomb contained six jadeite beads, a small number compared with the amount of jadeite found in two Late Classic tombs recovered in the eastern shrine of Group 1 at Baking Pot, or in tombs found at Structure B1 at Cahal Pech. One of the Baking Pot tombs contained 260 pieces of greenstone, including 54 beads and a mosaic mask (Audet and Awe 2004:57). The difference in wealth between Xunantunich and other nearby centers may be due to the difference in time in which these centers developed. Sites such as Cahal Pech and Baking Pot grew slowly over a

more than a thousand-year period and had long ruling lineages that would have had time to accumulate wealth. Xunantunich, however, rose late and its rulers may not have had the time to accumulate the same wealth as these more established sites. Xunantunich instead appears to have sought to emulate the appearance of wealth through large-scale construction.

The Xunantunich A9 tomb also contained an exceptionally large number of whole vessels as compared to other large tombs discovered in the Upper Belize Valley. The elaborate Terminal Classic tomb in Structure H1 at Cahal Pech, for example, contained only 11 ceramic vessels (Awe 2013), as compared to the 38 ceramic vessels found at A9. Many of the Xunantunich A9 tomb vessels are polychrome, which is generally considered a characteristic of high-status, but most of the vessels are ash-tempered and are similar in quality to locally made vessels. If the pottery is local, the A9 tomb contents are similar to those at other burials and caches at Xunantunich, which Jamison (2010) observed contained mostly local goods. LeCount and Yaeger (2010b) argue that the lack of foreign items indicates Xunantunich lacked strong foreign ties and was not receiving gifts from neighboring or distant polities, thus providing additional support that Xunantunich was directly subordinate to Naranjo during this period. This argument, however, is problematic for a few reasons. First, there is the possibility that local material may have been used by local rulers to legitimize status during times of greater autonomy (see Jamison 2010:144). Second, the argument contradicts the idea that foreign symbolism would increase if the more dominant polity exercised direct control.

Examining the Xunantunich-Naranjo Relationship

LeCount and Yaeger (2010b) argue Naranjo exercised formal control over Xunantunich during the early Hats' Chaak phase when the Xunantunich Maya built Structure A9. LeCount and Yaeger (2010b:367) recognize that their conclusions about the shifting relationships between

Xunantunich and Naranjo are unsupported by textual data describing historical events. The presence of Panels 3 and 4 at Xunantunich, which are portions of the Naranjo hieroglyphic stair (Helmke and Awe 2016a, 2016b), provide evidence that Xunantunich was linked to Naranjo during the early part of the Hats' Chaak phase. The panels, however, do not explain the specifics of the type of relationship between the two sites. Moreover, even if present, textual data alone could not fully explain the complex processes that transformed Xunantunich into a provincial capital (LeCount and Yaeger 2010b). LeCount and Yaeger (2010b) base their argument for Naranjo's domination on theories of incorporation strategies (Table 5 and see Chapter 3). The panels and Vessel 22a from the A9 tomb may serve as archaeological correlates of incorporation strategies related to gift exchanges, foreign symbolism, war events, and restructured sociopolitical institutions or local leadership.

Gift exchanges and foreign symbolism. Identifying gift exchanges between two polities demonstrates a connection between those polities, but because gift exchanges may be present across the entire range of polity-to-polity relationships, gift exchanges are not particularly useful for demonstrating some types of connections between two sites. Furthermore, gifts may not always be visible archaeologically. For example, LeCount and Yaeger (2010c:32) refer to Luttwak's (1976:33-36) description of gifts provided from Rome to German tribes of the Rhine and Danube as including "land, money, and favors and special prerogatives, including citizenship."

Evidence for gift exchange is, however, the most common archaeological correlate for evidence of a patron-client relationship. Patron-client relationships, therefore, are best identified when evidence for gift-exchange is present and archaeological correlates from the remaining categories are lacking, as is the case at Xunantunich during the Samal phase (see Table 5). It may

Table 5. Summary of LeCount and Yaeger's (2010b) hypothesized dynamic political relationship between Xunantunich and Naranjo.

Date (AD)	Phase	Proposed Incorporation Strategy	Evidence
600-670	Samal	Patron-client or Independent allies	• Two ceramic fragments with Naranjo-style text and Naranjo's emblem glyph found in Xunantunich Samal phase fill • Naranjo weakened following defeat by Caracol's AD 631
670-740	Early Hats' Chaak	Dependent allies or Direct-rule	• Xunantunich north palace complex (Str. A11) becomes royal residence either established by or closely connected with Naranjo • Xunantunich new site architectural layout emulates Naranjo • Xunantunich architectural displays represent a divine kingship ideology • Similar ceramic serving wares at both sites • Congruent timelines at both sites • Lack of royal throne at Xunantunich • Lack of high status, imported items in caches and burials at Xunantunich
740-780	Late Hats' Chaak	Reestablishment of autonomy at Xunantunich	• Naranjo politically weakened from war with Tikal in AD 744 • Presence of royal throne in Str. A15 at Xunantunich (later two additional thrones in Str. A15 may indicate decentralization of power) • "Desecratory termination" of north palace complex (Str. A11) indicates a new ruling family no longer affiliated with Naranjo is present at Xunantunich
780-890	Tsak'	Patron-client or Independent allies	• Xunantunich Panel 2 (AD 780-820) displays Xunantunich's emblem glyph • Three stelae on north side of Xunantunich Str. A1 refers to two rulers, one from Xunantunich and one from Naranjo (AD 820), each with the title *k'uhul ajawtaak*

also be difficult to identify archaeologically the difference between gifts that are indicative of a patron-client relationship and foreign symbols that are indicative of external control. One way to differentiate between the two may be to focus on potential uses and meanings of the type of artifact under consideration. LeCount (2001) observes that the relative frequency of drinking

containers for chocolate is higher in elite contexts at Xunantunich and argues that some decorated ceramic vessels, such as chocolate drinking vessels, may be indicative of political ritual among the ancient Maya. Moreover, certain types of decorated vessels may have been exchanged to cement social alliances among elites (Taschek and Ball 1992). The Naranjo-style ceramic vessel sherds recovered from a Samal phase fill context at Xunantunich contained the Naranjo emblem glyph and were likely interpreted as the remains of a gift rather than a foreign symbol because they were part of a drinking vessel typical for strengthening political relations.

Similarly, Vessel 22a from the A9 tomb, which is similar in style to the sherds recovered from the Samal phase context (Tilden et al. 2017a), may be interpreted as a gift or foreign symbol. Foreign symbolism may include symbols, titles, or status items and is thought to become more common at the lesser polity, as the control of the dominant polity increases (LeCount and Yaeger 2010c). The ceramic vessel (Vessel 22a) from the A9 tomb contains a cormorant image that is stylistically similar to cormorants on Naranjo-area vessels. Tilden et al. (2017a:372) argue that the style of the pseudoglyphs on the vessel's exterior is similar to those on bowls produced during Naranjo's ruler *K'ahk' Xiiw Chan Chaahk*, the same ruler who attacked and defeated Caracol in AD 680 (Martin and Grube 2008:73). Future chemical analysis may determine if the vessel was made locally in the Upper Belize Valley or in the Petén, but, for now, the two possibilities for Vessel 22a's origin may be considered. If the vessel were produced in the Petén, it may have served as a gift from Naranjo or from elsewhere in the Petén. On the other hand, if it were made locally in the Upper Belize Valley, the vessel may have been made with the intent of emulating the Petén-style.

War events. Xunantunich Panels 3 and 4 provide evidence for Xunantunich's participation in the AD 680 war between Naranjo and Caracol. According to LeCount and

Yeager (2010c), evidence for war events are common archaeological correlates in both dependent ally and direct-rule relationships. But are Panels 3 and 4 indicative of a relationship in which Naranjo exercised a greater amount of control over Xunantunich? The presence of the panels at Xunantunich may be interpreted in a few ways. Helmke and Awe (2016a, 2016b) argue that the panels served as a type of war booty for Xunantunich's assistance to Naranjo in the defeat of Caracol. In this instance, the panels may be interpreted as gifts for Xunantunich's military support during Naranjo's defeat of Caracol. Again, what is problematic is that gifts are an archaeological correlate at the subordinate polity across the entire continuum of political relationships. If Xunantunich remained autonomous following the war, then Xunantunich may have functioned militarily in a similar manner to independent polities that Smith (1996:141) refers to as "client-states." These client-states were on the edges of the Aztec Empire and provided soldiers for the Aztec imperial army in place of a regular tribute payment, operating as "strategic provinces" for Aztec military operations (LeCount and Yaeger 2010c:32). If Xunantunich was as a "client-state" of Naranjo, the site may have served as a strategic province by providing access to trade resources along the Mopan River or as a strategic location from which to exercise military control over the Upper Belize Valley.

In an alternate scenario, the military alliance between Xunantunich and Naranjo resulted as Naranjo developed into a multi-polity state. LeCount and Yaeger (2010c:41) observe that in many cases, military alliances between polities were not necessarily harmonious, such as those formed between Calakmul and Naranjo against Caracol in the early 7th century (Martin and Grube 2008:72-75). Naranjo could have also placed the panels to display its power at Xunantunich. Additional lines of evidence are necessary, however, to determine which of these situations most realistically represents the Xunantunich-Naranjo relationship.

Restructured sociopolitical institutions: local leadership. The relationship between two polities may also be considered in light of the restructuring of sociopolitical institutions (LeCount and Yaeger 2010c). One line of evidence for restructured institutions is the placement of individuals from the dominant polity in power at the subordinate polity. LeCount and Yaeger (2010b) recognize the possibility that Xunantunich's rise to power may have resulted from a local family's achievement of elevated status (either from internal or external support) or the insertion of external leadership. In support of the latter scenario, LeCount and Yaeger (2010b) suggest that Naranjo may have installed a Petén leader or family at Xunantunich and that they resided at the north palace complex during the Hats' Chaak phase (Yaeger 2010).

The argument about internal versus external rule is important for understanding Maya political organization and whether rulership was based on kinship or kingship. McAnany (2013) suggests that rulership in Maya society was kin-based in the Preclassic period and shifted to king-based rule during the Classic period. She cautions, however, that despite this general change in leadership, not all Classic Maya society was necessarily under the control of kings from large centers (144). In support of Marcus' (1993) argument that political organization varied across both time and space, McAnany (2013) argues that unlike the Petén, the Upper Belize Valley may have continued to operate under kinship rule in the Classic period rather than falling under the dominant rule of nearby larger centers such as Caracol, Naranjo, Lamanai, and Nohmul. Her argument is based in part on the lack of hieroglyphic texts with long count dates in the Upper Belize Valley, which are common indicators of dynastic lineages in the Petén. Kingship centralization of power was typically based on a few lineages and would have been in competition with local family authority (McAnany 2013:133). If Naranjo exercised formal control over Xunantunich as authority in the region became more centralized, there certainly

would have been competition between the Petén lineages and local Upper Belize Valley family lineages.

Identifying the place of origin of Xunantunich's rulers is one means for determining the extent of external authority present at the polity. The results of the isotope analysis from the individual in the A9 tomb most closely fits known isotope signatures of the Upper Belize Valley (see Chapter 5 and discussion of its limitations below). If the individual in the A9 tomb was an important Xunantunich leader in the early Hats' Chaak phase as the evidence from Panels 3 and 4, radiocarbon results, and analysis of funerary objects suggests, the isotope analysis results indicate that this leader was not from the Petén as would be expected if external formal rule from Naranjo was the case at Xunantunich during the early Hats' Chaak.

Meaning and Commemoration

The data collected from Structure A9 shed light on Xunantunich's development and political history, but Structure A9's sociopolitical significance is also related to the structure's daily function at the site. Of primary importance to A9's function is the structure's location in the site core. A9 is located on the western edge of the largest plaza (Plaza AII). Plaza AII is part of what would have been a large, public space, likely comprising one larger plaza in combination with Plaza AI during the Hats' Chaak phase, prior to Structure A1's construction in the Tsak' phase. Previous researchers (e.g., Cap et al. 2017) have maintained that large plazas at sites were used for market spaces and other community activities. On days the ancient Maya used the main plaza at Xunantunich for community events, Structure A9 and the panels would have been highly visible to large numbers of people. Pyramidal structures that lined these plazas in ancient Maya site cores were used for public ritual events (Sharer and Traxler 2006:85), and A9 and the panels would also have been visible during ceremonial events held at Structure A9. It is A9's location

beside a public plaza that suggests the structure was likely not only a place for enacting community rituals, but that A9 may also have functioned to communicate to the public. Two aspects of A9's communicative function include what the ancient Maya intended to communicate with A9 and how the structure functioned to communicate. Rapaport's (1988) three levels of meaning (see Chapter 2) are useful for exploring how A9 communicated.

High-level meaning is related to people's underlying beliefs, philosophies, or world views (Rapaport 1988). In Maya archaeology, high-level meaning in the built environment is often studied in relation to ideology. Structure A9 is similar to other Maya pyramidal temples in that it houses a tomb that may reflect aspects of ideology, such as connections to the underworld. Structure A9 also likely had a ritual function and was a place at which the ancient Maya conducted ceremonies. The caches of eccentric lithics discovered beneath A9's stela and at the base of the axial stairway are comprised of artifacts of particular numbers, materials, and shapes that reflect Maya ideology (Sullivan 2017). Ideology and ritual are essential aspects of monumental Maya architecture (e.g., Ashmore and Sabloff 2002; Becker 1992; Freidel et al. 1993). Yet in this analysis of Structure A9, the data I emphasize highlight middle-level and low-level meaning. I recognize, however, that for the ancient Maya, high-level meaning, such as ideology, and middle-level meaning, such as rulership or power, were frequently intertwined.

Low-level meaning of Structure A9 was likely related to the presence of the panels in front of A9 and the building's location in the Xunantunich epicenter. Structure A9's position in the site core as well as A9's physical relationship to other structures may have served to cue unconscious behavior by directing movement around or restricting access to the structure. The mnemonic cues from A9 may have triggered what at the time were considered socially important memories, a key characteristic of many monumental buildings. The specifics of these memories

and how they functioned in relation to power may be more closely linked to middle-level meaning.

Rapaport's (1988) definition of middle-level meaning relates to how the built environment communicates power and identity. Because A9 is a monumental structure and is located in Xunantunich's elite civic-ceremonial center, A9 clearly contributed to expressing power at the site. Public buildings typically are indicative of political or social power because of the large quantity of labor, materials, and organization required for public construction. A9's meaning to those who viewed and interacted with the structure at ancient Xunantunich, however, was likely more specific than a general representation of elite power and status. In the case of Structure A9, the placement of the two carved monuments in front of the structure indicate A9 communicated not simply a display of excessive resource allocation, but an expression of political power related to a specific geopolitical event: Xunantunich's assistance in the defeat of Caracol. In this sense, Structure A9 is characteristic of monumental structures that, as Van Dyke (2009) argues, are built intentionally to create memories for social or political motives. Thus, it seems reasonable to conjecture that Xunantunich's assistance with the defeat of Caracol in AD 680 incited the building of A9, and A9 subsequently communicated political power by discursively commemorating this event.

The structure was also built at a specific point in history to house the remains of an honored individual. For the Maya, the ability to exercise power was typically related to another aspect of middle-level meaning, identity. In this study, identity refers to a person's identity—where a person was from and who they were related to. In my analysis of A9's contents, I consider who specifically was interred in A9 and how that individual's place of origin relates to the rise of Xunantunich. The isotope analysis indicates the individual was local to the Upper

Belize Valley and suggests that Xunantunich's rise to power was not entirely due to external influence from the Petén. It is possible that even if Naranjo had significant impact on Xunantunich's growth, Naranjo's leaders may have relied on local Upper Belize Valley kinship power relations to gain control over the surrounding community rather than inserting an external person in a leadership position.

Like many temple pyramids that were built to commemorate rulers, the ancient Maya built A9 intentionally to honor a specific individual. The purposeful building to honor a deceased leader provides another example of how the ancient Maya employed discursive memory when constructing A9. Considering the relationship between the interred individual and the historic event that incited the building of A9 also offers an opportunity to examine how memory may have functioned in both public and private spaces at the Xunantunich site core. Joyce (2003) argues that memory in public space may sometimes be linked to memory in private spaces, such as tombs. At Structure A9, space is divided into that highly visible area outside of the structure in the public plaza and the hidden tomb within the structure. It is difficult to determine the details of what the ancient Maya who used the public plaza space at Xunantunich knew about these historical events, as well as whether commoners would have been able to read the hieroglyphic inscriptions. Regardless of commoners' ability to read hieroglyphic texts, Panels 3 and 4 at Xunantunich are only part of a much longer inscription that made up the Naranjo hieroglyphic stair and only provide a small portion of a longer narrative. Panel 4 was not found in its original location (see Chapter 5), so Panel 4's placement is uncertain. The ancient Maya placed Panel 3, which was found standing in what is believed to be its original location (see Chapter 5), on its side in a manner that did not facilitate reading the text. Because Panels 3 and 4 were not meant to be read, the panels in front of A9 were likely not an overt propagandistic message like many

Maya inscriptions but instead served as a symbol of power. The placement of the panels in front of A9 extended this power or intention to the structure itself.

While the hieroglyphic panels located beside Structure A9 would have served to publicly commemorate events related to the placement of the monuments, the placement of a tomb inside Structure A9 would have been more private. Specific details of the tomb's contents such as the dates or images on the hieroglyphic vessels or even the identity of the individual may have been known or remembered by only a few people. The data collected from temporal analysis, however, suggest that the publicly visible monuments and the tomb are linked. The radiocarbon dates from the interred individual and the dates of ceramic vessels immediately post-date the likely arrival time of the hieroglyphic panels. That the arrival of the panels corresponds with the death of the interred individual suggests that the placement of the panels beside Structure A9 not only commemorate regional political relations, but also may memorialize the interred individual who likely played an important role in the AD 680 conflict between Naranjo and Caracol.

Limitations and Recommendations for Future Research

While Structure A9, the tomb, and the panels provide data that more conclusively connect Xunantunich to Naranjo, drawing conclusions about the specifics of Naranjo-Xunantunich relationship is still a work in progress. Knowledge of this relationship is partly restricted by the limited archaeological work conducted at Naranjo due to dangers related to looting and its location in an area known for illegal activities in Guatemala. Short of the recording of hieroglyphic texts (Closs 1984; Graham 1978, 1980; Morley 1909), and a salvage operation in 2005 (Fialko 2009), little archaeological work has been conducted at this major Petén center. The paucity of data from Naranjo contrasts sharply with the large quantity of research conducted in the Upper Belize Valley. Belize Valley researchers (e.g., Andres et al.

2014, Helmke and Awe 2012, Reents-Budet 1994:294-305) have observed numerous examples of Naranjo's influence within the Upper Belize Valley. The interaction between the two regions was certainly not unidirectional, especially as Naranjo was not located near a river and likely relied heavily on the Upper Belize Valley for trade. Additional research in the Naranjo area could further clarify this relationship.

Modern-day perceptions related to the presence of the Belize-Guatemala border may also influence interpretations about the relationship between the two sites. Maps of the Upper Belize Valley indicating ancient Maya sites typically include the modern Belize-Guatemala border, visually reinforcing a separateness between the two areas. While the presence of this border on maps is critical for identifying project locations, the border would not have existed in ancient times, and its modern presence may skew archaeologists' impressions of the connection and relationship between the two areas. Even the use of the term "foreign" to refer to Naranjo or other sites in the Petén and "local" to refer to Upper Belize Valley sites may contribute to a perception of separateness or otherness that may have been less distinct or nonexistent in the Late Classic period. To gain a clearer picture of the types of relationships between ancient polities, we must ignore modern-day boundaries and consider natural land forms, resources, and the routes that connect polities.

Both the lack of data from the Petén and potential misconceptions related to the modern-border may also impact how archaeologists interpret isotope results. Naranjo is located quite close (14 km or less than a day's walk) to Xunantunich. Isotope analysis used to identify origins and movements of ancient peoples continues to be refined, but currently there are not adequate data to clearly differentiate the Upper Belize Valley from the Naranjo area. Isotope analysis results of animal remains are used to determine the likely range of isotope values for certain

regions. At present, the remains of only one modern land snail have been analyzed from Naranjo, and the isotope analysis results for this snail shell fit within Upper Belize Valley strontium signatures (Freiwald 2014:113). As the science of isotope analysis advances, archaeologists may be able to more precisely define the spatial boundaries that indicate an individual's place of origin. Because of Naranjo's proximity to Xunantunich, however, there is the possibility that isotope results from Naranjo may later be determined indistinguishable from those of the Upper Belize Valley.

This thesis touches on many areas that constitute avenues for future research. Additional excavation work at Structure A9 may include exploring beneath the stair-block, which is west of the tomb capstones and east of the summit of the structure. The stair-block is a common location on pyramidal structures to find burials or caches, and deep vertical exploration beneath the stair-block may also provide another opportunity to identify an earlier structure, if present, beneath the terminal phase architecture. Further analysis of artifacts recovered from A9 may include chemical analysis of the ceramic vessels from the A9 tomb. Neutron activation analysis of the A9 tomb vessels, as well as other vessels at Xunantunich and neighboring Upper Belize Valley sites, may shed light on where the vessels were produced and contribute to knowledge of trade relations among polities. Future finds from excavations at Naranjo and Xunantunich may also add to or alter the present interpretations of the relationship between the two sites.

Conclusion

My analysis of Structure A9 sought to interpret the building's local and regional sociopolitical significance within the context of Xunantunich's Late Classic period development. At the local level, my analysis of Structure A9 demonstrates this building is similar to the other structures in the site core in that it was built in one construction phase and dates to the Late

Classic period, thus supporting the argument for Xunantunich's late, rapid development. Pyramidal structures at Xunantunich, however, do not share all of the same characteristics. Structure A9 is unique from other structures at the site because it houses a large tomb. Xunantunich's regional significance is largely understood in this thesis through examining the site's connection to Naranjo. The panels in front of A9 provide data that more decisively connect Xunantunich to Naranjo, but drawing conclusions about the specifics of the Naranjo-Xunantunich relationship is still a work in progress. Furthermore, this analysis revealed that A9 likely had a memorial function, commemorating a specific event and individual associated with that event. This deeper look at Structure A9 sheds light not only on Xunantunich's site chronology and regional political relationships, but also provides a means for considering specifically how pyramidal monumental structures may have functioned in ancient Maya civic-ceremonial centers.

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Appendix A: Structure A9 Artifacts from Non-tomb Contexts

Table 6. Ceramic Sherds from Non-tomb Contexts.

Operation	EU	Level	Lot	Lot Description	Diagnostic	Non-Diagnostic	Lot Total
A92016	A9-1	1	A9-1-1	Humus and collapse	230	661	891
A92016	A9-1	1	A9-1-2	Collapse	69	132	201
A92016	A9-2	1	A9-2-1	Collapse	193	576	769
A92017	A9-2	1	A9-2-1	Humus and collapse	146	301	447
A92016	A9-3	1	A9-3-1	Plaster and ballast	7	15	22
A92016	A9-3	2	A9-3-2	Plaster and ballast	4	8	12
A92016	A9-3	3	A9-3-3	Ballast	3	6	9
A92017	A9-4	1	A9-4-1	Collapse	216	441	657
A92016	A9-4	2	A9-4-2	Collapse	223	976	1199
A92016	A9-4	2	A9-4-3	Below lower construction steps	4	21	25
A92016	A9-4	3	A9-4-4	Ballast	3	10	13
A92016	A9-4	4	A9-4-5	Ballast	3	1	4
A92017	A9-5	1	A9-5-1	Marl from conservation	1	0	1
A92017	A9-5	3	A9-5-2	Fill below Floor 1	11	28	39
A92017	A9-5	5	A9-5-4	Fill below Floor 4	5	18	23
A92017	A9-6	3	A9-6-4	Fill below floor 2	11	0	11
A92017	A9-6	4	A9-6-3	Fill below floor 3	2	6	8
A92017	A9-6	5	A9-6-4	Fill below Floor 3	0	1	1
A92017	A9-6	6	A9-6-5	Fill below Floor 4	13	30	43
A92016	A9-Stela	1	A9-Stela-1	Humus and collapse	3	8	11
A92016	A9-Stela-base	1	A9-Stela-base-1	Humus and collapse	28	86	114
A92016	A9-Summit	1	A9-Summit-1	Fill	29	14	43
A92016	A9-Summit	2	A9-Summit-2	Backfill	20	18	38
A92016	A9-Summit	3	A9-Summit-3	Fill	79	73	152
A92016	A9-Summit	3	A9-Summit-4	Fill	58	119	177

Operation	EU	Level	Lot	Lot Description	Diagnostic	Non-Diagnostic	Lot Total
A92016	Gann's Hole	1	n/a	Backfill	54	174	228
A92016	Stair	1	A9-Stair-1	Collapse	40	119	159
				Total	1455	3842	5297

Table 7. Chert from Non-tomb Contexts.

Operation	EU	Level	Lot	Lot Description	Pri	Sec	Ter	Core	Shatter	Uniface	Biface	Blade	Flake Fragment	Lot Total
A92016	A9-1	1	A9-1-1	Humus and collapse	16	42	20	9	38	1	3 Early	0	0	129
A92016	A9-1	1	A9-1-2	Humus and collapse	3	7	5	6	8	0	0	1	0	30
A92016	A9-2	1	A9-2-1	Humus and collapse	5	18	15	4	25	1	4 Early, 1 Middle	1	1	75
A92017	A9-2	1	A9-2-1	Humus and collapse	0	4	0	1	2	0	2 Early, 1 Late	0	0	10
A92016	A9-4	1	A9-4-1	Collapse	1	3	2	0	3	0	2 Early	0	0	11
A92016	A9-4	2	A9-4-2	Collapse and fill	66	304	993	4	176	0	5 Early, 3 Middle	0	102	1653
A92016	A9-4	2	A9-4-3	Below lower construction steps	0	2	1	0	0	0	0	0	0	3
A92016	A9-4	3	A9-4-4	Ballast	1	1	1	1	2	0	0	0	0	6
A92016	A9-4	4	A9-4-5	Ballast	0	19	24	3	72	0	0	0	0	118
A92016	A9-Stela-base	1	A9-Stela-base-1	Humus and collapse	5	22	14	23	20	0	0	0	0	84
A92016	A9-Summit	1	A9-S-1	Fill	0	10	5	2	8	0	0	0	0	25
A92016	A9-Summit	3	A9-S-2	Fill	2	5	3	2	2	0	0	0	0	14
A92016	A9-Summit	3	A9-S-3	Fill	0	2	1	3	4	0	0	0	0	10
A92016	A9-Summit	3	A9-S-4	Fill	2	19	6	1	7	0	2 Early	0	0	37
A92016	Gann's Hole	1	n/a	Backfill	3	7	2	2	0	2	0	0	0	16
				Total	104	465	1092	61	367	4	18	2	103	2221

Pri=primary flake, over 50% cortex; Sec=secondary flake, 50% or less cortex; Ter=tertiary flake, no cortex; Shatter=no distinguishable platform, bulb of percussion, or flake scars; Uniface=modified on only one face either on lateral or distal margins; Biface=modified on both faces on either lateral or distal margins; Early, Middle, Late denotes stage; Flake Fragment=medial or distal portions of flakes that are missing the platform and bulb of percussion; Blade=flake is twice as long as it is wide

Table 8. Granite from Non-tomb Contexts.

Operation	EU	Level	Lot	Lot Description	Frequency	Notes
A92016	A9-1	1	A9-1-1	Humus and collapse	1	small fragment (about 5 cm x 2 cm) like tiny mano
A92016	A9-1	1	A9-1-1	Humus and collapse	1	metate fragment
A92016	A9-1	1	A9-1-1	Humus and collapse	1	groundstone adz, likely andesite
A92016	A9-1	1	A9-1-1	Humus and collapse	2	two mano fragments
A92016	A9-1	1	A9-1-1	Humus and collapse	1	mano/adz fragment, battered as hammer on end
A92016	A9-1	1	A9-1-2	Collapse and backfill	1	mano/adz fragment
A92016	A9-1	1	A9-1-2	Collapse	1	mano fragment collected during conservation work
A92016	A9-2	1	A9-2-1	Humus and collapse	1	mano/adz fragment
A92017	A9-2	1	A9-2-1	Humus and collapse	2	unknown
A92017	A9-4	1	A9-4-1	Collapse	1	metate fragment
A92016	A9-Stela	1	A9-Stela-1	Humus and collapse	1	mano fragment
A92016	A9-Summit	3	A9-Summit-4	Fill	1	mano fragment

Table 9. Limestone from Non-tomb Contexts.

Operation	EU	Level	Lot	Lot Description	Frequency	Notes
A92016	A9-1	1	A9-1-1	Humus and collapse	1	mano fragment
A92016	A9-1	1	A9-1-1	Humus and collapse	1	bark beater fragment
A92016	A9-1	1	A9-1-1	Humus and collapse	1	possible bark beater fragment
A92016	A9-4	2	A9-4-2	Collapsed fill in tomb	1	worked limestone fragment
A92016	A9-4	2	A9-4-2	Collapse at base of stairs	2	painted stucco
A92016	A9-Summit	3	A9-Summit-4	Fill	21	painted stucco

Table 10. Quartz from Non-tomb Contexts.

Operation	EU	Level	Lot	Lot Description	Frequency	Notes
A92016	A9-Stela-base	1	A9-Stela-base-1	Collapse	1	pink and white mottled hammerstone

Table 11. Slate from Non-tomb Contexts.

Operation	EU	Level	Lot	Lot Description	Frequency	Notes
A92017	A9-2	1	A9-2-1	Humus and collapse	5	unworked
A92016	A9-4	2	A9-4-2	Collapsed fill in tomb	1	worked
A92017	A9-6	6	A9-6-5	Fill below Floor 4	1	unknown
A92016	A9-Summit	1	A9-Summit-1	Fill	1	drilled slate pendant

Table 12. Obsidian from Non-tomb Contexts.

Operation	EU	Level	Lot	Lot Description	Frequency	Notes
A92016	A9-1	1	A9-1-1	Collapse	1	
A92017	A9-2	1	A9-2-1	Humus and collapse	1	
A92016	A9-4	2	A9-4-2	Collapsed fill in tomb	1	
A92016	unknown	unknown	unknown	unknown	1	from unknown A9 context
A92016	unknown	unknown	unknown	unknown	3	from unknown A9 context

Table 13. Jadeite from Non-tomb Contexts.

Operation	EU	Level	Lot	Lot Description	Frequency	Notes
A92016	A9-1	1	A9-1-2	Collapse	1	bead
A92016	A9-4	4	A9-4-5	Ballast	1	unworked fragment

Table 14. Freshwater Shell from Non-tomb Contexts.

Operation	EU	Level	Lot	Lot Description	Frequency
A92016	A9-1	1	A9-1-1	Collapse	2
A92016	A9-2	1	A9-2-1	Collapse	3
A92016	A9-3	1	A9-3-3	Ballast	8
A92016	A9-4	1	A9-4-1	Collapse	3
A92016	A9-4	2	A9-4-2	Collapsed fill	1
A92016	A9-4	4	A9-4-5	Ballast	41
A92017	A9-5	5	A9-5-4	Fill below Floor 3	22
A92017	A9-6	6	A9-6-5	Fill below Floor 4	1
A92017	A9-6	7	A9-6-6	Fill below Floor 4	1
A92016	A9-Stela-base	1	A9-Stela-base-1	Humus and collapse	11
A92016	A9-Summit	3	A9-Summit-3	Fill	1
A92016	Gann's Hole	1	n/a	Backfill	1

Table 15. Faunal Remains from Non-tomb Contexts.

Operation	EU	Level	Lot	Lot Description	Notes
A92016	A9-2	1	A9-2-1	Humus and collapse	1 modified bone
A92016	A9-4	2	A9-4-3	Below lower construction steps	unworked bone
A92016	A9-4	4	A9-4-5	Ballast	unworked bone

Appendix B: A9 Tomb Ceramic Vessels

Table 16. Summary of A9 Tomb Ceramic Vessel Analysis.

Vessel No.	Group/Type	Form	Base Diam. (cm)	Rim Diam. (cm)	Height (cm)	Wall Thick. (cm)	Temper	Slip Color	Comparison/Notes
1	Saturday Creek Polychrome	dish	N/A	24.5	5	1	ash	red-and-black on-orange	ring base, painted decorations on interior, incised cross design on exterior
2	Palmar Group Polychrome or Bichrome	bowl	21	27	8.5	0.7	calcite	red-on-orange	–
3	Palmar Group, possible Zacatel Cream Polychrome	dish	12.5	17.5	5	0.5	ash/calcite	red-and-black-on-cream	–
4	Gallinero Fluted	vase	9.5	9.5	unknown	0.5	ash	red	–
5	Platon Punctated-incised	dish	N/A	28	5	1.1	ash	red	rounded base
6	Saturday Creek Polychrome	dish	8	20	5	0.8	ash	red-and-black on-orange	ring base
7	Platon Punctated-incised	dish	4.5	20.5	4	0.9	ash	red	annular base
8	Saturday Creek Polychrome	dish	6.5	22	4.5	0.8	ash	red-and-black on-orange	ring base, quadripartite design on interior base

Vessel No.	Group/Type	Form	Base Diam. (cm)	Rim Diam. (cm)	Height (cm)	Wall Thick. (cm)	Temper	Slip Color	Comparison/Notes
9	Saturday Creek Polychrome	dish	7	24	4.5	0.7	ash	red-and-black on-orange	modally Saturday Creek Polychrome suggesting that this type may have continued into the Spanish Lookout phase, ring base
10	Benque Viejo Polychrome System	bowl/dish	14	18.5	6	0.6	ash	red-and-black-on-cream	partial vessel present, no definitive evidence for polychrome
11	Palmar Group	bowl	12	15.5	5	0.5	ash/calcite	red-and-black on-orange	orange slip on interior, decorated red-and-black-on-orange with red rim on exterior
12	Chunhuitz Orange	bowl	14	18.5	6	1	ash/calcite	red-on-orange	three nubbin feet
13	Cayo Group	bowl	N/A	21	9.5	0.8	calcite	–	–
14	Palmar Group, Possibly Zacatel Cream	bowl	19.5	25	8.9	0.8	ash	red-and-black-on-cream	decorated at base with what appears to be a number 3 and a pseudoglyph
15	Tunich Red-on-orange	dish	N/A	28.5	6	1	calcite/ash	red-on-orange	8 *Ajaw* glyph on interior center, rounded base
16	Benque Viejo Polychrome System	dish	23	32	9.5	1	ash	red-and-black-on-cream	tau-shaped feet; although on cream, the form, temper, and paste are similar to Benque Viejo Polychrome
17	Platon Punctated-incised	dish	N/A	36	9.5	1.2	ash	red	annular base, tripod tau-shaped feet
18	Belize Red	bowl	N/A	20	8.5	0.7	ash	red	rounded base

Vessel No.	Group/Type	Form	Base Diam. (cm)	Rim Diam. (cm)	Height (cm)	Wall Thick. (cm)	Temper	Slip Color	Comparison/Notes
19	Belize Group, Possibly a polychrome or bichrome	bowl	15	22	6	0.8	ash	red-on-cream	cream slip with red on top and possible black rim
20	Belize Red	dish	N/A	21.5	4.5	0.8	ash	red	–
21	Platon Punctated-incised	bowl	N/A	32.5	10	0.8	ash	red	ring base, incised cross on center of exterior side
22	Saturday Creek Polychrome	incurving vase	N/A	15	17	0.7	ash	red-and-black on-orange	rounded base
22a	Palmar Group, likely Saturday Creek Polychrome	bowl	16	20	5.5	0.9	ash	red-and-black on-orange	indented annular base, band of black pseudoglyphs on exterior side, interior base decorated with red cormorant image
23	Belize Red	dish	5.5	25	5	0.9	ash	red	annular indented base
23a	Zacatel Cream Polychrome	bowl	15.5	21	6.5	0.9	calcite/ash	red-and-black on-orange	rounded base, *Ajaw* glyph on exterior side, interior is orange and has black band at rim, exterior has red bands at rim and base that encloses decorations
24	Platon Punctated-incised	dish	N/A	34	7	0.9	ash	red	tau-shaped feet, mostly complete, indented ring on base
25	Cayo Unslipped	jar	unknown	13	unknown	0.6	calcite	–	–
26	Belize Red	dish	N/A	27	6	1	ash	red	rounded base
27	Platon Punctated-incised	dish	7.5 annular, 29 total	35.5	9	1	ash	red	annular base, three tau-shaped feet

Vessel No.	Group/Type	Form	Base Diam. (cm)	Rim Diam. (cm)	Height (cm)	Wall Thick. (cm)	Temper	Slip Color	Comparison/Notes
28	Saturday Creek Polychrome	incurving vase	6.8	unknown	17.5	0.7	calcite/ash	red-and-black on-orange	ring base, partial vessel present
29	Gallinero Fluted	vase	8	8	17	0.5	ash	red	slight diagonal fluting, indented ring around upper exterior
30	Macal Orange-red	bowl	17.5	23	8	0.8	calcite	orange	three nubbin feet, alternatively Chunhuitz Orange which is Spanish Lookout; even though Gifford (1976) indicates no bowls are in this type, the paste and slip of this vessel fits best in Macal Orange-red
31	Silk Grass Fluted	vase	7.5	8.5	11	0.7	calcite	brown	–
32	Unknown	mini bowl	6	7	5	0.5	calcite	brown	possible imitation slateware
33	Platon Punctated-incised	dish	N/A	19	6.5	1	ash	red	only 25% vessel present, one tau-shaped foot present, likely a tripod similar to Vessel 24
34	Belize Red	vase	10	10	24.5	0.6	ash	red	–
35	Gallinero Fluted	vase	10	23.5	10	0.4	ash	red	–
36	Xunantunich Black-on-orange	bowl	6	9	7	0.9	ash/calcite	black-on-orange	90% of vessel present, two black bands on center exterior surface, one black band on rim, no definitive evidence for polychrome

A9 Tomb Ceramic Vessel Descriptions

Vessel 1

Form: dish
Temper: ash
Complex: Tiger Run
Ware: Pine Ridge Carbonate
Vessel Type: Saturday Creek Polychrome
Description: Vessel 1 (Figures 30 and 34) is a shallow dish with a diameter of 24.5 cm, a height of 5 cm, and wall thickness of 1 cm. The ring base is 11 cm in diameter and unslipped. The paste is buff and fully oxidized with calcite inclusions. The exterior is unslipped but contains a wash on the upper ¼ of the exterior wall below the rim. The interior surface decorations are poorly preserved; however, a red design on the center base appears to be similar to that on Vessel 9. A *Kan* cross is incised on the washed area of the exterior surface. This dish is classified as a Saturday Creek Polychrome based on its burnished red-and-black-on-orange slip interior and ash paste (Gifford 1976:199).

Vessel 2

Form: bowl
Temper: calcite
Complex: Spanish Lookout
Ware: Peten Gloss
Vessel Type: unknown (Palmar Group Polychrome)
Description: This bowl (Figure 37) has a base diameter of 21 cm, a rim diameter of 27 cm, a height of 8.5 cm, and a wall thickness of 0.7 cm. The ash paste is buff and fully oxidized with calcite inclusions. The interior surface appears to have an orange slip with a red band at the rim, and the exterior is decorated with red-and-black on cream. The base is unslipped. Based on the surface decorations and paste, Vessel 2 has been designated as part of the Palmar Group (see Gifford 1976:249), though the designation is somewhat uncertain due to the extremely worn surface elements.

Vessel 3

Form: outcurving dish
Temper: ash/calcite
Complex: Spanish Lookout
Ware: Peten Gloss
Vessel Type: Palmar Group, possible Zacatel Cream Polychrome
Description: This vessel (Figures 32 and 36) has a base diameter of 12.5 cm, a rim diameter of 17.5 cm, a height of 5 cm, and a wall thickness of 0.5 cm. The ash paste is buff, fully oxidized, and contains calcite inclusions. The surface decoration is highly eroded. The base is unslipped, and the exterior and interior are slipped with red-and-black on cream. Based on the surface decoration and paste, Vessel 3 is part of the Palmar Group and may be a Zacatel Cream Polychrome (see Gifford 1976:249-251).

Vessel 4

Form: vase
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Gallinero Fluted
Description: Vessel 4 has a base diameter of 9.5 cm, a rim diameter of 9.5 cm, and a wall thickness of 0.5 cm. The sherds from this vessel were highly worn and fragmented making it impossible to reconstruct the vessel entirely, so the height is unknown. The paste is a very fine ash, buff in color, and fully oxidized with no inclusions. The exterior surface contains a red slip, and there is no slip on the interior surface. The exterior has vertical fluting and is decorated with three incised rings, one 2 cm below the rim of the vessel, the second 0.5 cm below the first, and the third 0.9 cm above the vessel's base. The first two rings are placed above, and the third ring is placed below the fluting. Similar to Vessels 35, this vessel is a Gallinero Fluted based on its thin walls, vertical fluting, and shared paste characteristics with the Belize Red variety (see Gifford 1976:262).

Vessel 5

Form: outcurving dish
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Platon Punctated-incised
Description: This vessel (Figure 32) has a rim diameter of 28 cm, a height of 5 cm, and a wall thickness of 1.1 cm. The exterior is washed, and the vessel has a pronounced angular break on the interior and a rounded base. Vessel 5 is a Platon Punctated-incised dish (see Gifford 1976:257) based on its shared surface and paste characteristics with Belize Red dishes, including a buff, mostly oxidized ash paste and red-slipped exterior.

Vessel 6

Form: round dish
Temper: ash
Complex: Tiger Run
Ware: Pine Ridge Carbonate
Vessel Type: Saturday Creek Polychrome
Description: This vessel (Figure 30) has a ring base diameter of 8 cm, a rim diameter of 20 cm, a height of 5 cm, and a wall thickness of 0.8 cm. The interior surface is burnished and slipped red-and-black-on-orange. The dish exterior is washed on the upper third of the wall below the rim, and the remaining exterior surface is course and unslipped. The ash paste is buff, fully oxidized, and contains calcite inclusions. Based on the decorative elements and ash paste, this dish has been designated a Saturday Creek Polychrome (see Gifford 1976:199).

Vessel 7

Form: dish
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Platon Punctated-incised
Description: This dish (Figure 30) has an incised ring base of 4.5 cm, a rim diameter of 20.5 cm, a height of 4 cm, and a wall thickness of 0.9 cm. The dish has an incised interior break. The paste is fine ash, buff, and partially oxidized. The fine ash paste has no core but does contain carbon inclusions and some carbon staining throughout. The surface interior is burnished with a red slip that continues over rim. The exterior is course with a wash approximately two-thirds down from rim. The remaining exterior is unslipped. This vessel is a Platon Punctated-incised type (see Gifford 1976:257-264) with ash temper and red slip similar to Belize Red.

Vessel 8

Form: round dish
Temper: ash/calcite
Complex: Tiger Run
Ware: Pine Ridge Carbonate
Vessel Type: Saturday Creek Polychrome
Description: This dish (Figure 30) has an inset ring base of 6.5 cm, a rim diameter of 22 cm, a height of 4.5 cm, and a wall thickness of 0.8 cm. The ash paste is buff and mostly oxidized with calcite and a few carbon inclusions. The surface is slipped orange on the interior with red and black decorations that make up a quadripartite design. The exterior is unslipped. Based on the surface decorations and paste, this vessel has been designated a Saturday Creek Polychrome (see Gifford 1976:199).

Vessel 9

Form: round dish
Temper: ash
Complex: Tiger Run
Ware: Pine Ridge Carbonate
Vessel Type: Saturday Creek Polychrome
Description: This vessel (Figures 30 and 35) has an inset ring base 7 cm in diameter, a rim diameter of 24 cm, a height of 4.5 cm, and a wall thickness of 0.7 cm. The paste is ash, fully oxidized, buff in color, and has no inclusions. The surface has an orange slip on the interior with red and black decorations, and the exterior is course and unslipped. The interior wall has a pronounced break below which decorative elements are concentrated. Similar to Vessels 8, 6, and 1, this vessel has been designated a Saturday Creek Polychrome based on its surface decoration and make up. While this is modally a Saturday Creek Polychrome, the vessel's presence among vessels from the Spanish Lookout phase suggests that the Saturday Creek Polychrome type may have continued later into the Spanish Lookout phase.

Vessel 10

Form: flaring side bowl/dish
Temper: ash
Complex: undetermined
Ware: undetermined
Vessel Type: unknown (Benque Viejo Polychrome System)
Description: This vessel (Figure 37) has a base diameter of about 14 cm, a rim diameter of 18.5 cm, a height of 6 cm, and a wall thickness of 0.6 cm. The paste is ash, buff, and fully oxidized with a few calcite inclusions. The surface is heavily worn but appears to have an orange-slipped interior with a black ring on the rim and a red-and-black-on-cream exterior. The exterior base is unslipped. This vessel was designated as part of the Benque Viejo Polychrome System (see Gifford 1976:269-272) based on its decorative elements. Compositional elements of this vessel should be revisited to determine a specific type.

Vessel 11

Form: bowl
Temper: ash/calcite
Complex: Spanish Lookout
Ware: Peten Gloss
Vessel Type: undetermined Palmar Group
Description: The vessel (Figure 37) has a base diameter of 12 cm, a rim diameter of 15.5 cm, a height of 5 cm, and a wall thickness of 0.5 cm. The paste is fine ash, buff, and fully oxidized with calcite inclusions. This polychrome has an interior orange slip, and the exterior is decorated red-and-black-on-orange with a red band on the exterior rim. The vessel was designated as part of the Palmar Group (see Gifford 1976:249) though a specific type was not determined.

Vessel 12

Form: slightly outcurving bowl
Temper: ash/calcite
Complex: Spanish Lookout
Ware: Unspecified
Vessel Type: Chunhuitz Orange
Description: This vessel (Figure 37) has a base diameter of 14 cm, a rim diameter of 18.5 cm, a height of 6 cm, and a wall thickness of 1 cm. The paste is buff, fully oxidized, and has some calcite inclusions. The interior and exterior are slipped orange, and the base is washed. The vessel has three nubbin feet. Vessel 12 has been designated a Chunhuitz Orange (see Gifford 1976:267-269) based on its orange slip, mixed ash and calcite temper, and ash paste. An alternate consideration designates this vessel as a Macal Orange-red though Gifford (1976:214) describes no bowls of this type being found, and the temper of Vessel 12 is mixed ash and calcite rather than a hard calcite typical of Macal Orange-red.

Vessel 13

Form: bowl
Temper: calcite
Complex: Spanish Lookout
Ware: Uaxactun Unslipped
Vessel Type: undetermined, Cayo Group
Description: This vessel (Figure 37) has a rim diameter of 21 cm, a height of 9.5 cm, and a wall thickness of 0.8 cm. The paste has calcite temper, and in cross section, the interior of the vessel wall is dark gray while the outer 1 mm is red-brown. The surface has been only lightly smoothed and is generally grainy and course, speckled with calcite, and mottled orange/red and gray. The vessel has been designated as part of the Cayo Group based on its unslipped exterior and hard calcite temper. Vessel 13 matches the general Cayo Ceramic Group description (see Gifford 1976:276-279) in terms of paste and surface description but is not the typical jar form.

Vessel 14

Form: outcurving bowl
Temper: ash
Complex: Spanish Lookout
Ware: Peten Gloss
Vessel Type: Palmar Group, possible Zacatel Cream
Description: This vessel (Figures 37 and 40) has a base diameter of 19.5 cm, a rim diameter of 25 cm, a height of 8.9 cm, and a wall thickness of 0.8 cm. The paste includes many calcite inclusions, has a slightly ashy feel, and is buff in color with a 3-mm-thick light gray core. The interior is well-burnished with what appear to be the remains of an orange slip. The entire exterior surface (including the base) is burnished with a cream slip and red and black decorative elements. The base is decorated with what appears to be the numerical coefficient three and a red possible pseudoglyph. A red band runs along the top and bottom of the exterior wall, and red circles with black-filled interiors are spaced evenly along the medial exterior wall and interspersed with black linear decorations. Vessel 14 has been placed in the Palmar group and is possibly a Zacatel Cream Polychrome (see Gifford 1976:251) based on its decorative elements.

Vessel 15

Form: dish, outcurving walls
Temper: calcite/ash
Complex: Spanish Lookout
Ware: Peten Gloss
Vessel Type: Tunich Red-on-orange
Description: Vessel 15 (Figure 32) is a shallow dish with a rim diameter of 28.5 cm, a height of 6 cm, and a wall thickness of 1 cm. The paste is buff, fully oxidized, and has a large number of calcite inclusions. Although it has primarily calcite temper, the paste feels gritty like ash. This dish has the best-preserved surface decorations of all the A9 tomb vessels. The vessel exterior except for the rim is burnished and smoothed but unslipped. The vessel interior has an orange background with a red band at the lip and red line just below the lip. At the interior center, the vessel has a stylized *Ajaw* glyph and the number 8 written with a bar and three dots, representing the *k'atun* ending date AD 692. The vessel was identified as a Tunich Red-on-orange (see Gifford 1976:252) based on surface decorations and paste characteristics.

Vessel 16

Form: dish
Temper: ash
Complex: undetermined
Ware: undetermined
Vessel Type: unknown (Benque Viejo Polychrome System)
Description: This dish (Figure 33) has a base diameter of 23 cm, a rim diameter of 32 cm, a height of 9.5 cm, and a wall thickness of 1 cm. The vessel base includes a ring that is 9 cm in diameter but also has three tau-shaped feet with incised decorations on their exterior surfaces. Additionally, each foot has a hole through the interior surface of the foot creating a negative space. The dish has a small notched basal flange. The ash paste is buff and fully oxidized with calcite inclusions. There is a red band on the rim, and the interior and exterior surfaces are slipped and decorated with red and black elements; the base is unslipped. This red-and-black-on-cream polychrome has been placed in the Benque Viejo Polychrome System. Though this vessel is not a red-and-black-on-orange like most Benque Viejo Polychromes, the form, temper, and paste are similar to Benque Viejo Polychrome (see Gifford 1976:269-272).

Vessel 17

Form: dish
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Platon Punctated-incised
Description: This dish (Figure 38) has a rim diameter of 36 cm, a height of 9.5 cm, and a wall thickness of 1.2 cm. It also has an annular base that is 7.5 cm in diameter and three tau-shaped feet. The paste is ash, buff, fully oxidized, and has no inclusions. The surface is burnished with a red interior slip, and the base is medium course and unslipped. There is a *Kan* cross on the vessel's exterior. This vessel is a Platon Punctated-incised because it is similar in form and temper to that described by Gifford (1976:257-259).

Vessel 18

Form: incurving bowl
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Belize Red
Description: This incurving bowl (Figure 37) has a rounded base and a rim diameter of 20 cm, a height of 8.5 cm, and a wall thickness of 0.7 cm. The paste is ash, buff, and fully oxidized with no inclusions. The interior surface is burnished and slipped red; the exterior is medium-course and slipped red about one-third of the way below the vessel rim. The vessel matches the temper and surface description of the Belize Red type (see Gifford 1976:255-257).

Vessel 19

Form: flaring side bowl
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Belize Group
Description: Vessel 19 (Figure 37) has a base diameter of 15 cm, a rim height of 22 cm, a height of 6 cm, and a wall thickness of 0.8 cm. The paste is ash, buff, and fully oxidized with no inclusions. The surface is slipped on the interior and exterior, and the base is unslipped. It has a cream underslip with possible red decoration and a possible black rim. The vessel is heavily worn, and it is difficult to tell if it is a polychrome or bichrome. Thus, it has been placed in the Belize Group (Gifford 1976:255).

Vessel 20

Form: outcurving dish
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Belize Red
Description: This dish (Figure 32) has a rim diameter of 21.5 cm, a height of 4.5 cm, and a wall thickness of 0.8 cm. The paste is a fine ash, buff with a pinkish hue, and fully oxidized with few calcite inclusions. The interior surface of the dish is burnished with a red slip, and the exterior and base is course with a red wash. The dish also has a pronounced interior break. Vessel 20 most closely matches the temper and surface description of the Belize Red type (see Gifford 1976:255-257).

Vessel 21

Form: outcurving bowl
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Platon Punctated-incised
Description: Vessel 21 (Figure 41) has a rim diameter of 32.5 cm, a height of 10 cm, and a wall thickness of 0.8 cm. It has an inset ring base that is 7.5 cm in diameter. The paste is ash, buff, and fully oxidized with few calcite inclusions. The surface interior and exterior are burnished and slipped red and the base is unslipped, and there is an incised cross on the center exterior side. Based on form, temper, and paste, this vessel type is a Platon Punctated-incised (see Gifford 1976:257-259).

Vessel 22

Form: incurving vase
Temper: ash
Complex: Tiger Run
Ware: Pine Ridge Carbonate
Vessel Type: Saturday Creek Polychrome
Description: This incurving vase (Figure 45) with rounded base is similar to Vessel 28. It has a rim diameter of 15 cm, a height of 17 cm, and a wall thickness of 0.7 cm. At its widest point the vase diameter is 18 cm. The paste is ash and is buff in color on the first 3 mm of the exterior becoming a light orange toward the interior surface with a large number of calcite flecks. The surface is decorated with two red bands on the medial exterior and black bands and decorative elements on the upper exterior, all on an orange slip. The exterior base is unslipped, and the interior is slipped orange. The vessel has been designated a Saturday Creek Polychrome (see Gifford 1976:199).

Vessel 22a

Form: outcurving bowl with slight flare
Temper: ash
Complex: Tiger Run
Ware: Pine Ridge Carbonate
Vessel Type: Saturday Creek Polychrome
Description: Vessel 22a (Figure 37) has a base diameter of about 16 cm, a rim diameter of 20 cm, a height of 5.5 cm, and a wall thickness of 0.9 cm. The paste is ash, buff, and fully oxidized with calcite inclusions. The vessel has black pseudoglyphs on its exterior, and the interior base is decorated with the image of a red cormorant. The interior walls are decorated with large and small round black dots and red and black bands. A red band on the vessel rim extends to both the interior and exterior surfaces. This vessel is hard to distinguish from vessels in Palmar Group; however, based on its red-and-black on orange decorative elements Vessel 22a has been typed as a Saturday Creek Polychrome (see Gifford 1976:199).

Vessel 23

Form: outcurving dish
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Belize Red
Description: This vessel (Figure 32) has a rim diameter of 25 cm, a height of 5 cm, and a wall thickness of 0.9 cm. The base has an annular indent that is 5.5 cm in diameter. Similar to Vessel 5, Vessel 23 has a pronounced interior break. The paste is a fine ash, buff, and fully oxidized with no inclusions. The surface interior is burnished and slipped, and the exterior is slightly course and washed. The base below the basal curve is unwashed. Based on the vessel's red slip and ash paste and temper, this vessel type is Belize Red (see Gifford 1976:255-257).

Vessel 23a

Form: bowl
Temper: ash/calcite
Complex: Spanish Lookout
Ware: Peten Gloss
Vessel Type: Zacatel Cream Polychrome
Description: This vessel (Figure 37) has a rounded base with a diameter of approximately 15.5 cm, a rim diameter of 21 cm, a height of 6.5 cm, and a wall thickness of 0.9 cm. The paste is ash, light orange, and fully oxidized with calcite inclusions. Vessel 23a has a 5 *Ajaw* glyph on its exterior side, corresponding to AD 721. The interior is slipped orange and has a black band at the rim. The exterior has red bands at the rim and base that enclose decorative elements. This red-and-black-on-orange vessel has been designated a Zacatel Cream Polychrome (see Gifford 1976:249-251).

Vessel 24

Form: outcurving dish
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Platon Punctated-incised
Description: This vessel has a rim diameter of 34 cm, a height of 7 cm, and a wall thickness of 0.9 cm. It has an inset ring base with a diameter of 5.5 cm and three rectangular slab feet. The very fine ash paste is buff in color and fully oxidized with no inclusions. The surface interior is burnished with a red slip and the exterior is course and unslipped. The vessel is also decorated with an excised band approximately 3 cm below the exterior rim. Vessel 24 is similar in form to Vessel 33, except 33 has tau-shaped feet. Based on the excised decoration, slip, and ash temper and paste, this vessel type is a Platon Punctated-incised (see Gifford 1976:257-259).

Vessel 25

Form: flanged jar
Temper: calcite
Complex: Spanish Lookout
Ware: Uaxactun Unslipped
Vessel Type: Cayo Unslipped
Description: Vessel 25 (Figure 42) has a rim diameter of 13 cm, a neck diameter of 9 cm, and a wall thickness of 0.6 cm. Due to the extremely fragmented condition of the body portion of this jar, the height and base measurements are unknown. In the sherd cross-section, the interior is gray and about 0.4 cm thick. The paste on either side of the core is light brown. The vessel has large calcite inclusions and course unslipped interior and exterior surfaces. Based on its form, temper, and surface, the jar was designated Cayo Unslipped (see Gifford 1976:276-282).

Vessel 26

Form: outcurving dish
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Belize Red
Description: This vessel (Figure 32) has a rim diameter of 27 cm, a height of 6 cm, and a wall thickness of 1 cm. The vessel has a rounded base and a pronounced interior break. The paste is buff, with some carbon flecks. The surface is burnished with a red slip on the interior, and the exterior is course with a wash that covers about one-third of the surface below the rim. The remaining exterior is unslipped. Based on the red slip and ash temper and paste, this vessel is a Belize Red type (see Gifford 1976:255-257).

Vessel 27

Form: dish
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Platon Punctated-incised
Description: Vessel 27 (Figure 30) has a rim diameter of 35.5 cm, a height of 9 cm, and a wall thickness of 1 cm. It has an inset, annular base that is 7.5 cm in diameter and three tau-shaped feet. The paste is a fine ash and is fully oxidized with no inclusions. The interior and exterior surfaces are burnished with a red slip, and the entire base is course and unslipped. The exterior inset panel contains a single incised graffito. Though this vessel has no patterned incisions or punctations, based on the vessel's shape, form, and red slip, the vessel has been typed as a Platon Punctated-incised (see Gifford 1976:257-259).

Vessel 28

Form: incurving vase
Temper: calcite/ash
Complex: Tiger Run
Ware: Pine Ridge Carbonate
Vessel Type: Saturday Creek Polychrome
Description: Vessel 28 (Figure 42) has a ring base diameter of 6.8 cm, a height of 17.5 cm, and a wall thickness of 0.7 cm. Due to the extremely fragmented state of this vessel, it could not be completely reconstructed, and the rim diameter is unknown. The paste is a fine ash, light brown, and fully oxidized with many calcite inclusions. Portions of the vessel interior have an orange wash, and the exterior is burnished and slipped orange with red and black decorations. This vessel appears similar in form and decorative elements to Vessel 22 and has been designated a Saturday Creek Polychrome (see Gifford 1976:199).

Vessel 29

Form: vase
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Gallinero Fluted
Description: This vase (Figure 42) has a base diameter of 8 cm, a rim diameter of 8 cm, a height of 17 cm, and a wall thickness of 0.5 cm. The vase has an excised ring 2.1 cm below the rim and 1.7 cm from the vessel's base. The paste is ash, buff, and fully oxidized with calcite inclusions. Slight diagonal fluting is barely visible on the exterior surface, which is slipped red. The upper 10% of the interior surface is also slipped red, and the base is unslipped. Based on the form, temper, paste, and presence of diagonal fluting, this vessel is a Gallinero Fluted (see Gifford 1976:262).

Vessel 30

Form: slightly flaring bowl
Temper: calcite
Complex: Tiger Run
Ware: Unspecified
Vessel Type: Macal Orange-red
Description: This vessel (Figure 39) has a base diameter of 17.5 cm, a rim diameter of 23 cm, a height of 8 cm, and a wall thickness of 0.8 cm. The bowl has three nubbin feet that are 0.8 cm tall and 1 cm in diameter. The paste is ash, buff, and fully oxidized with no inclusions. The surface is slipped orange on both the interior and exterior, and the base appears to have remnants of a slip or a wash. Even though Gifford (1976:214) indicates that there are no bowls of this type, the paste and slip of this vessel fit best in the Macal Orange-red type.

Vessel 31

Form: vase
Temper: calcite
Complex: Tiger Run
Ware: Unspecified
Vessel Type: Silkgrass Fluted
Description: This vessel (Figure 42) has a base diameter of 7.5 cm, a rim diameter of 8.5 cm, a height of 11 cm, and a wall thickness of 0.7 cm. The paste is gray-brown, and the surface appears to be orange-fired below the slip. The paste is ashy and oxidized throughout with no visible inclusions. The surface is brown slipped on both the interior and exterior, and there are two raised rings around the exterior just below the rim. The form, slip, and paste of this vessel are most like the Silkgrass Fluted vessel type (see Gifford 1976:211-212).

Vessel 32

Form: miniature bowl
Temper: calcite
Complex: undetermined
Ware: undetermined
Vessel Type: undetermined
Description: Vessel 32 (Figure 42) has a base diameter of 6 cm, a rim diameter of 7 cm, a height of 5 cm, and a wall thickness of 0.5 cm. This small bowl or cup has a fine ash paste that is buff in color. The whole vessel was found intact, and the core of the vessel is not visible. The surface has a few red flecks on the surface that may be indicative of a red slip. The interior and exterior walls are burnished, and the interior base is course and unburnished. Due to the lack of visible decorative elements and the unusual small size of the vessel, no complex, ware, or type were determined for this vessel.

Vessel 33

Form: dish
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Platon Punctated-incised
Description: This dish (Figure 31) has a rim diameter of 19 cm, a height of 6.5 cm, and a wall thickness of 1 cm. Only one-third of the vessel is present, and the recovered fragment has one of what were likely three tau-shaped feet and is similar in shape to Vessel 24. The paste is a fine ash, buff to light orange, and fully oxidized with no inclusions. The surface interior is burnished with a red slip that is highly eroded. The exterior slip is also highly eroded and appears to have only covered the upper one-third of the vessel. Based on the slip color, form, paste, and temper this vessel has been designated a Platon Punctated-incised (see Gifford 1976:257-259).

Vessel 34

Form: vase
Temper: ash
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Belize Red
Description: This vessel (Figure 44) has a base diameter of 10 cm, a rim diameter of 10 cm, a height of 24.5 cm, and a wall thickness of 0.6 cm. The paste is light a very fine ash, extremely gritty, light orange, and fully oxidized with calcite inclusions. The surface is only lightly burnished on the exterior, and the vessel has a red slip on the exterior and the uppermost 10% of the interior. There is no notable excising on this vessel, and the surface is extremely worn. Based on the slip color, temper, and paste, this vessel is a Belize Red type (see Gifford 1976:255-257).

Vessel 35

Form: vase
Temper: ash/calcite
Complex: Spanish Lookout
Ware: British Honduras Volcanic Ash
Vessel Type: Gallinero Fluted
Description: This vase (Figures 42 and 43) has a base diameter of 10 cm, a rim diameter of 10 cm, a height of 23.5 cm, and a wall thickness of 0.4 cm. The paste is fine ash, buff, and fully oxidized with no inclusions. The surface exterior is slipped, and the interior is slipped only on the uppermost 10% of the vessel. The base of the vessel is unslipped. There are two incised rings (one 2.8 cm below the rim and a second 0.5 cm below the first). The flutes are vertical, and the surface of the vessel is worn. This vessel is similar to Vessel 4 and is a Gallinero Fluted vase (see Gifford 1976:262).

Vessel 36

Form: flaring side bowl
Temper: ash
Complex: undetermined
Ware: undetermined
Vessel Type: Xunantunich Black-on-orange
Description: Vessel 36 (Figure 37) has a base diameter of 6 cm, a rim diameter of 9 cm, a height of 7 cm, and a wall thickness of 0.9 cm. The paste is ash, buff, and fully oxidized with calcite inclusions. The surface is burnished and slipped orange on both the interior and exterior, and the base is unslipped and smooth. There are two black bands on the medial surface of the exterior and one black band on the rim. This vessel is similar in shape and decoration to Xunantunich Black-on-orange types (Gifford 1976:268-269).

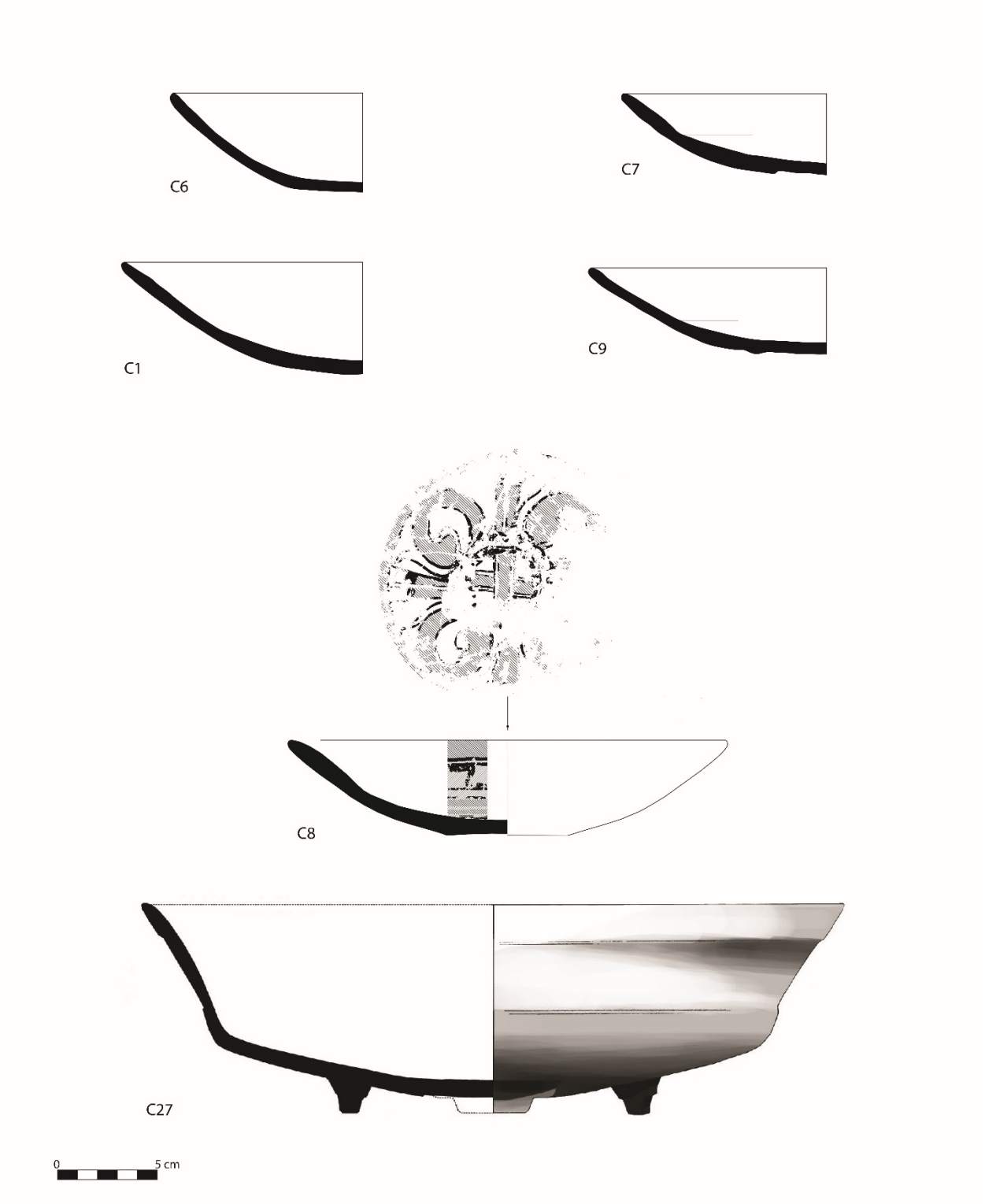

Figure 30. Select dishes from the A9 tomb. C6, C1, C7, and C9 by Annabelle Rodriguez and Diane Slocum. C8 by Christophe Helmke. C27 by Annabelle Rodriguez, final by Kyle Shaw-Müller.

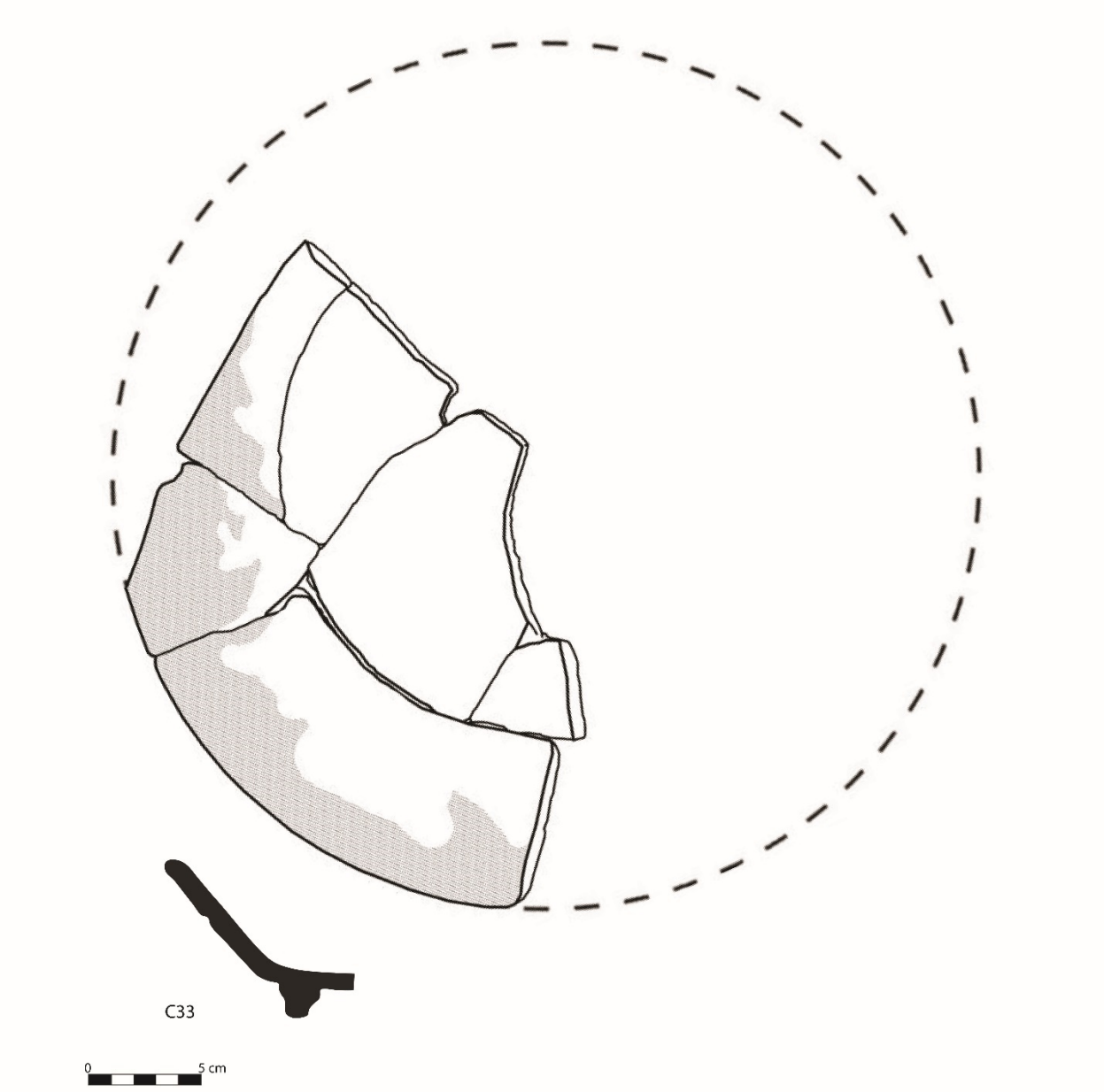

Figure 31. Dish C33 from the A9 tomb. Planview by Kyle Shaw-Müller. Profile by Brooks DeGennaro and Diane Slocum.

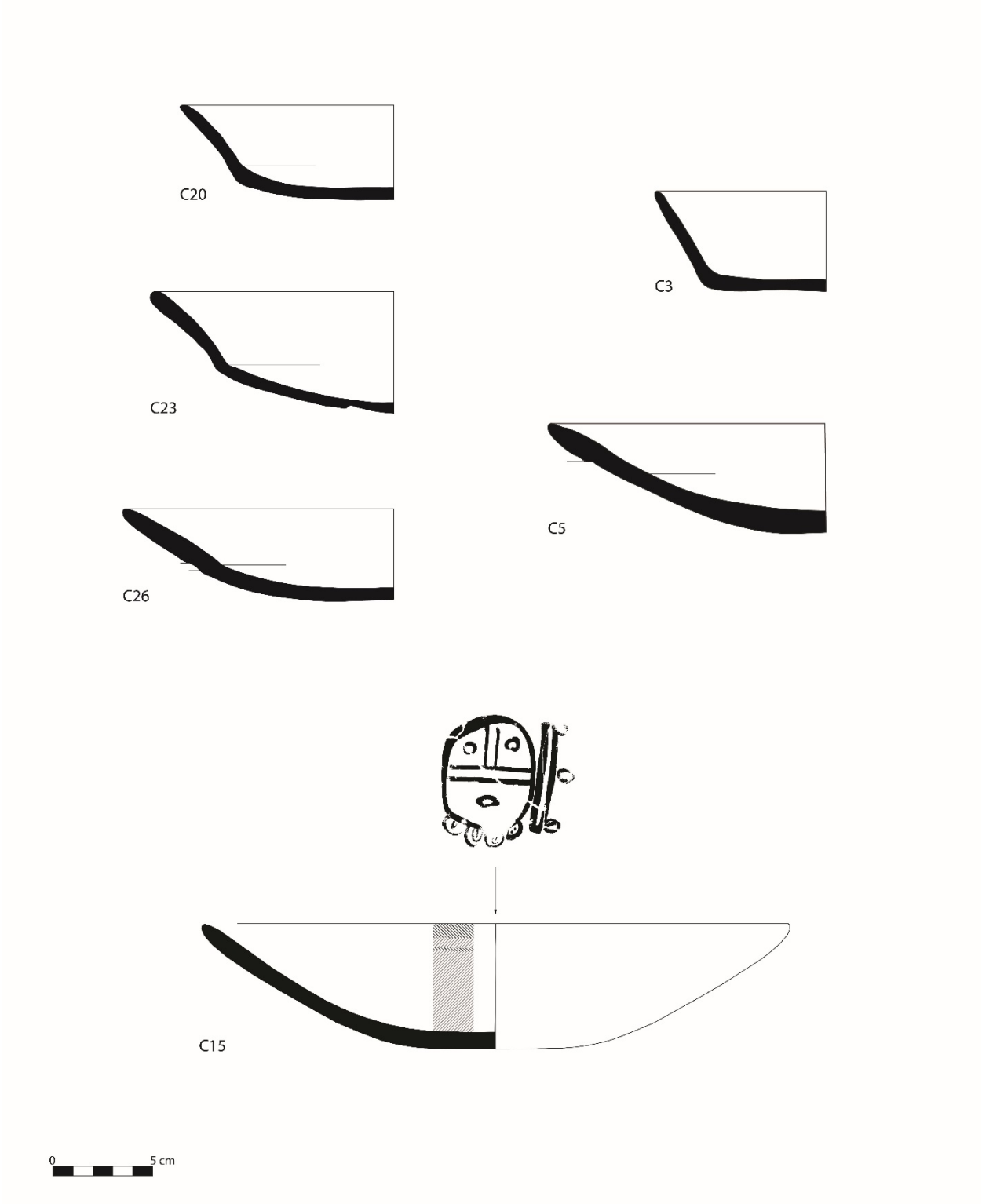

Figure 32. Select outcurving dishes from the A9 tomb. C20, C23, C26, C3, and C5 by Annabelle Rodriguez and Diane Slocum. C15 by Christophe Helmke.

Figure 33. Dish C16 from the A9 tomb. Sideview above and detail of foot below.

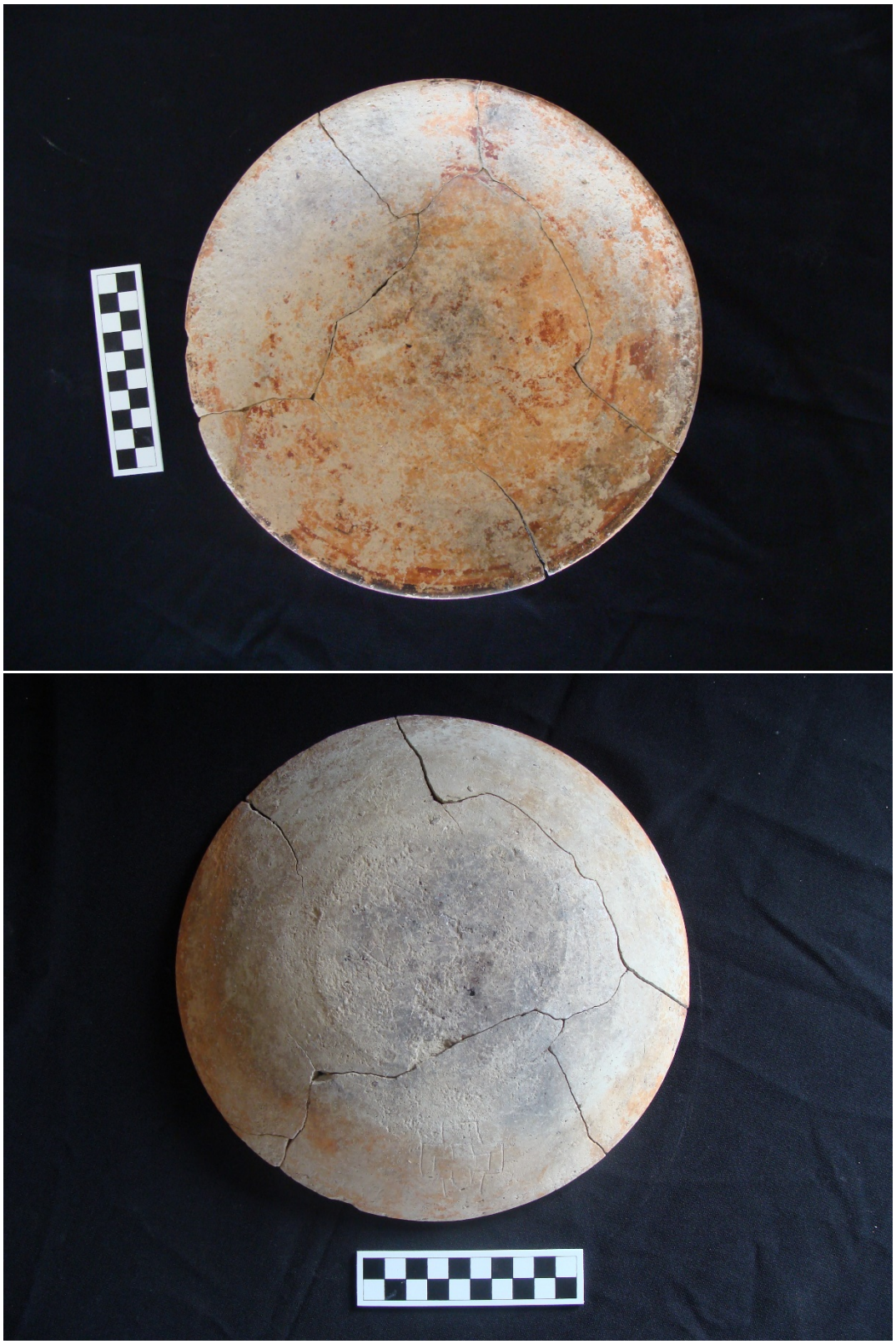

Figure 34. Dish C1 from the A9 tomb. Interior above and exterior below. Note incised *Kan* cross on the exterior.

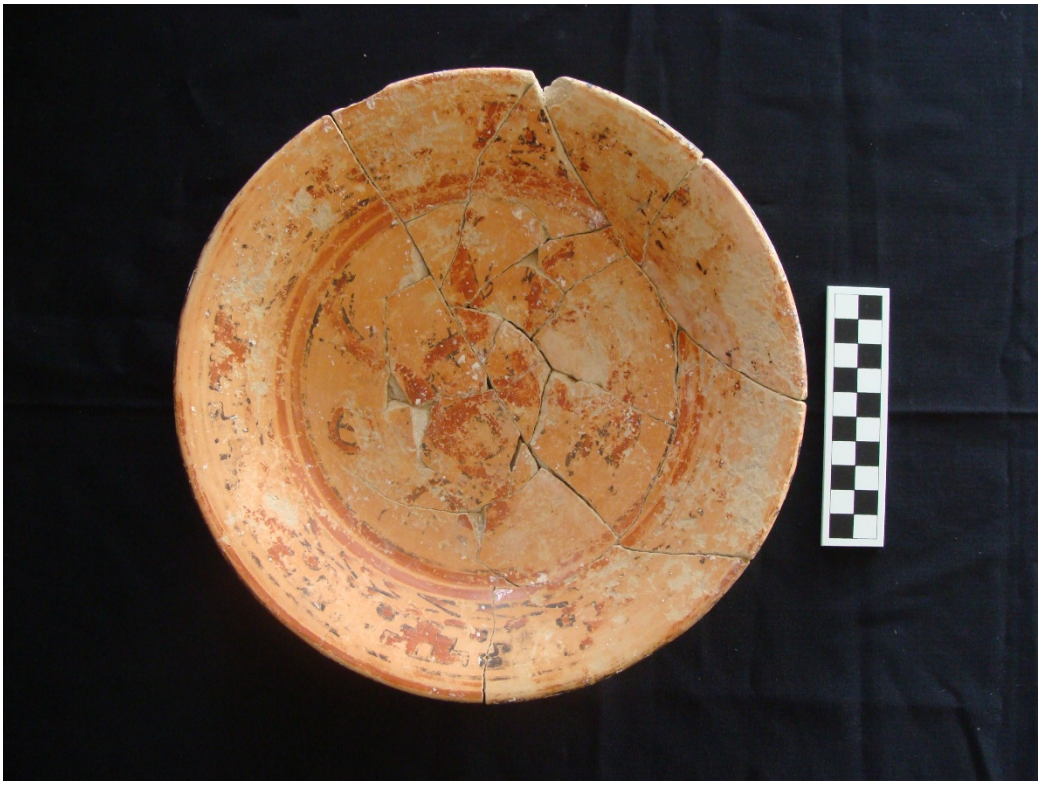

Figure 35. Dish C9 from the A9 tomb.

Figure 36. Dish C3 from the A9 tomb.

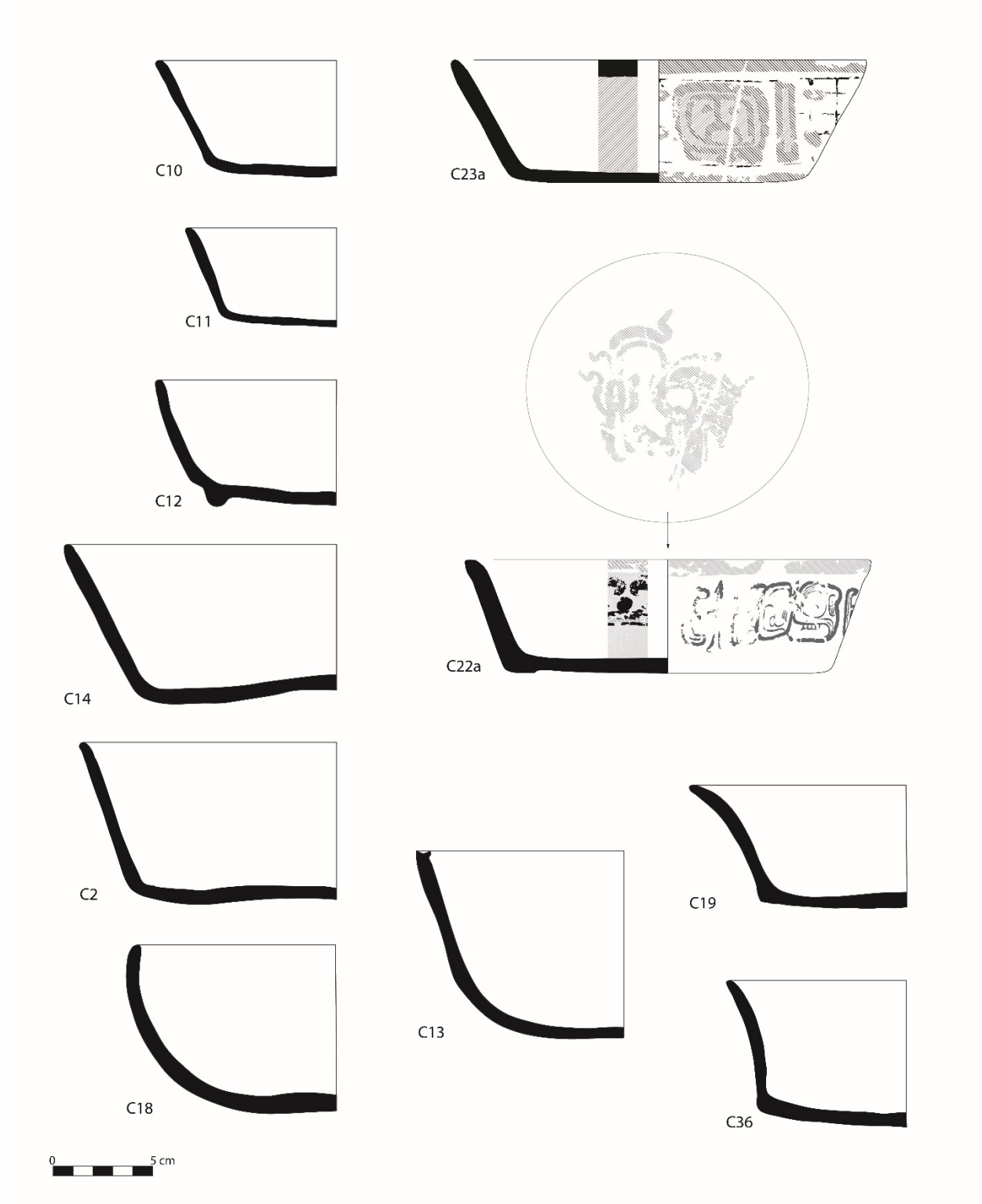

Figure 37. Select outcurving bowls from the A9 tomb. C10, C11, C12, C14, C2, C18, C13, C19, and C36 by Annabelle Rodriguez and Diane Slocum. C23a and C22a by Christophe Helmke.

Figure 38. Dish C17 from the A9 tomb showing incised *Kan* cross. This dish is the same form as C27.

Figure 39. Bowl C30 from the A9 tomb.

Figure 40. Bowl C14 from the A9 tomb. The base has a possible pseudoglyph.

Figure 41. Bowl C21 from the A9 tomb. Note incised *Kan* cross on exterior.

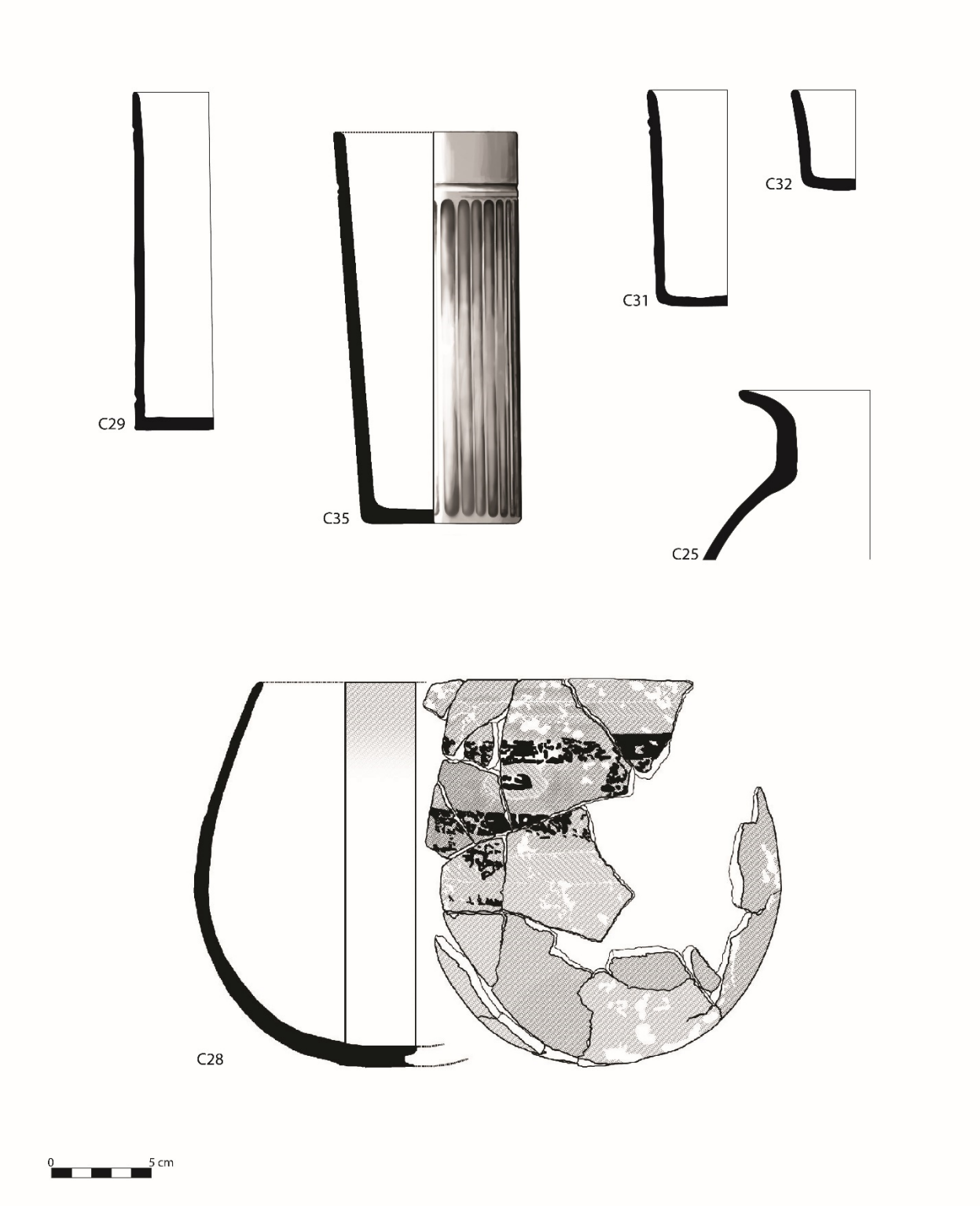

Figure 42. Select vases and jar from the A9 tomb. C29, C31, C32, and C25 by Annabelle Rodriguez and Diane Slocum. C35 and C28 by Brooks DeGennaro, final by Kyle Shaw-Müller.

Figure 43. Vase C35 from the A9 tomb.

Figure 44. Vase C34 from the A9 tomb.

Figure 45. Incurving vase C22 from the A9 tomb.