

“HOUSED WITHIN”

**A museum display critique and investigation of a Classic Maya household at
K’axob**

By

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Abstract

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Throughout the history and formation of museums, exhibition design has been problematic for both curators and visitors alike. Increased incidences of looting in past centuries has inhibited exhibition potential and forced curators to display archaeological objects with minimal contextual information. Some curators rely on the objects’ aesthetic values to convey information, while other curators compensate with a bombardment of text. The interwoven nature of looting and museum practice has developed into ubiquitous themes of visitor alienation and confusion within the exhibit space. The solution to this current dilemma is a movement towards installations that find a balance between these two extremes, so that visitors are directly involved in the display in order to foster learning.

As the final step in the archaeological process, data presentation is fundamental. This thesis seeks to complete the archaeological process of the 1995 excavations at K’axob, specifically at Structure 54, a residential complex in the northern part of the site. After reanalyzing and reinterpreting mortuary data from Structure 54, data patterns reveal burial standardization during the Classic period and burials serving as land legitimization and dedicatory caches. Out of this critical analysis arises an exhibition of the mortuary data from Structure 54 based on John Falk’s museum visitor experience theory. This thesis describes that process and how the “Housed Within” exhibit dealt with issues of looting, conventional museum practice, and visitor involvement.

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Each and every one of us wants to feel special, whether it's because of our curiosity, our concern for our loved ones, our interesting hobbies or interests, our ability to discriminate the beautiful from the ugly, or just that we saw something important that only those who visit this place get to see. (Falk 2009: 237)

To the visitor: this thesis is for you.

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Chapter 1

Introduction

Think about the last time you ventured into a museum. What was your initial impression? Did the museum fully immerse you in the exhibits? Did you feel as if you were involved in the display or looking in from the outside? How much do you think you *really* learned about the exhibit? If you answered any of the previous questions with hesitation, you are not alone. Most museum exhibits have a tendency to fall short of their main obligation: to engage and to educate the museum visitor. Ever since the modern beginnings of museums as small private collection galleries in Renaissance Europe called “curiosity cabinets,” museum operators and directors have struggled to develop a method of display that transports visitors into the exhibit (Falk 2009; Falk and Dierking 2000).

Although most contemporary museums have turned their focus to finding solutions for this historically rooted dilemma, there continues to be room for improvement. As an avid museum attendee, I am extremely familiar with common museum practices. In my experience, and as noted by other scholars in the museum field, museums gravitate towards unintentional visitor alienation (Falk and Dierking 2000). This results from a number of factors, ranging from providing visitors with little to no information about objects to presenting one interpretation of material as the sole truth, or even bombarding the visitor with dry lengthy texts. Additionally, each type of museum tradition has distinct ways of alienating the visitor. Art museums, for example, tend to display a vast array of objects and artwork with a bare minimum of information, such as the title of the artwork, the artist, the date, and the medium. If an art display of archaeological objects does give other information, it is usually a short description of the

cultural material on display, leaving the visitor to determine the artist's intentions, the historical period of the artwork, and why certain techniques in the artwork were chosen over others. On the opposite side of the spectrum are museums that overwhelm the visitor with voluminous texts and very few objects. History and archaeology museums lean towards this approach, burdening the visitor with copious quantities of reading (Schlereth 2004).

Visitor Studies from the Past to the Present

So how have scholars addressed these predicaments pertaining to visitor involvement? Prior to the nineteenth century, museums took the form of small displays in the homes of private collectors. These Wunderkammern, or “cabinets of curiosity”, were displays of fascination spurred by an age of exploration, comprised of collected foreign objects and wild specimens. In these settings, exhibits were designed to impress visitors and to allow them to explore realms previously unknown (Yanni 1999). During the seventeenth century, the concept of a museum was incorporated into the public sector, starting with the Ashmolean Museum in Oxford, England (Alexander and Alexander 2008: 5). As the museum developed into a public institution with the ambition of educating a wider audience, visitor studies emerged. However, it was not until the 1900s that visitor studies were formalized and accessible in published format (Hein 1998: 42).

Visitor studies in the early 1900s focused mainly on reporting visitor experience in the form of statistics and observations. Scholars noted a need for expanding the field of museum studies in general, but no significant advancement transpired until the 1960s (Hein 1998: 43-52). In this era, interest in visitor studies grew exponentially, with an

increased focus on relating these studies to emerging social science theories. These studies focused on improving education within the museum context, an element largely ignored in the early 1900s. Despite this being a major breakthrough in the field, the principal benefactors of these studies were upper-class whites, who constituted the bulk of museum attendees. At the turn of the 21st century, visitor studies urged museums to involve all classes of the public domain, calling for exhibits geared towards minorities and underrepresented peoples. This new museological theory also placed emphasis on presenting museum objects as “contextual rather than inherent,” guiding the visitor with labels and texts instead of disorienting them through a bombardment of abstruse objects (Macdonald 2006: 2). Methods of implementing new museological theory have encountered both success and failure, leading us to contemporary visitor studies. Today, studies focus more on locating a balance between letting objects speak for themselves and allowing displays to speak for objects (Falk 2009; Falk and Dierking 2000). Few museums, apart from those scientific in nature, have tried to tackle this equilibrium, which exploits hands-on activities, asks questions of the visitor, and issues a wealth of resources and information for the ultimate purpose of educating the museum-goer.

Other Museological Issues

Another major obstacle for museum displays that remains oblivious to visitors is illicit acquisition of objects and artifacts. A majority of the objects displayed in museums come from private collectors and donors. More often than not, these private collectors procure their objects through illegal looting or black-market transactions. Museums largely operate on these donations as well as governmental funding, creating difficulties

when presenting the objects themselves (Ford 1984). If a museum only receives these types of items, fabricating displays becomes an arduous task. Most curators are hesitant to display these “hot” items for fear of criticism and legal investigation.

The primary reason for this hesitation is that looted artifacts lack context, or spatial and temporal information recovered during an archaeological excavation. Black-market items and artworks also have a similar dilemma. These auctioned items have been passed from collector to collector continuously over the years and, in the process, have lost their informative attributes (Renfrew 2006). Without context, it is impracticable to display items to educate the public. When looted items are displayed, the visitor receives only visually obvious information. Due to the presentation of looted artifacts in museums, visitors often are forced to make their own interpretations about the past or rely on perceptions from outside sources like the media. This reliance often escorts visitors down a path of misinterpretation and confusion.

Take, for example, the typical view of archaeology. The field of archaeology has come to exist as something fantastical and adventurous, primarily catalyzed by the film industry. The first thing that comes to mind when thinking about archaeology is an image of Indiana Jones discovering tombs of splendor and chasing communist villains through the barren desert. Another common image is Rick O’Connell uncovering Egyptian tombs filled with cursed ancient mummies seeking retaliation. In reality, archaeology is so much more than what the media presents. Although archaeology is fascinating, it is still a scientific process; rarely does it include revitalized mummies and mystical quests for the Holy Grail. Archaeology is a scientific extrapolation of the past through controlled collection of information. From the data collected via excavation, an archaeologist can

piece together the past and provide the public with historical information. The media convey archaeology as something less systematic, and traditionally, museums have done hardly anything to eradicate this view and elucidate the true methodical nature of archaeological practice.

Furthermore, the media have influenced our notions of indigenous groups, especially our view of Maya peoples. Ever since European expansion, indigenous peoples have been equated with terms like “primitive” and “savage”. The media leave viewers with impressions of wild ancient people living in the jungle, who partake in barbaric sacrifices and warfare. Recently, the media have exploited the supposed 2012 apocalypse. Instead of an auspicious time of change and reflection that the Maya associate with the changing of the *bak'tun* in 2012, television shows and easily accessible unscholarly articles suggest that Maya people depicted this date as the end of the world. Other television shows even go so far as to imply that ancient Maya people had contact with aliens. Although museums have made small efforts to rectify these representations, they reach only a minimal audience, still leaving the masses ignorant and uninformed.

Personifying the Past

So how should a curator approach issues of visitor alienation, looting, and false portrayals of archaeology and the peoples of the past? For this thesis, I have chosen to confront these concerns and construct a display that challenges conventional practices in museum theory regarding visitor experience. The display, titled “Housed Within: a Museum Display Critique and Investigation of a Classic Maya Household at K'axob,” will unveil an abundant amount of archaeological knowledge about burial practices at the

ancient Maya site, K'axob, in northern Belize. The exhibit will explicitly deal with material from the burials of Structure 54, a household in the northern sector of the site with eight construction phases dating from the Late Formative to the Terminal Classic period (circa 300 BCE to 900 CE). Designated by the name "Operation 14" during the excavation season, Structure 54 provides a considerable amount of diachronic information concerning burial practices at K'axob.

Although some analysis has been conducted on the burials at Operation 14, there is still a lot to understand (Piscitelli 2007). Thus, this thesis entails two parts. The first is to examine the burials at Operation 14 and offer insights about burial rituals at the excavation site. The second part applies these insights to a museum context by creating a display about the burials at Operation 14. The display will critique traditional museum practice by speaking to the issues of visitor estrangement, looting, and popular erroneous views of archaeology and pre-Columbian Maya peoples. Simultaneously, the exhibit will present archaeology as a scientific process and one full of curiosity, research, and interpretation.

The fundamental goal of the exhibit aligns with a museum's primary purpose: to educate the visitor. Education in a museum setting can only occur if the visitor is thoroughly immersed in the subject matter of the display and allowed to explore the material. Through this exhibit, I hope to educate museum visitors about the methodical nature of archaeology and its importance as a way to preserve the past. But I do not wish to do this in a didactic way that presents only my interpretation of Operation 14. I want to provide museum visitors with a wealth of information so that they may make their own conclusions about burial practices at K'axob, which they will then compare with my

findings near the end of the display. One of the most profitable ways to learn about archaeology is to play the role of archaeologist, and what better way to do that than through an interactive and stimulating exhibition.

Taking all of this into account, I will address several questions during the course of my research. Since my thesis is divided into two converging parts, I have separated my research questions into two parts as well. The first set of research questions will address the burials at Operation 14 and includes the following:

- What is the relation between construction phases and the interment of individuals at Operation 14?
- Are there any changes in burial practices or types (i.e. simple, crypt, rock-lined) from the Late Formative and Early Classic to the Late and Terminal Classic at Operation 14?
- Why did residents inter their dead in the manner in which they did? Did these burials serve more than one function?

The second set of research questions concentrates on how to improve contemporary museum practice and addresses quandaries surrounding visitor involvement by asking the following:

- What are the current problems with archaeological museum practice concerning the museum visitor experience?
- How does looting play a part in these current problems and how can looting be addressed?

- How can archaeology museums better incorporate the visitor into the exhibit, allowing the museum to accomplish its fundamental goal of educating the public?

In the ensuing chapters, I attempt to answer these questions in detail through an examination of material from Operation 14 and research into comparative archaeological contexts. Chapter two, entitled “K’axob and Operation 14,” provides context for the site of K’axob, including its location, occupation length, and the background for understanding construction phases and burial practices. This chapter synthesizes the 1990 to 1998 excavation work completed under Dr. Patricia McAnany (University of North Carolina at Chapel Hill), and explains how K’axob relates to the broader realm of Maya archaeology. Chapter three presents my interpretation of the burials at Operation 14, and also documents my analysis of the excavation data and how I arrived at my conclusions.

The fourth chapter delves into the second portion of this thesis and provides a detailed analysis of visitor studies from the initiation of curiosity cabinets to modern-day archaeological institutions. Particularly, I compare these studies and offer suggestions on how to better improve them for the future, using John Falk’s theory of museum visitor experience as a framework for my argument. The next chapter, entitled “Vitalizing Museum Visitor Experience Theory,” describes the methods that I used to design the exhibit, and why I chose certain characteristics over others to critique modern museum practice and theory. Additionally, I discuss the challenges that I faced when constructing this type of display and how these influenced my decisions about arrangement, design, and presentation. Finally, reflections of my findings and discussion on the actual exhibit occur in the final chapter (Chapter 6). In this chapter, I conclude with a frank discussion

of my research's shortcomings and discuss how certain improvements could increase the effectiveness of the display. I reflect on information and aspects I wish I had included or changed, relating this to typical plights faced by curators when constructing exhibitions. Museum practice is a crucial definitive part of the archaeological process, and, through actively involving the museum visitor, is one of the most beneficial means of relaying information about the past to the community.

Chapter 2

K'axob and Operation 14

Situated in the northeast part of the small Caribbean country of Belize, the site of K'axob is bounded by the New River to the east and the southern sector of Pulltrouser Swamp to the west (see Figure 2.1). A rich and diverse tropical ecosystem surrounds K'axob and provides a substantial quantity of agricultural and wildlife resources. Ancient inhabitants at the site consumed an abundant amount of proteinaceous resources such as shellfish and turtles, and also utilized plants such as hardwood trees and palm leaves for structural purposes (McAnany 2004b: 11). The landscape of K'axob provided its inhabitants with a bountiful amount of water that could sustain the settlement through pronounced dry seasons, and the nearby New River facilitated transportation via canoe. Altogether, these resources allowed for long-term habitation in this northern region of Belize, and partly accounted for the site's lengthy occupation.

The archaeological site itself contains two main plazas and a number of residential compounds that are in close proximity to island fields that were constructed from the nearby wetlands (see Figure 2.2). One of the earliest known structures of K'axob is an apsidal (oval-shaped) domicile dating to approximately 600 B.C. During excavations, two individuals were found interred in the earliest construction phase of this domicile, and are considered to be among the “founding ancestors” of the site (McAnany 2004d: 415-16). Particularly notable in this burial was an adult male associated with 2,109 shell beads and two ceramic vessels. The female that accompanies him, however, is buried without any ritual items. This evidence suggests that the earliest occupants of K'axob maintained status distinctions—at least in death. The stark contrast between the

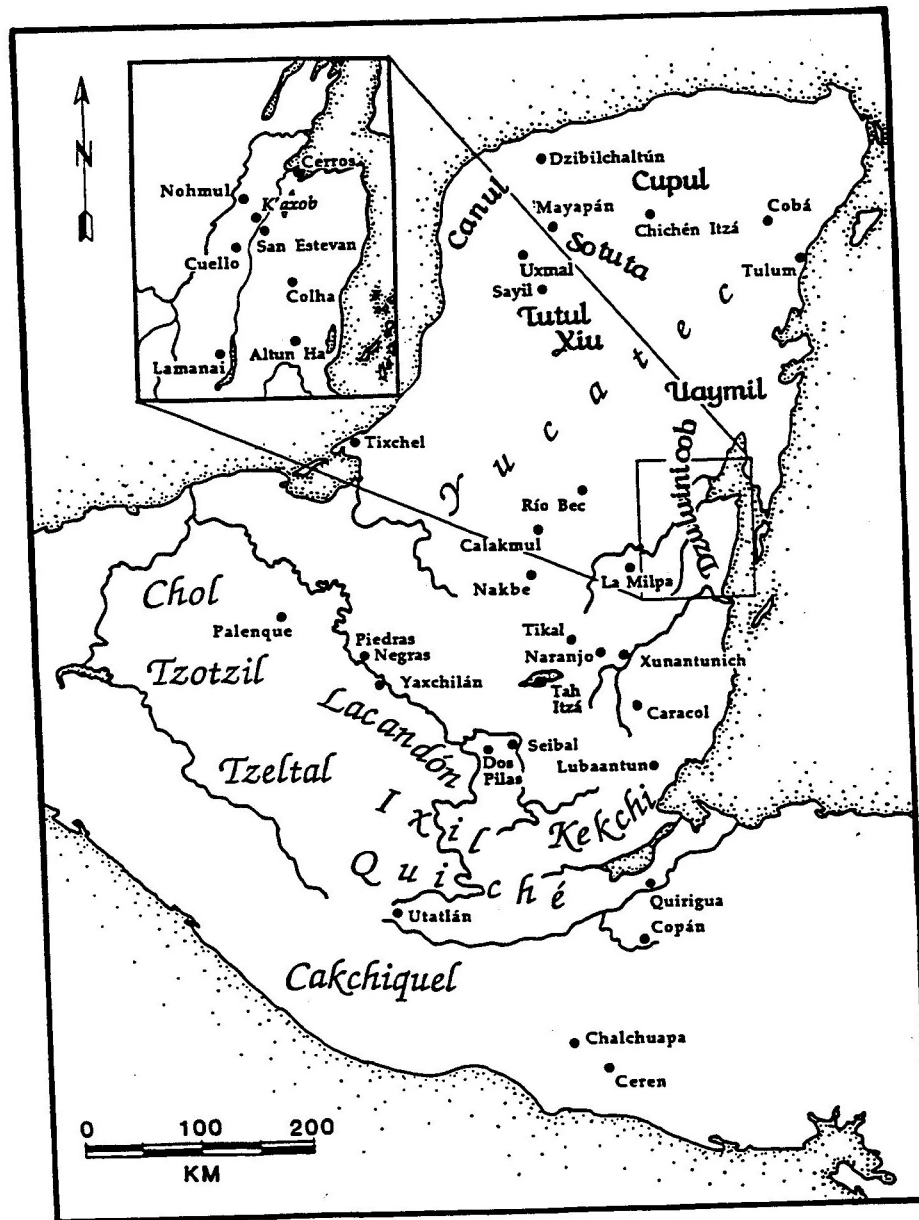


Figure 2.1. Location of K'axob within the Maya region and the New River valley (Adapted from *K'axob Project: Interim Report of the 1995 Field Season*, 1995, Figure 1.1).

“founding” male and female burials does not indicate an egalitarian society. This evidence correlates with future burials at K’axob, which also exemplify a differentiation in burial practices from individual to individual, especially with regards to shell beads and other funerary goods (Isaza Aizpurúa and McAnany 1999). Although there is a sense of social differentiation at K’axob, the absence of palatial structures indicate that hierarchy was most likely structured through kinship and not through a royal elite.

Regional Relationships in the New River Valley

Even though the inhabitants of K’axob practiced intra-site status distinctions, they also fit into a larger regional political system. Additional settlements in the geographical area included San Estevan, Nohmul, Cuello, Kokeal, Pech Titon, Tibaat, Chi Ak’al, and Yo Tumben (McAnany 2004b: 12). These sites interacted with one another in an effort to acquire various inaccessible resources, especially after the appearance of monumental construction. A New River valley site hierarchy existed during the Late Formative period (c. 300/400 B.C. – A.D. 250); Lamanai, located at the top of the New River, features a colossal Late Formative pyramid. Large-scale pyramidal architecture was initiated later at K’axob, commencing in the early onset of the Classic period (McAnany 2004a: 6). This monumental construction places K’axob later in development and possibly lower in placement on a hypothetical inter-site hierarchical scale. As mentioned above, large-scale construction in the New River valley began during the Late Formative period at larger sites in prime geographical locations, such as Lamanai and nearby Nohmul. Situated near the New River Lagoon, Lamanai was in a position to oversee and monitor river transportation. At Nohmul, massive platform construction required a large labor force,

probably consisting of inhabitants across the New River valley. Likely, K'axob residents were incorporated into that labor force, whether of their own volition or through coercion (2004a: 6). Given their ability to amass a large labor force through administrative power early on in the region's development, Nohmul existed in the upper echelon of a site hierarchy, alongside the dominant site of Lamanai.

Two other large settlements to consider in the hierarchy are Cuello and San Estevan. The two sites are located along the New River, between Nohmul to the north and Lamanai to the south. Both of these sites possessed a certain degree of power and influence in the region, especially in trade dynamics, although they were not as expansive as Nohmul or Lamanai. In the schematic framework of the region's site hierarchy, it would thus seem that Nohmul and Lamanai occupy the uppermost tier, Cuello and San Estevan fall in the middle, and smaller villages like K'axob reside in the lowest level (McAnany 2004a: 12).

Although it appears that this hierarchy is fairly pronounced when considering site size and development, it is difficult to delineate political relationships archaeologically. The observations above are used to formulate an apparent hierarchy system, but truthfully, it is an arduous task to discern how these hierarchies originated and asserted their power, or even how they functioned. If there was a hierarchy in place, one would expect to see regional similarities in artifact assemblages due to a site's influence and dominance over other sites. For example, the appearance of Colha chert tools, from a site about 30 kilometers south of K'axob, can be found throughout northern Belize (Bartlett and McAnany 2000: 107). However, this is not the case for vessel shapes and styles in the New River valley. Ceramic pottery styles are instead very individualized from village

to village. At sites like K'axob and Cuello, there are localized stylistic ceramic variations, such as the painted cross motif and vessels with incurving walls respectively (Bartlett and McAnany 2000: 108-112). Although these different styles could be interpreted as an example of an increasing need for community identity in the face of political dominance by other sites, they also could have resulted from differing aesthetic preferences (Bartlett and McAnany 2000: 118). Thus, the strength of hierarchy in the New River valley and which sites fell into which spheres of influence remain uncertain.

Why is K'axob important?

For decades, the main focus of research in the field of Maya archaeology was centered on large ceremonial centers like Tikal and Calakmul. Archaeologists delved into massive sites that had large monumental construction and hieroglyphic texts. Sites like these had greater populations, more archaeological artifacts, and expanded over larger areas. So why would a site as small as K'axob be valuable in the study of Maya archaeology?

To truly learn and understand ancient Maya people and their lifestyle, it is vital to excavate households and to study small villages like K'axob. The site of K'axob was occupied continuously for almost two thousand years, and consisted of more than 100 structures (McAnany and López Varela 1999). K'axob residents began to expand the village around 200 B.C., and built two focal pyramid complexes, Plaza A and B. By excavating households at K'axob, one acquires a sense of how sites in the Maya region developed and grew into larger, more powerful entities. Household archaeology

facilitates a comprehension of the power dynamics of the New River valley through artifact finds and the various sites' historical developments.

Localized communities, such as K'axob, have become an increasing focus in studies of Maya archaeology. Specifically, inquiries center on emerging research that deals with household archaeology. The realm of household archaeology allows archaeologists to evaluate domestic archaeological finds as a way to piece together not only a site's past, but also the past lifeways of ancient peoples. It gives researchers a clue about gender inequalities, mortuary rituals, household organization, the lives of non-elite populations, craft production, power balance within the household, and domestic consumption.

Small villages like K'axob also play an important role in aiding interpretations of rural complexity. Originally, sites were thought to fall into an urban to rural dichotomy. "Purely urban" sites include those with large populations, monumental construction (ballcourts, causeways, stelae, altars, etc.), and large regional networks. "Purely rural" sites are those outside of the urban sector that lack grandeur and influential power. However, this dichotomy is erroneous because "purely urban" and "purely rural" sites only make up a small portion of actual sites (Iannone and Connell 2003). In fact, ballcourts, stelae, and causeways are present at a number of minor centers that are lumped into the rural category, creating a gray area between rural and urban settlement. Sites that have elements of both urban and rural societies are complex middle-level settlements that fall into the progressive continuum of a site's development into a large ceremonial center (Iannone 2004: 278). The study of sites such as these increases knowledge of rural complexity, which not only includes sites that are not quite rural, but

also those that have not, and perhaps never will, develop into massive urban centers.

Rural complexity thus gives archaeologists a laboratory through which they can explore ancient Maya political, social, and economic organization (Iannone and Connell 2003: 6).

K'axob exemplifies one of these gray-area settlements. Although it does not have prominent urban architecture like ballcourts or stelae, the residents of K'axob constructed large pyramid-plaza complexes and initiated a wetland modification project. These complexes are only secondary to larger regional centers in the New River valley such as San Estevan and Nohmul (McAnany et al. 2003: 79). K'axob was thus emerging as a more urban settlement, if we think of larger sites in the valley as more akin to "purely urban" sites. Thus, excavating K'axob would allow us to understand how the site fits in with the larger regional structure of the New River valley, and how sites like Nohmul or San Estevan developed in a similar trajectory.

Furthermore, studying K'axob provides a regional perspective regarding the flow of commodities and resources between sites. Small sites help to explore economic relationships among regional sites, and help to understand how K'axob inhabitants situated themselves in relation to other political powers. Artifacts potentially convey clues about either resistance to dominant powers or adoption of certain cultural styles.

Although residents of K'axob probably had sufficient access to aquatic resources from the surrounding wetlands to be self-sufficient, other necessary resources had to be acquired from other locations in the New River valley. Residents developed networks to acquire these goods, especially for chert used in stone-tool production, only available at Colha. Although K'axob residents partook in regional interaction, they also focused on local resource acquisition and use. Given the riverine and wetland environment,

limestone was not readily available near K'axob for construction. Instead, inhabitants of K'axob built floors and footing walls from soft marl. During the site's long occupational history, residents of K'axob recycled the local raw materials they exploited. For example, pieces of broken ceramic vessels were fashioned into fish-net sinkers, and exhausted metates were reused as hearthstone supports (McAnany 2004d: 417). As previously stated, inhabitants also created a community identity through stylistic elements on ceramic vessels. Despite interacting with other sites in the region, inhabitants of K'axob developed their own sense of community. We would never be able to acquiesce this knowledge if we did not study small sites like K'axob. Excavation and research at small villages like K'axob allow archaeologists to simultaneously analyze the operations of an ancient Maya site both on a small intra-site scale and macroscopic regional scale.

Background of Operation 14

In the northern portion of K'axob, Operation 14 was one of seven excavation units opened during the 1995 Boston University Field School, under the direction of Dr. Patricia McAnany. Operation 14 includes Structure 54, a domicile located on a basal platform mound complex. The mound itself is located 200 meters east of Pulltrouser Swamp and is surrounded by a number of single platforms, including Structure 89, the location of excavation unit Operation 15, located 50 meters to the south (see Figure 2.2). Structure 54 was excavated under the direction of John Schulz. The unit measured 4 by 4 meters and was subdivided into 2 by 2 meter squares.

Operation 14 yielded evidence of eight different construction phases, each capped by a plaster floor (packed marl). Inhabitants of Structure 54 initiated numerous house

reconstructions, including a rotation of the house to a new direction. Due to well-preserved stratigraphy and an abundance of construction phases, the excavation of Structure 54 yields evidence of incremental development in the building's importance in relation to the surrounding area (Schulz 1997: 42). Structure 54 was possibly one of the earliest structures built in the northern part of K'axob, and was inhabited by an important family within the village.

Eleven burials come from Structure 54, which give insight into ritual practices at K'axob. Of the burials excavated, eight were adults or sub-adults. All of the burials contained some type of special or distinctive burial accouterments, including the presence of "kill-hole" vessels, crypt design, or even body position (Schulz 1997). Furthermore, burials were interrelated with household construction, since a new plaster floor construction often occurred after the death of an individual.

As the epitome of household archaeology, the excavation unit Operation 14 provides a microscopic view of ritual practices and ideologies of inhabitants at K'axob. Additionally, the artifacts from Structure 54 give an indication of residents' views of themselves within a larger regional structure. Pottery vessels and small recycled artifacts bestow further evidence for these views previously discussed in this chapter. Operation 14 is unique in that its remains were so well preserved. Burial vessels, bones, and goods remained in pristine condition since thick plaster floors protected them from damage. Although regional implications are crucial and significant to an understanding of K'axob, my research focuses on the interrelation between house construction and burials at Operation 14, and their similarities to those in other excavated units at K'axob and the immediate region.

A Guide to the Ceramic Chronology of K'axob

To better facilitate future discussion, it is necessary to outline the ceramic typology used for vessels found at K'axob. During the field seasons from 1990 to 1998, Sandra L. López Varela and Patricia McAnany were the primary investigators to analyze the ceramics. The two investigators conducted a typological study that utilized a naming convention combining different complex names with the first syllable of the site name, “K'ax”. All ceramic complexes identified thus ended with the syllable *k'ax*, which means “milpa fallow” in Yucatec Maya (McAnany 2004b: 13).

The various complexes include Chaakk'ax, K'atabche'kax, Nohalk'ax, Witsk'ax, and Kimilk'ax. Chaakk'ax refers to the type of red-colored pottery (*chaak* means “red” in Yucatec) that dates to the Middle Formative period. During the Late Formative, inhabitants started to implement localized artistic conventions, such as the aforementioned cross motif. Vessels that contain this cross symbol fall under the K'atabche'k'ax complex. The prefix *k'atabche'* stands for “cross”. The next sequential complex is Nohalk'ax, which represents the northward expansion of the site during Early Classic times, since *nohal* translates to “large”. The Late Classic complex is Witsk'ax (*wits* meaning “hill”), which commemorates the final phase of Structure 1, the site's tallest building. Finally, Kimilk'ax consists of Postclassic dated pottery vessels because it marks the final stage of life at K'axob (*kimil* or “death”). Each of these ceramic complexes was further subdivided into early, late, and terminal facets (McAnany 2004b: 13-15). Table 2.1 illustrates the coinciding ceramic complexes. Solid lines refer to a sound chronological division on the basis of AMS radiocarbon dating, whereas dashed lines are not as definitive.

To fabricate the ceramic typology for K'axob, López Varela studied ceramic collections in Belmopan, Belize and also in Mérida, Yucatán at the Centro Regional of INAH. López Varela grouped together ceramics based on sets of typological characteristics found in Maya typology literature, and also in her examination of materials at the Peabody Museum at Harvard University (López Varela 1996). She examined each sherd individually, as long as there was evidence of surface treatment.

History of Excavations and Research at K'axob

To conclude the background information about K'axob, a history of research at K'axob will facilitate an understanding of methodology and previous interests and goals. It will thus aid in formulating the ensuing discussions of Operation 14 and mortuary rituals. The first archaeological research at K'axob commenced in 1981, and consisted of extensive surveying and mapping. The initial team conducted preliminary excavations to definitively determine the existence of an ancient community in this tropical area. These first archaeological investigations were conducted by Drs. Peter D. Harrison and B.L. Turner II, and uncovered a substantial amount of Mamom and Bladen deposits, dating to the early part of the Middle Formative period (McAnany 1997). This indicated an ancient Maya occupation in the region during the Formative, possibly to exploit resources located adjacent to the Pulltrouser Swamp. This went completely against previous notions of K'axob settlement as a later period habitation strategy.

It was not until 1990 that field excavations occurred under principal investigator, Patricia McAnany, a graduate student during the 1981 investigation. This intensive

Table 2.1. Ceramic chronology and contemporaneous periods at K'axob.

Time	Major Periods	K'axob
1200	Late	
1100		<i>K'imilk'ax</i>
1000	Early	
900	Postclassic	
800		Late Facet
	Terminal	
700		<i>Witsk'ax</i>
600	Late	Early Facet
500		Late Facet
400		<i>Nohalk'ax</i>
300	Early Classic	Early Facet
200		Terminal Facet
100		
A.D.		<i>K'atabche'k'ax</i>
B.C.	Protoclassic	
100		Late Facet
200		
300		Early Facet
400	Late Formative	
500		
600		Late Facet
700		<i>Chaakk'ax</i>
800	Middle	Early Facet
900	Formative	
1000		
1100	Early	
1200	Formative	

excavation work carried into 1992 and 1993, and involved two groups of field school students from Boston University under the financial backing of a National Science Foundation Grant (BNS-9112310). The primary goal of the investigation was to analyze how the occupants of K'axob treated the deceased members of their community, a

research design that later inspired McAnany's publication on ancestor veneration, *Living with the Ancestors: Kinship and Kingship in Ancient Maya Society* (1995). In her work, McAnany hypothesizes that ancestor veneration was a significant organizing force in all sectors of lowland Maya society, from commoners to nobles (1995: 7). Ancestor veneration was a means of legitimizing resource rights through the continued physical presence of interred ancestors in domestic settings (McAnany 1995: 8). Using evidence from K'axob and diachronic funerary practices from both the Maya region and other cultures, she details her observations and synthesizes the relationship between ancestor veneration, lineage organization, and kinship legitimization in the Maya lowlands.

The results from the 1990 to 1993 fieldwork were published in a volume entitled *K'axob: Ritual, Work, and Family in an Ancient Maya Village* (2004), edited by Dr. McAnany. In addition to offering an extensive amount of information regarding the excavated material, the book is also an attempt to reconstruct life at K'axob. Innovatively, the volume includes a CD-ROM that contains original data tables, a myriad of photographs, an actual tour of the site, and three-dimensional reconstructions of the site's stratigraphy. Parenthetically, this edited volume and accompanying disc provide information and images that I found useful for designing a museum exhibit.

Fieldwork commenced again in 1995 to excavate the northern households at K'axob. During the 1995 season, the wetland canals were particularly dry, so investigators were able to create the first field map of the wetlands. Although no 1995 compilation has yet been published, a report entitled *K'axob Project: interim report of the 1995 field season* (1997) provided key excavation descriptions useful for this thesis. Also, most of the artifacts from the excavations—pottery, shell, and fauna—have been

analyzed and were valuable for this thesis (López Varela 1997; Isaza Aizpurúa and McAnany 1999; Sheehan 2002).

Several articles and chapters have been published on ceramic and bioarchaeological material from previous field seasons at K'axob (López Varela et al. 2001; McAnany and López Varela 1999; McAnany et al. 1999; Storey and McAnany 2006; Storey 2004). A considerable amount of research has been conducted on ideas of community identity and the presence of material remains in burials, such as shell ornamentation (Isaza Aizpurúa and McAnany 1999). There have also been studies on ritual offering in the K'axob wetlands (McAnany et al. 2003). McAnany (1998) also published a critical review of how ancestors were built into royal as well as commoner landscapes and how this establishes a sort of structural identity at several different scales. Collectively, the excavation data and published research for K'axob provide a structural framework in which to analyze the burials at Operation 14 and to generate an exhibit that immerses visitors into the historical and theoretical background of the archaeological investigation at K'axob.

Chapter 3

Mortuary Rituals at Operation 14: Analysis and Interpretation

Prior to publications with artistic site reconstructions, data retrieved from an excavation undergo a large degree of transformation. How do archaeological data convert from emergent knowledge tucked away in the confines of layered soils to publications filled with extensive tables and theoretical interpretations? The answer lies within the copious amounts of research and analysis that occur after fieldwork. Archaeologists are all too familiar with this step in the process, since it accounts for nearly 90 percent of archaeological practice.

This chapter falls within that capacious category of research and analysis. To commence my discussion of mortuary information from Operation 14 and the K'axob site at large, I describe excavations at Operation 14, relating the excavated strata to one another and the burials at Structure 54. After establishing this foundation, I discuss burial practices from other excavations of K'axob and other southern lowland sites, such as Cuello and Tikal. These mortuary data strengthen the burial patterns observed at Structure 54, as well as support my thesis that interments at K'axob serve to legitimize land claims while simultaneously acting as dedicatory caches for new construction phases. The final section of this chapter presents three possible interpretations of the relationship between burials and construction phases at Operation 14. From these three analytical viewpoints, I explain why the interpretation that I favor is best aligned with the mortuary data and how it caters to theoretical perspectives within Maya archaeology.

Operation 14: Stratigraphy and Construction Phases at Structure 54

Operation 14 was excavated during the 1995 field season as one of seven units investigated for information regarding the northward expansion of K'axob during the Classic period (A.D. 250-900). Structure 54, in which Operation 14 is located, is a platform built atop a larger basal platform in this northern portion of the site (see Figure 2.2). The operation is located about 200 meters southeast of Pulltrouser Swamp. As mentioned in the previous chapter, Structure 54 is surrounded by numerous single platforms, such as the proximal Structure 89 (Operation 15) located 50 meters to the south.

The first construction that appeared at Structure 54 occurs during the Late K'atabche'k'ax facet, or the Late Formative period. Inhabitants, most likely an elite family unit, moving into northern K'axob prepared a foundation for a basal platform by scraping away the natural soil horizon (see Figure 3.1, Construction Phase I). This family inhabited the area for an extended period of time, and in the process, generated a midden comprised of refuse from continued domestic activities. This midden (Zone 44) functioned as the fill for the basal platform foundation, and could have been re-deposited. Over the course of the family's initial habitation, this midden becomes 60 to 70 cm thick, and accumulated a wide array of artifacts encompassing worked shell, lithic tools, ceramic fish net sinkers, obsidian, animal bone, ceramic sherds, and ceramic beads. Adjacent to this midden lies evidence for this family's extended occupation, including a partial plaster floor (Zone 63) and a rock-lined posthole (Zone 61).

After this initial occupation, construction intensified as exterior and interior spaces became more defined during Construction Phase II (see Figure 3.2). It is during

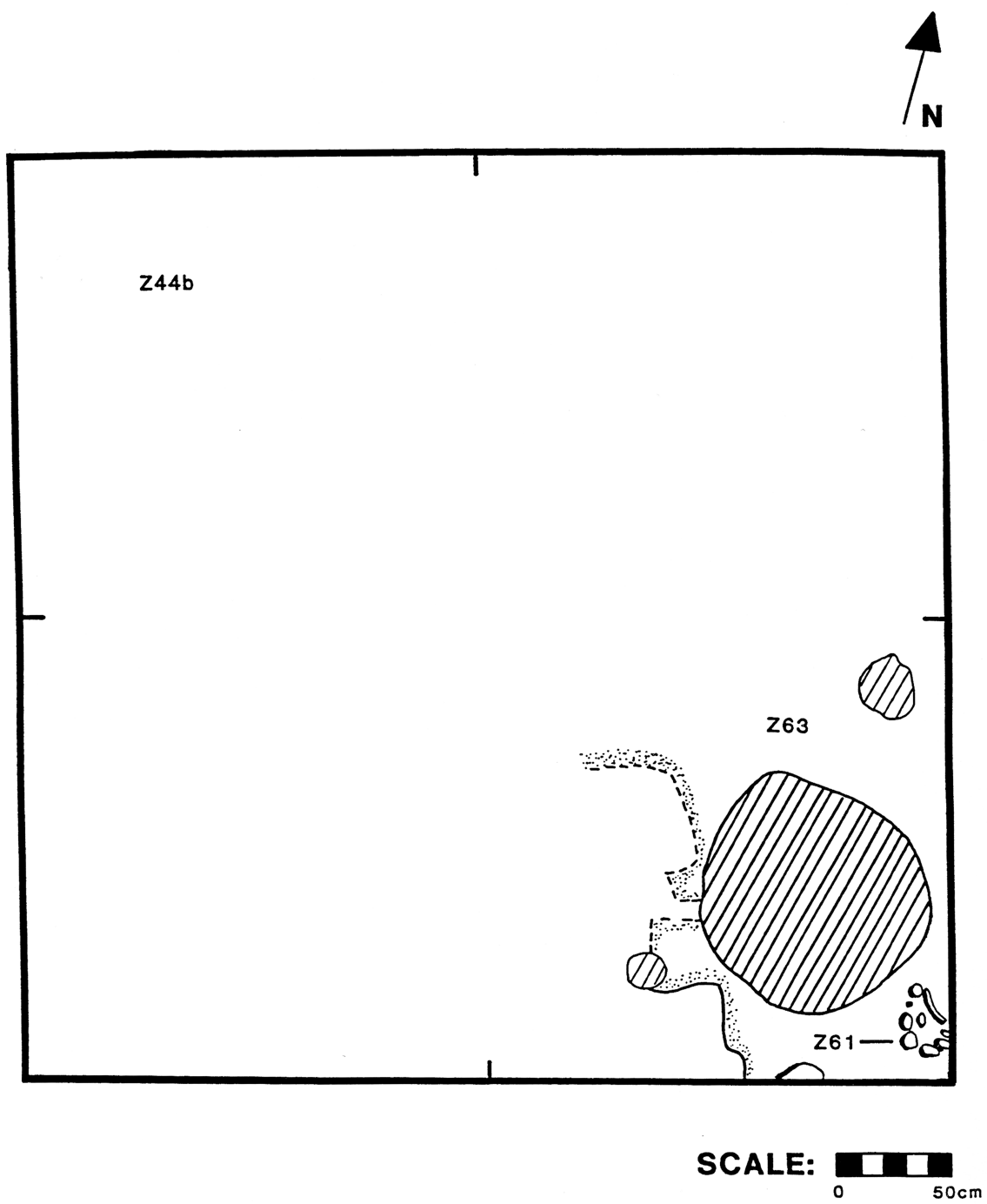
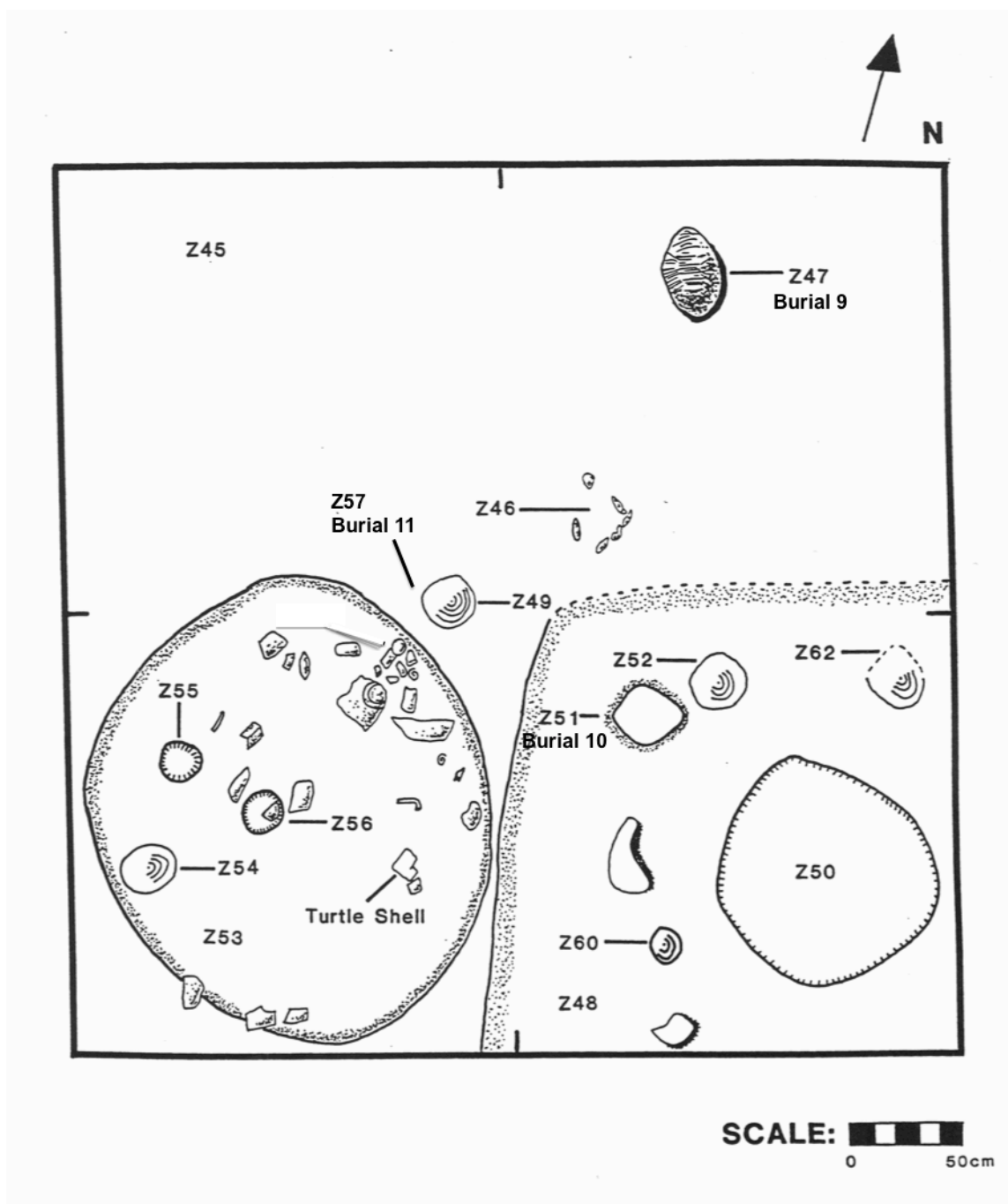


Figure 3.1. Operation 14, Construction Phase I.



this construction phase that we see the first formalized occupation with the addition of a sascab and plaster floor (Zone 48) and three different postholes (Zones 52, 60, and 62). During this occupational period, a young child aged four to five years was interred (Zone 51, Burial 10; Figure 3.2). The child was placed in a cross-legged position and seated inside a pit, measuring 34 cm wide (east/west) by 33 cm long (north/south). The burial was capped with several limestone rocks and did not include grave goods. Due to the positioning of the child near a posthole (Zone 52), there may be a correlational relationship between the burial and the construction activities that preceded the child's death.

Another area (Zone 45) in these early occupation surfaces in Structure 54 contained two comparable child burials (Zone 47, Burial 9 and Zone 57, Burial 11; Figure 3.2). The seated child of Burial 11 wore a necklace of 16 shell beads placed around his/her neck, which could indicate the family's high social status (Ivaza A. and McAnany 1999). Burial 11 was interred in close proximity to a posthole, similar to Burial 10. This strengthens an early cultural relationship between construction phases and burials. Burial 9, on the other hand, is not located near a structural element. The child of Burial 9 was seated in a flexed position underneath a large sherd from a striated cooking jar. This vessel resembles the shape of a tortoise carapace and was placed over the child along with several *Pomacea* shell fragments on an un-plastered surface.

Construction Phase II also included a small kitchen area (Zone 53) in the interior living space. Inhabitants discarded food-related waste and charcoal (Zone 55), and also constructed a hearth (Zone 46) near the encircled kitchen area so that inhabitants could have easily transported food products from the preparation area to the cooking fire.

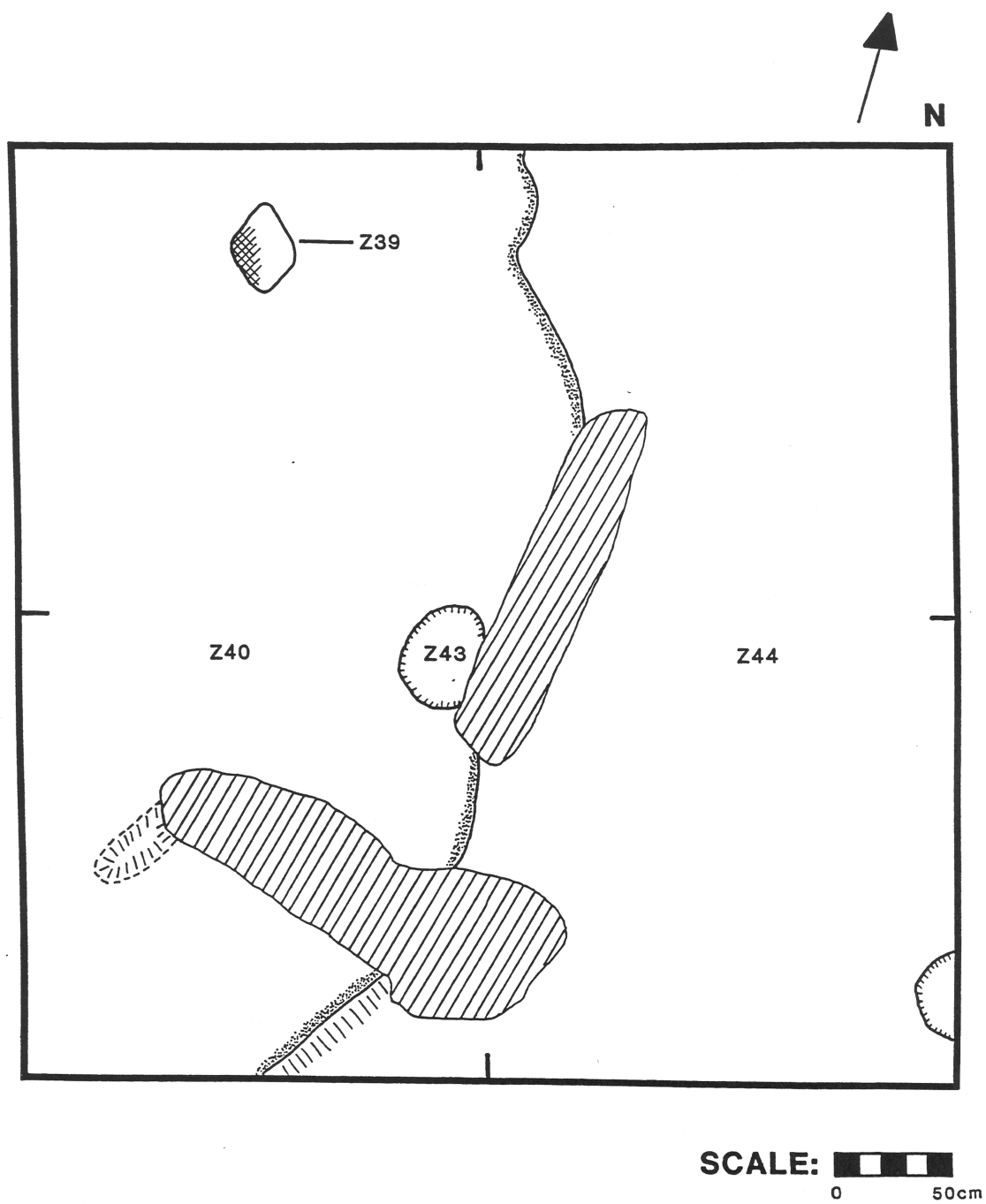


Figure 3.3. Operation 14, Construction Phase III (hatched areas indicate intrusive pits from higher floors).

As the site entered the Terminal K'atabche'k'ax facet of the Formative period, construction levels were rather low (see Figure 3.3, Construction Phase III). Inhabitants constructed a new plaster floor (Zone 40), a refuse midden (Zone 44), and a new fire hearth (Zone 39). The hearth is categorized as such due to heavy artifact concentrations, including *Pomacea* shell, faunal remains, and a serving vessel fragment.

During the succeeding Early Nohalk'ax phase of the Early Classic period, inhabitants of Structure 54 revamped their living area (see Figure 3.4, Construction Phase IV). The structure position was altered and a new plaster floor (Zone 37) was constructed on top of Zone 44. This plaster floor would be overlain with the most expansive and pristinely preserved plaster floor of Structure 54 (Zone 34) during the succeeding Late Nohalk'ax facet (see Figure 3.5, Construction Phase V). Residents at Structure 54 abutted this spacious plaster floor with a set of limestone blocks (Zone 36). The southern wall that abuts this limestone course is curved, exemplary of an apsidal building.

At the onset of the Nohalk'ax period, there was a distinct change in mortuary practices within many households at K'axob. These emerging trends hierarchically differentiated household groups. At Structure 54, Burial 8 (Zone 35; Figure 3.5), which includes an adult male, demonstrates this new specialized mortuary trend. The adult (Burial 8) was interred in an extended position within a pit measuring 195 cm long, 61 cm wide, and 38 cm deep near the southern curved wall (Zone 36). The body of the male was bundled within a reed mat, indicated by the negative impressions of a mat-like texture in the surrounding sediment (see Figure 3.6). Burial 8 also included three large vessels: a jar inverted over the individual's head, a dish to the left of the skull, and a bowl near the dish. Residents buried the deceased with six *Pomacea* shells, and capped the

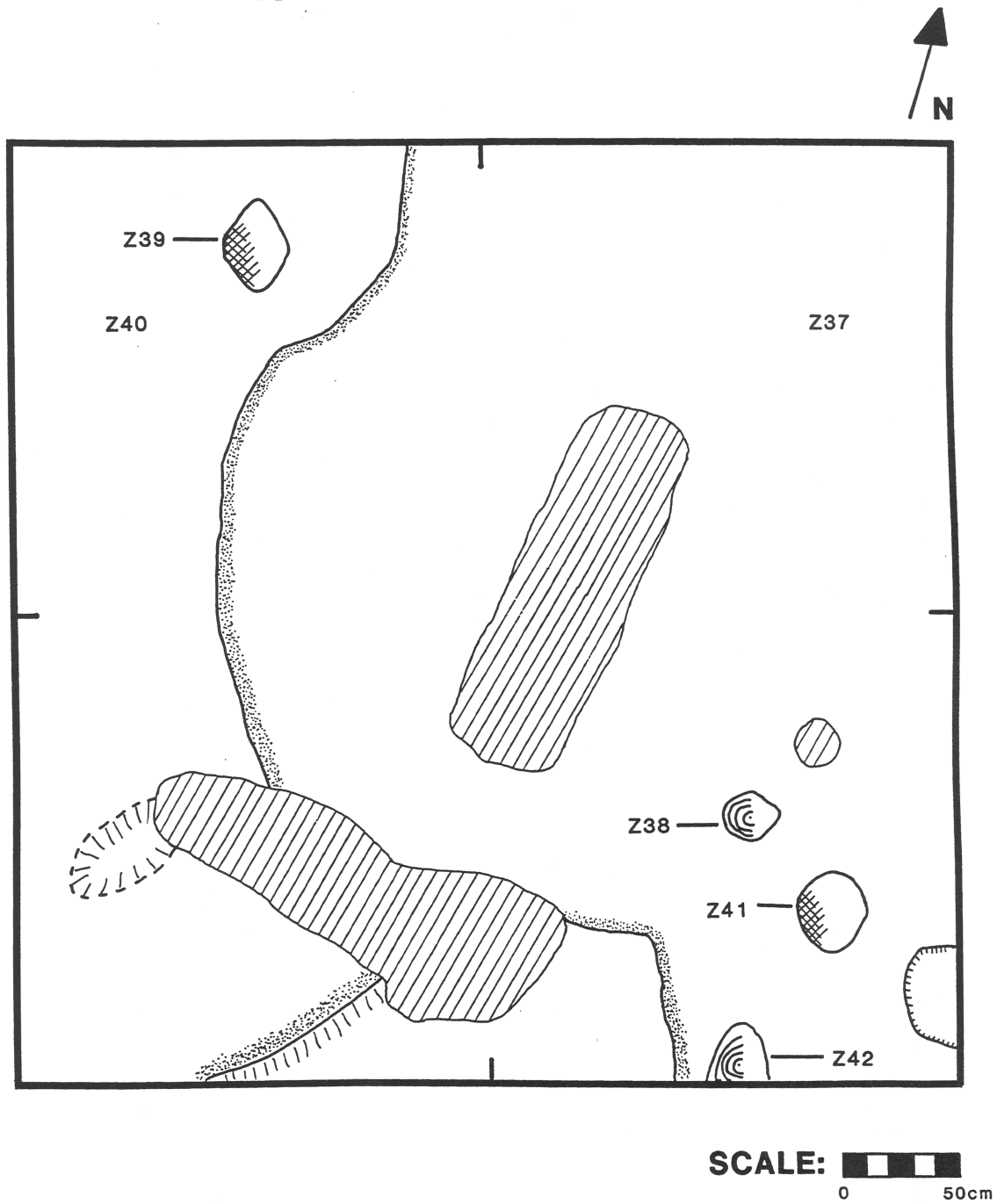


Figure 3.4. Operation 14, Construction Phase IV.

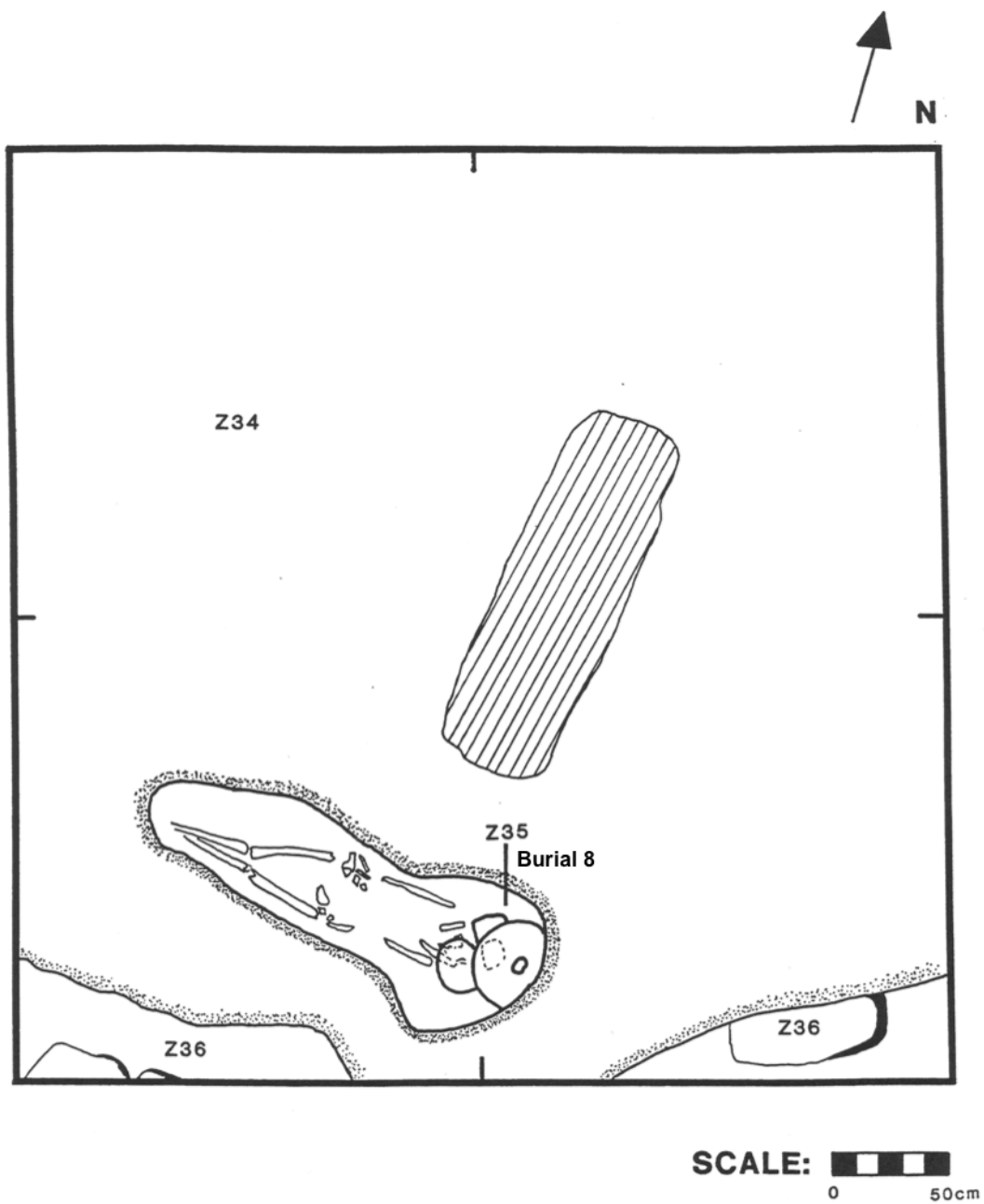


Figure 3.5. Operation 14, Construction Phase V.



Figure 3.6. Burial 8 (Operation 14) reed mat impression.

grave with plaster and three large rocks.

Moving into the Early Witsk'ax phase of the Late Classic Period, residents constructed another plaster floor (Zone 31) and a small pit (Zone 32) intended for cooking purposes (see Figure 3.7, Construction Phase VIa). Steps (Zone 28) were added to the front of the house, providing an entryway into the domicile. It was also during this time that residents decided to reorient structure 54 (see Figure 3.8, Construction Phase VIb). As inhabitants remodeled their household, they constructed a sloping plaster floor (Zone 19) on top of the earlier Zone 31 in order to connect the floor with the steps (Zone 28) near the southern household wall. Due to an increase in the house's size during this period, it needed to be supported by a considerable number of postholes (Zones 23, 26, 27, and 30), in addition to a cluster of nine smaller postholes (Zone 25). These smaller postholes could

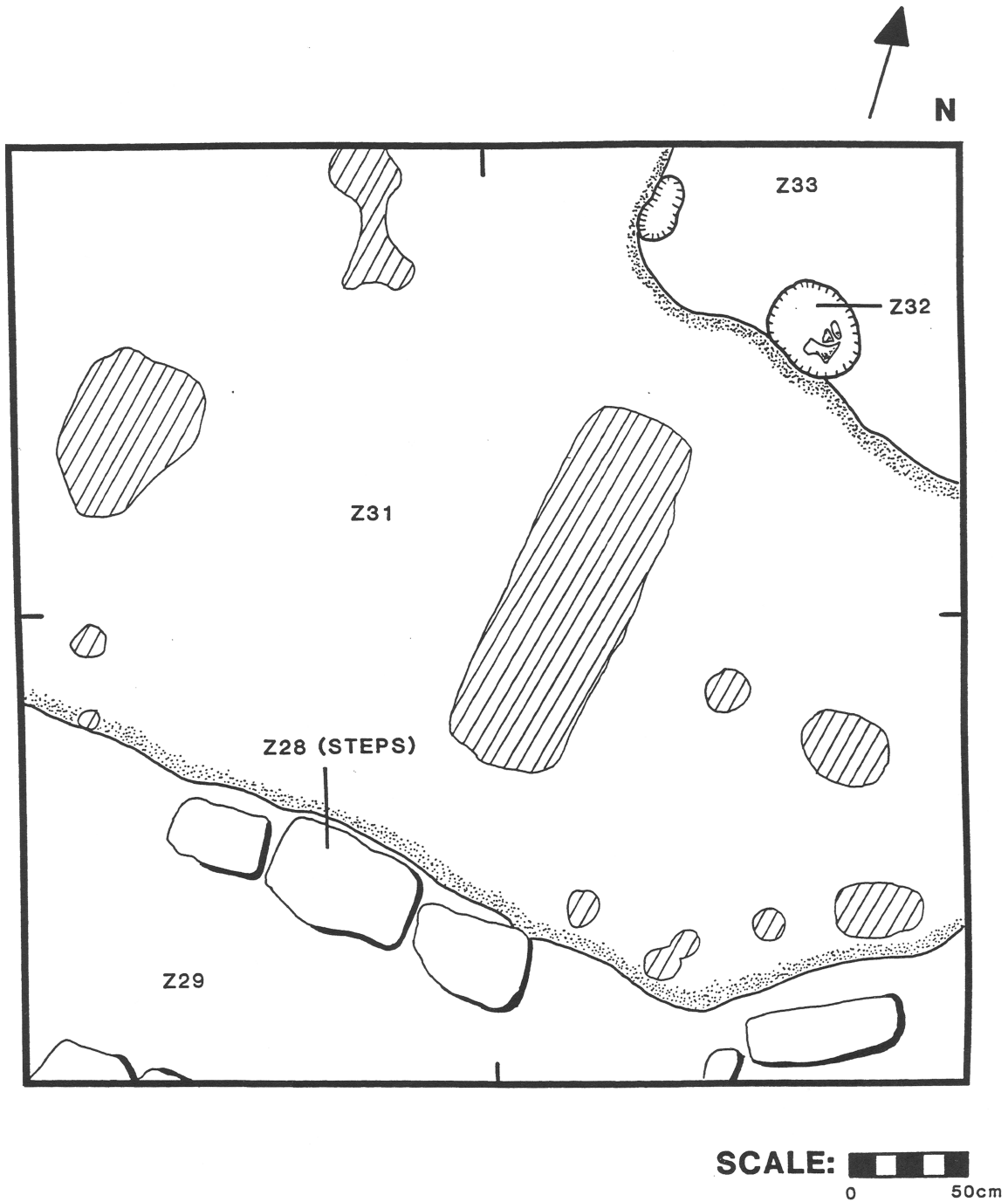


Figure 3.7. Operation 14, Construction Phase VIa.

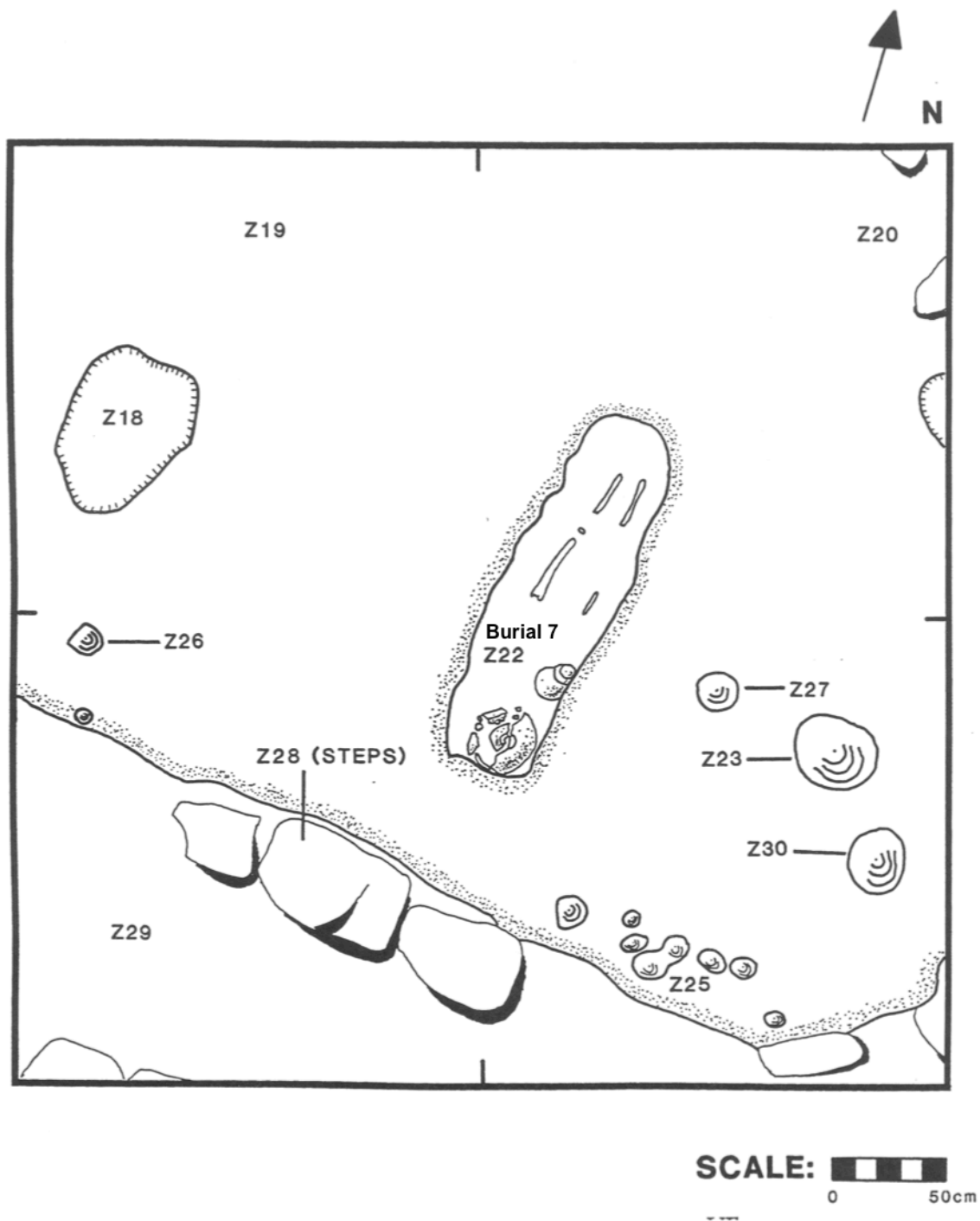


Figure 3.8. Operation 14, Construction Phase VIb.

have served as a support for vertical wall thatching (Schulz 1995).

During this construction phase, an adult burial (Zone 22, Burial 7) was placed within the residence. The individual was interred in a crypt-style pit that measured 164 cm long (north/south) by 52 cm wide (east/west) and 77 cm deep. Residents then capped the burial with three limestone rocks placed horizontally and an additional six rocks surrounding the body. Like Burial 8, the individual was interred with a “kill-hole” vessel inverted over the head, and a jar next to the right shoulder.

Structure 54 underwent the most complex architectural renovation during later Early Witsk'ax times (see Figure 3.9, Construction Phase VII). A wall (Zone 12) containing 13 medium-sized limestone rocks was first placed within the living area, and then later fortified with plaster. Parallel to this wall, another low wall was built (Zone 15). The area between these two walls (Zone 13) possibly could have functioned as a storage facility or porch area. Residents commemorated this extravagant construction with a small cache (Zone 7) located outside the walled area. This cache consisted of six stone tools and a projectile point.

Near the end of this construction phase, residents at Structure 54 experienced the death of an important individual. The individual (Burial 4, Zone 14) was interred in an extended position with skull to the north, oriented just 18 degrees east of true north. Residents buried the individual with an inverted “kill-hole” vessel over the head. No definable burial cut was present, probably due to the placement of the individual partially within the wall before the area was filled, with a new higher floor from the succeeding construction phase.

The final phase of this house includes a number of burials placed within the

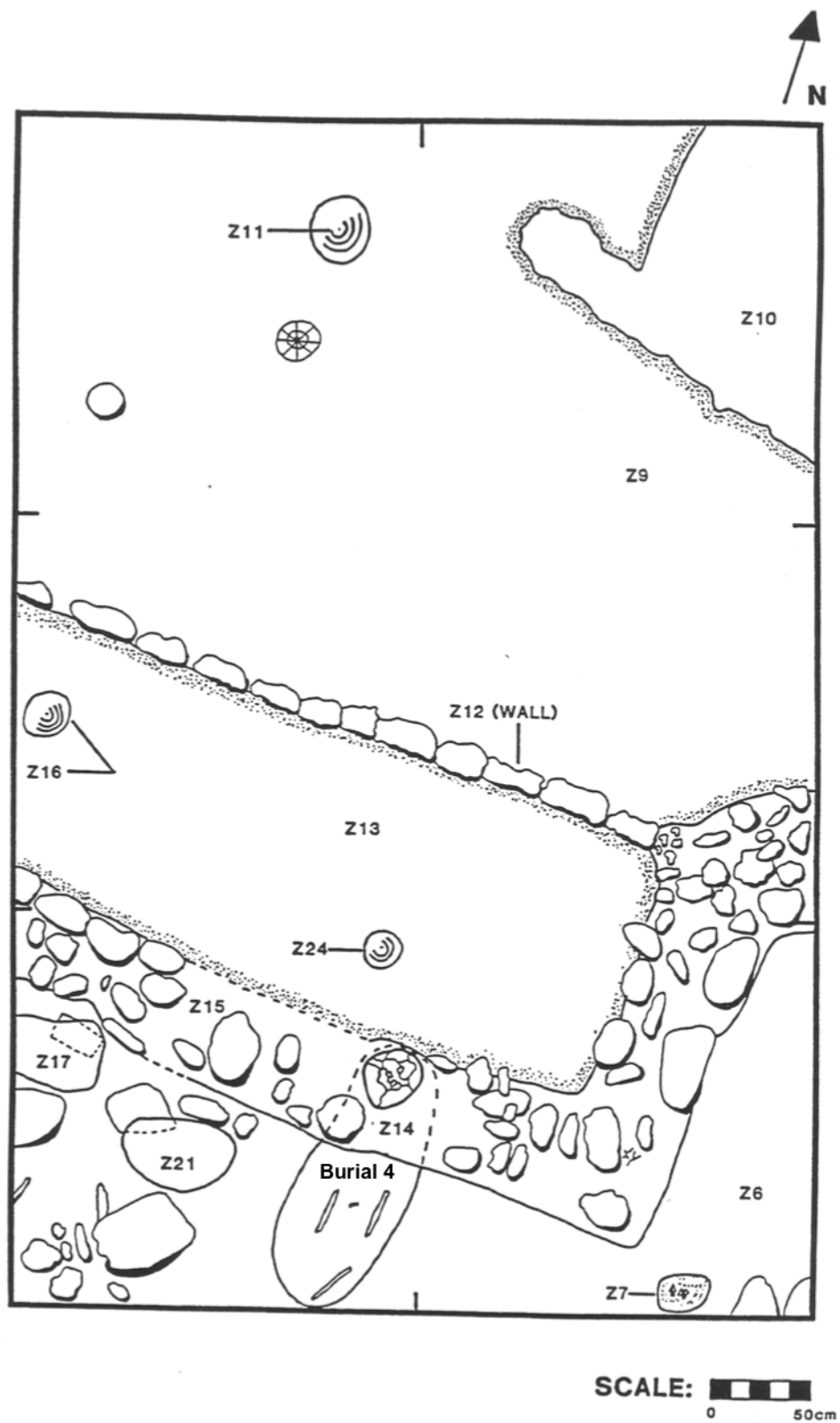


Figure 3.9. Operation 14, Construction Phase VII.

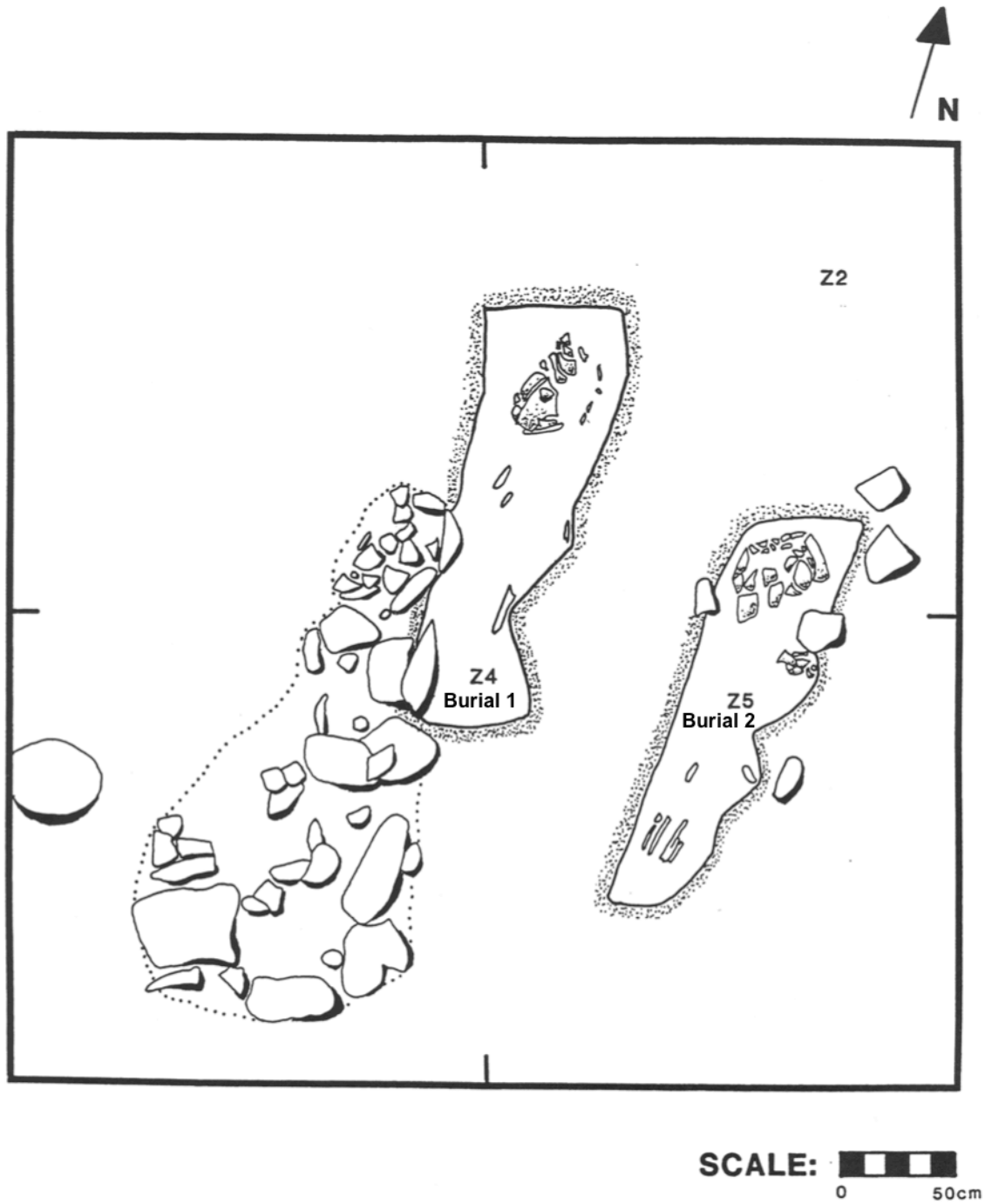


Figure 3.10. Operation 14, Construction Phase VIIIa.

domestic space. Three burials intruded into the plaster floor that spanned the entire excavation unit (see Figure 3.10, Construction Phase VIIla; Figure 3.11, Construction Phase VIIlb). Residents interred the individual in Burial 1 (Zone 4) during the Early Witsk'ax facet in an extended position oriented 18 degrees east of north, just like Burial 4. The pit of Burial 1 measured 176 cm long (north/south) by 57 cm wide (east/west) and 18 cm deep. An inverted "kill-hole" vessel over the head accompanied the individual. Just to the east of Burial 1, there was an additional extended burial (Zone 5, Burial 2). This burial also included an inverted "kill-hole" vessel, and could have possibly been related to the individual in Burial 1, given the burials' close proximity to one another. The final burial (Zone 8, Burial 3) in this last construction phase at Structure 54 was an adult male interred in a rock-lined crypt measuring 222 cm long (north/south) by 90 cm (east/west) and 32 cm deep (see Figure 3.11, Construction Phase VIIlb). Similarly, the body was positioned with the skull to the north, and an inverted bowl protected the skull. A dish was also placed near the cranium. The final occupational evidence at Structure 54 is a sole hearth (Zone 3), which intruded upon the parameters of Burial 3.

K'axob Mortuary Patterns: Terminology

Before we begin to discuss the mortuary patterns at K'axob and Operation 14, it is imperative to implement a standard terminology. The primary demarcation we need to make is the difference between a "grave" and a "burial". For the sake of argument, we will refer to the definitions provided by Welsh in his analysis of lowland Maya burials (1988: 15). A burial consists of interments of human skeletal material and associated artifacts that are placed within a grave context. In contrast, graves are any type of

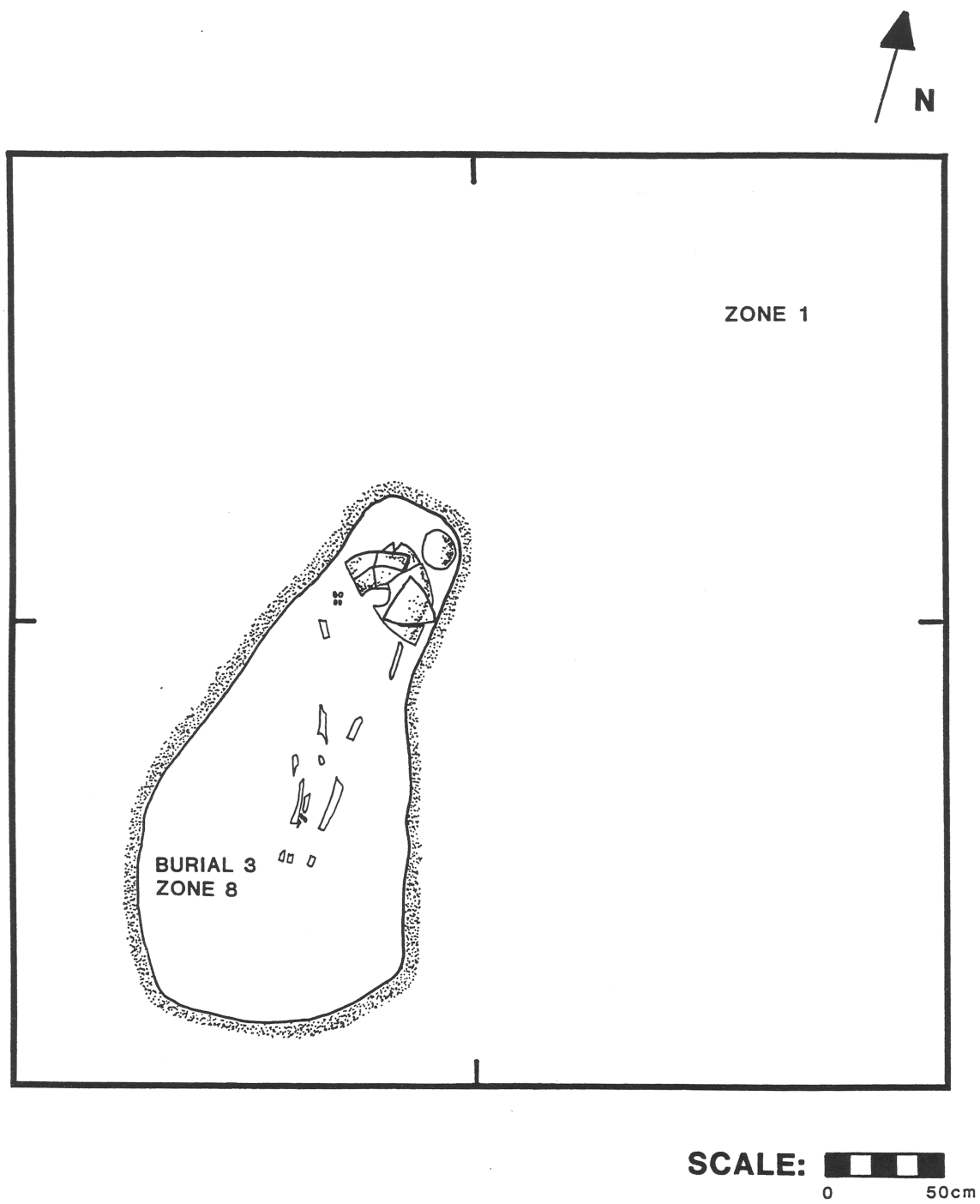


Figure 3.11. Operation 14, Construction Phase VIIIb.

receptacles or chambers that hold the deceased, including crypts, cists, and simple pits.

The burials at K'axob do not include cists; therefore, this term will not be used in this analysis. Welsh refers to "simple" pits as those that are unlined holes excavated into bedrock or structural fill (1988: 15). This category also includes graves that contain bodies placed directly into the construction fill. A "crypt", on the other hand, is more elaborate and requires stone-lined sides and a cap. Extended skeletons are the most prominent body position in crypts due to the longer dimensions of the grave (1988: 15). The only other type of burial found at K'axob is described as "in vessel", meaning the body was placed inside a ceramic vessel. The majority of these burials were children.

Another important category to explain is "burial position". Burial position refers to the way in which a body is laid out inside a grave. "Extended" burials include individuals placed in either a supine position or on their side, meaning the deceased's body is fully *extended*. These burials are common in the larger crypt graves, which have a greater amount of space. "Flexed" burials include individuals placed in the fetal position, and "seated" burials describe individuals typically in a cross-legged position as if sitting. The majority of these positions were recorded from Formative burials and at Operation 14.

K'axob Mortuary Patterns: Operation 14

Looking across the burial data from Structure 54, there is no denying that a cogent pattern exists. But what do these trends tell us about the residents of K'axob and their mortuary rituals? First of all, it gives insight into the systematic burial procedure in place at K'axob after the Late K'atabche'k'ax period. Table 3.1 details this change from

Table 3.1. Mortuary data from Operation 14.

OP 14	Burial No.*	Period	Construction Phase	# of Individuals	Age	Sex	Grave Type	Burial Position	Body Orientation	Grave Goods
Zone 8A	3	Early Witsk'ax	VIIIb	1	adult	male	crypt	extended	N-S	2 vessels; 2 marine shells
Zone 4D	1	Early Witsk'ax	VIIIb	1	adult	indeterminate	simple	extended	N-S	vessel #203 (human teeth under)
Zone 5D	2	Early Witsk'ax	VIIIa	1	adult	indeterminate	simple	extended	N-S	vessel #204
Zone 14	4	Early Witsk'ax	VII	1	middle-aged adult	undetermined	indeterminable	extended	N-S	vessel #211 (kill hole)
Zone 22	7	Early Witsk'ax	Vib	1	young- middle adult	undetermined	crypt	extended	S-N	vessel #222, 234
Zone 35c	8	Late Nohalk'ax	V	1	young-middle adult	male	crypt	extended	E-W	vessel #229, 230, 231
Zone 47	9	Late K'atabche'k'ax	II	1	1 to 2 years	indeterminate	in vessel	flexed	NW-SW	vessel #243 (turtle vessel)
Zone 51	10	Late K'atabche'k'ax	II	1	4 to 5 years	indeterminate	simple	crossed legs, seated style	undetermined	none
Zone 57	11	Late K'atabche'k'ax	II	1	6 to 9 months	indeterminate	indeterminable	seated	undetermined	16 shell beads around neck

*Burials 5 and 6 outlines were revealed (Zones 17 and 21), but because the majority of the burials were located outside the southern section wall, it was decided to not remove any partial burials.

slightly similar burials in the early construction phases at Structure 54 to the formal nature of burial ritual during later periods.

Beginning with the Late K'atabche'k'ax burials (Zones 47 and 51), buried individuals were primarily comprised of children in simple grave types. The burial positions for these two early interments were flexed and seated, respectively, most likely due to the small nature of the graves. Another important point to note is the random orientation of the body in these early interments. As opposed to the more standardized head to north and feet to south orientation in the later construction phases, Burials 9 and 11 exhibit a northwest to southwest and an inconclusive orientation, respectively. We do, however, see an important connection between burials and construction phases during the Late K'atabche'k'ax period. Burial 11, which cuts into the sascab surface, is placed near a posthole, indicating that the burial is most likely a dedication for that particular building program.

During the Late Nohalk'ax period, residents at Structure 54 initiated a more concrete practice for dealing with the deceased, restricted to adult burials. Burial 8 (Zone 35) is situated in an extended position in a crypt-style grave. This burial begins a pattern of extended burial positions, which becomes the norm for future interments at Structure 54. Burial 8 also establishes the predominant trend of crypts and elongated simple graves that characterize later burials. Although the body orientation varies from subsequent burials at Structure 54, Burial 8 provides strong evidence of a standardizing of mortuary practice. The individual was placed with an assortment of vessels and enshrouded in a reed mat, emphasizing this burial's ritual purpose.

By the Early Witsk'ax period, which encompasses the remainder of the burials at Structure 54, residents had established a formal way of interring their dead. Burial position was extended and the preferred grave type was a crypt, although two long simple pits were used for Burials 1 and 2. Exclusively, head to the north and feet to the south typifies the body orientation for Witsk'ax burials; however, these orientations were 18 degrees off true north. It is also during this period that we see a continuation of ritual grave goods and dedicatory motives. Every single burial is accompanied by a vessel, several with "kill-holes," indicating that these burials contained ritual elements. The placement of the Witsk'ax burials further indicates the notion of building program commemoration. Most of the burials (1, 2, 3, and 7) were single interments cutting into existing plaster floor surfaces, indicating that burials were situated prior to new construction phases in the domicile's history and may be linked to the personal history of the interred person. Although Burial 4 has no clearly definable cut, I would argue, based on the other burials, that this grave also cuts into an existing plaster surface.

K'axob Mortuary Patterns: Comparing Operation 14 to Operations 7 and 16

The inhabitants of Structure 54 had definitively formed a residential identity with regards to mortuary ritual, but are these practices ubiquitous throughout the rest of K'axob? As a means to compare mortuary information from Operation 14 with the rest of K'axob, I chose two different residential structures from different portions of the site. Operation 7, located in the southern portion of K'axob, was occupied during the Formative and Early Classic periods (see Figure 2.2). This excavation unit will allow us to discover whether the mortuary patterns at Structure 54 are a Classic period

phenomena, or if they have Preclassic roots. On the other hand, Operation 16, located in northern central area of the site, was occupied during the Classic period. This household makes an excellent contemporaneous unit to compare with Operation 14.

Excavated during earlier field seasons at K'axob from 1990 to 1993 under the direction of Dr. McAnany, Operation 7 yielded a similar layer-cake stratigraphy that preserved several construction phases (McAnany 2004c: 57). Operation 7 contains nine separate construction phases, beginning in the late K'atabche'k'ax and spanning into Early Nohalk'ax times. During the Early Nohalk'ax complex, there were a series of well-defined domiciles in the northern portion of the unit, suggesting a more concrete awareness of a residential group (McAnany 2004c: 57). Interestingly, the houses constructed resembled those seen at Structure 54, characterized by a front annex and axial interments (Burial 4, Zone 14, Operation 14). These similarities between Operations 7 and 14, particularly in the ways in which domiciles were constructed and how residents were interred, make Operation 7 a viable comparable excavation unit for assessing mortuary patterns found at Structure 54.

Although Operation 7 burials are few in number, they provide a sense of the view that inhabitants of southern K'axob had regarding mortuary practices. The majority of material from Operation 7 comes from the Early Nohalk'ax complex, which is associated with the transition into axial burial practices at Structure 54. Table 3.2 details the data from the two burials at Operation 7. At first glance, it appears that the burials have nothing in common with the burials at Structure 54 apart from the placement of the individuals in conjunction with construction phases. However, it is vital to note that the initiation of the crypt-style grave is present during the Early Nohalk'ax, similar to the

Table 3.2. Mortuary data from Operation 7.

OP 7	Burial #	Period	Construction Phase	# of individuals	Age	Sex	Grave Type	Burial Position	Head Orientation	Grave Goods
Zone 33/27	1	Early Nohalk'ax	VII	1	juvenile	undetermined	simple	bundle	undetermined	2 shell beads
Zone 30/63	2	Early Nohalk'ax	VII	1	adult	undetermined	crypt	flexed	NE-SW	2 polychrome vessels

appearance of crypts in the Nohalk'ax period at Structure 54. Additionally, the use of grave goods is in place by the Early Nohalk'ax period.

What is apparent, although two burials do not provide enough conclusive data for a potent argument, is the unstandardized patterning of burial practices during the Nohalk'ax phase. In the southern portion of K'axob, much like the north, there is this sense of an increasing elaboration of burial practices during the Nohalk'ax, but not quite an arrival at a standardized method of burying the deceased.

A similar trend appears in the mortuary data from Operation 16, which was excavated into a single platform, Structure 68, dating to the Classic period. In its earliest construction phases, Operation 16 displayed an array of mortuary practices. Burial positions, grave types, and body orientation vary quite a bit in the earliest excavated interments (see Table 3.3). During the later construction phases, however, there is a tremendous shift towards homogenizing interment practices. Body orientation became consistent with a southwest-northeast positioning, and grave type changed to a dominant use of simple pits. Grave goods are present across burials, apart from the occasional "empty" grave, and the majority of burials contained one individual. Because of the later time period of these burials, Structure 68's inhabitants' transition to standardized ways of burying the dead directly correlates with later trends of standardization at Structure 54.

Another interesting observation to note is the appearance of multiple individuals in single burials and the diversity of ages among interments. Unlike Operation 14, Structure 68 contains numerous pairings of an adult with a younger child within single burials. Also different to Structure 54 is the presence of a single identified female adult in the burials at Structure 68. Although other individuals could not be sexed due to poor

Table 3.3. Mortuary data from Operation 16.

OP 16	Burial #	Construction Phase	# of Individuals	Age	Sex	Grave Type	Burial Position	Head Orientation	Grave Goods
Zone 18	6,8	IV	2	middle-older adult, adult	undetermined	simple	undetermined	SW-NE	vessels #213, 214 / vessel #216
Zone 12	1	IV	1	young adolescent	undetermined	simple	flexed	SW-NE	vessel #202
Zone 26	12	III	1	indeterminate	indeterminate	simple	undetermined	SW-NE	vessel #215
Zone 19	7	III	2	young to middle adult	undetermined	simple	bundle?	SW-NE	vessel #223
Zone 17	3, 4	III	2	adult, child 5 to 7 years	indeterminate	simple	extended/seated, seated	SW-NE	vessel #212
Zone 56	26	III	1	undetermined	undetermined	simple	undetermined	SW-NE	none
Zone 16	2	III	2	old adult, 7 to 9 years	undetermined	simple	seated, flexed, or bundle	SW-NE	vessels #207, 208, 209, 210
Zone 24	9	III	1	middle-older adult	undetermined	simple	seated or flexed	SW-NE	none
Zone 24	11	III	1	5 to 7 years	indeterminate	simple	bundle	SW-NE	vessel #218
Zone 27	13	III	1	4 to 5 years	indeterminate	simple	seated	SW-NE	vessel #217
Zone 32	14	III	1	middle-aged adult	undetermined	simple	flexed	SW-NE	vessels #220, 219, 221
Zone 55	25	III	1	undetermined	undetermined	simple	undetermined	SW-NE	vessels of Burial 14
Zone 35	16(and 18?)	III	1 (maybe 2)	adult	undetermined	directly in fill	bundle	SW-NE	none
Zone 39	19	III	1	4 to 6 years	indeterminate	directly in fill	bundle	SW-NE	large vessel
Zone 31	15	III	1	adult	undetermined	simple	undetermined	SW-NE	vessel #224
Zone 41	20	III	1	middle-aged adult	undetermined	undetermined	undetermined	SW-NE	vessels #225 and #227
Zone 25	10	Ib	1	adult	undetermined	simple	seated	SW-NE	vessel #228
Zone 36	17	Ib	1	adult	undetermined	simple	seated	SW-NE	none
Zone 43	5	Ib	1	undetermined	undetermined	simple	undetermined	SW-NE	none
Zone 44	21	Ib	1	4 to 6 years	indeterminate	undetermined	undetermined	SW-NE	vessel #235
Zone 50	22	Ib	1	middle-aged adult	undetermined	undetermined	undetermined	SW-NE	large "burial plate"; vessels #232 and 233
Zone 52	23	Ib	1	adult	undetermined	undetermined	none	undetermined	none
Zone 53	24	Ib	1	middle-aged adult	female	simple	extended	E-W	large "burial plate"

bone preservation, I would conjecture that some of the other individuals, especially those interred with a child, are female. Whereas residents at Structure 54 are more exclusive in terms of whom they inter within the household, inhabitants of Structure 68 are more inclusive, incorporating females and children. Due to the high frequency of burials at Operation 16, it is possible that this structure was used for other family members besides the household heads, opposite to the mortuary pattern observed at Operation 14. With further sex information and excavation, it would be interesting to see if these houses hold to this seemingly gendered division of space.

So what does all this mean? On the very surface, there is a relationship between construction phases and burials. As residents initiated a construction or decided to remodel their domicile, they interred their deceased into the floor of the previous household. The deceased dedicated the new construction phase, and the burial of family members within the residential context allowed them to be omnipresent (McAnany et al. 1999). Interpretations and arguments for the reason behind this association are provided later in this chapter.

I suggest that standardization of burial practices occurred near the end of the Nohalk'ax period and continued into the Witsk'ax period, but with residential variations and preferences. All three Operations analyzed (7, 14, 16) show variable mortuary patterns prior to the Late Nohalk'ax phase, and thereafter a systematic method of interment. Although inhabitants of Structures 54 and 68 adopted standardized burial practices, they differ in the characteristics they chose to standardize. For example, residents of Structure 54 chose a north to south orientation of the body and a crypt grave type, whereas Structure 68 residents favored a southwest to northeast orientation and a

simple pit grave. Although K'axob residents as a whole were creating this sense of uniform burial practices during the Late Classic, it is ultimately the residential groups that decided which practices and characteristics to institute.

K'axob Mortuary Patterns: Comparing K'axob to Cuello and Tikal

To determine how K'axob mortuary trends fit into the larger geographic context of the Maya lowlands, it is advantageous to compare K'axob to other nearby sites, particularly Cuello and the more distant and larger site of Tikal. Cuello is an archaeological site in northern Belize that fits into the larger regional framework in which K'axob was located. The site itself dates back to the Middle Formative period, and extends well into the Late Classic, when inhabitants experienced a substantial population decline (Wilk and Wilhite 1991). Like K'axob, the site consists of numerous residential groups clustered around central patios. Residents at Cuello disposed of their dead within the residential space in a manner akin to mortuary practices at K'axob.

During the Early Classic period (congruent to Nohalk'ax at K'axob), burial beneath the domicile floor became the norm, as did the practice of placing grave goods with the interred (Wilk and Wilhite 1991: 128). Burials were even incorporated into structural fills and floors, especially during periods of remodeling or reflooring (Hammond 1999: 62). This notion of burying the dead within the residential space found at K'axob also appears in other sites of the New River valley. When excavators analyzed a sample of 124 Preclassic individuals at Cuello, they discovered increasing homogeneity through time. Crypt graves became the predominant grave type during the Late Formative period, and the placement of grave goods inverted over the skull developed as

a norm (Robin 1989: 124). Grave goods, however, were more elaborate at Cuello due to residents' access to jade (Storey 2004: 114). Primary inhumations were also the most prevalent mode of interment and, in general, there was a growing sense of evenness across burials dated to the Late Preclassic. This transition towards standardized mortuary practices in the New River valley, although it occurs at variant times, is thus represented at both K'axob and Cuello.

But does this sort of patterning develop at monumental sites such as Tikal? During excavations of small residential groups at this site in modern-day northern Guatemala, archaeologists discovered that of 31 burials, all but seven were found in structural fills (Haviland 1985: 141). So clearly, even in the Petén region, there was a tradition of burying the deceased in the residential spaces of ancient Maya peoples, which correlates well with Landa's ethnographic observations of mortuary ritual during the sixteenth century (Ruz Lhuillier 1965: 458). But at Tikal, there is also a similar transition to standardized mortuary practices during the later part of the Classic period. Imix-related (Late Classic period) burials largely included bodies positioned north to south, with the skull to the north (Haviland 1985: 148). In the earlier Manik (Early Classic) burials, no such predominance exists. A similar movement towards homogenization is seen in body position, moving from a randomized position in the Early Classic to a flexed position for females and flexed or extended position for males in the Late Classic (Haviland 1985: 148).

Although no data were published on the variation between households in different areas at the sites of Tikal and Cuello, I would argue that a residential preferential treatment of burials at these different areas probably did occur, similar to the

phenomenon at K'axob. The K'axob data are unique in demonstrating a divergence in how residential groups systematized burial practices. What Tikal and Cuello mortuary data do show includes two lines of evidence: a conventional practice of interring the dead within the domicile and an establishment of a sort of norm for inhumation, albeit with regional and residential disparities.

Land Legitimization and Ancestral Presence

Moving away from the standardization of burial practices at K'axob, why are residents interring their deceased in the household? What is the reasoning for placing these burials into an existing floor, prior to a new construction phase? After extensive research, I arrived at three plausible interpretations for the relationship between burials and house construction: land legitimization through ancestral presence, the use of burials as cache dedications, and the idea of “killing” previous household family lines entombed in the domicile floors.

Before discussing these interpretations, it is imperative to define what is meant by the term “ancestor”. An ancestor, with regard to burials, is thought to be a revered deceased member of the family. After three to four generations following the death of the individual, the deceased eventually loses their individual identity and becomes part of a general category called “ancestors” (Hutson 2010: 100; Sharer 2009). Ancestors are venerated by members of the household and, as a result, constitute a critical force and presence for the residential family (McAnany 1995: 7). However, ancestors do not encompass all of the deceased members of a family line; rather, they are a selective subset of the total familial members. Especially during the Late Classic, ancestor burial

under house floors was reserved for a selective group of people, primarily comprised of adult males who were leaders of residential groups (McAnany 1998: 278). Accounts from Bishop Diego de Landa in the sixteenth century echo this observation, stating that only certain lineage heads were venerated after death and given preferential burial treatments (McAnany 1995: 29).

Through the placement of ancestors in the household context, residents were centering that critical force around them and the lands they claimed, tying the residential group to this claim via their ancestors. Since residents ritually placed their ancestors underneath the floors of their living space, they were anchoring their past to a specific location based on this continuous ancestral presence through burial (Gillepsie 2000: 475; McAnany 1998). The act of interring within the domicile thus acted as a sort of kin-group history. In Classic Maya texts, the only term that scholars have found for lineage is *naah* or “house” (Houston and Inomata 2009: 49). Therefore, the idea of lineage within Maya society may have been equivalent to the domicile. For Maya peoples, the house and ancestral lineage are interconnected, as the remains of the deceased continued to “live” within the house (Houston and Inomata 2009: 51).

What does this signify in terms of burials at K’axob? Well, one could argue that buried ancestors are legitimizing the land rights of the residents who occupied households like Structure 54. Ancestors were placed in these households as a way to safeguard the interests of K’axob residents (McAnany 1995: 100). By repetitively interring principal members of the residential lineage, residents insure a “chain of continuity” from generation to generation (McAnany 1995: 160). When residents terminated an older structure and commenced building a new one, the incorporation of ancestors into the

actual construction propagates their claim to the land and re-emphasized their authority over the household structure. Similar anthropological studies on the relationship between lineages and land tenure systems have been documented from cultures in Africa, Asia, and the Americas (McAnany 1995).

This interpretation coheres very well with the excavated material from Operation 14. Most of the burials at Structure 54 contained adults, most likely male, which we would expect to see if household mortuary rituals were reserved for lineage heads. The burials themselves were placed in conjunction with building phases, possibly as a means to lay further claim to the land and articulate the residents' power. K'axob residents at Structure 54 were thus creating a strong connection to the place in which they live through repeated ancestral veneration.

Burials as Caches

Another interpretation, although a newer development in the scholastic field of Maya archaeology, is the proposal that burials acted as caches. This argument centers on the idea that ancestors "nourish" not only the living, but also supernatural forces (Houston 2009: 211). Caches are thought of as deposits of obsidian, shell, flint, and other objects usually placed in a ceramic container found within constructions. These deposits are considered to be intentionally placed to dedicate the building or area under construction (Welsh 1988: 170). Ancient Maya peoples believed that if the land was anthropologically modified, the Earth Lord would have to be compensated in some way. Most of the time, especially in the southern portion of K'axob, caches served to fulfill this compensation. But it is also important to note that subfloor burials in the K'axob

domiciles could have also functioned as a means to appease the Earth Lord (McAnany 1999: 131).

Marshall J. Becker (1992: 191) introduces the notion of thinking of burials in terms of caches. He argues that it is possible that the interment of an individual alongside cached objects (lithics, ceramic vessels, etc.) may not have differed from caches with regards to intent. Archaeological evidence may not be amenable to a decisive determination of the intent of burials, but feasible interpretations, such as burials as caches, should still be considered and evaluated. Other scholars, such as W.B.M. Welsh have also noticed the ambiguity between burials and caches (1988).

Becker backs up his argument by invoking the “problematic deposits” of Tikal that contain both burial and cache elements. By containing both elements in the same deposit, the “problematic deposits” suggest that both burials and caches were being disposed of in the same manner and pattern of deposition (Becker 1992: 191).

Traditionally, the cache elements in these burials have been treated as offerings for the human remains, widely interpreted as “grave goods.” But Becker challenges scholars to think of these vessels and lithics not just as offerings for the interred individuals, but also as dedicatory items for the gods. Perhaps interred ancestors did not just legitimize land, but also served as a way to compensate the Earth Lord for disturbing the land via household construction (Becker 1992: 193). Before every new construction phase came a renewed need to appease the Earth Lord, causing residents to bury individuals into the pre-existing floor prior to building on top. This would thus compensate the Earth Lord for the construction that followed.

Another scholar, Rosemary Joyce, urges archaeologists to consider the commemorative aspect of subfloor burials in Maya households (2011). Joyce claims that burials are locations of three intersecting practices: the incorporation of materials into household spaces, the deliberate placement of objects in various locations, and the commemoration of a place that evokes memory. Using data from excavations at Puerto Escondido, Honduras, a site occupied beginning in 1600 B.C.E., Joyce notes that the first deliberate subfloor deposits occur around 1400 to 1100 B.C.E. (2011: 36). These deposits showed functions of commemoration, incorporation, and deliberate placement, since they coincided with construction phases marked by plaster floors.

Around 900 B.C.E., the residents of Puerto Escondido began to add mortuary offerings to these deposits in the form of human skeletal elements (Joyce 2011: 38). These skeletons were added to these existing practices of commemoration, incorporation, and deliberate placement, in conjunction with larger construction projects. Adapted to these three already in-place practices, burials begin to serve multiple functions. Based on the historical roots of cache and burial placement, it is completely plausible to suggest that burials serve a commemorative purpose that has traditionally been attributed to caches. If burials acted as caches, however, residents would have placed them in pre-existing floors prior to starting the new construction project and adding a new plaster floor; compensation for land disturbance would have been prepared prior to construction. Although some scholars would argue against this, sufficient evidence is warranted to completely dismiss the theory.

People at K'axob were already operating within this dedicatory mindset, so it is feasible that burials may have served as a votive offering for household construction.

Domiciles of K'axob acted as both the subject and locus of ritual performance (McAnany 2004a: 7). Furthermore, evidence of ritual deposits in the modified wetlands surrounding K'axob attest to the fact that residents were cognizant of how they affected the land and the supernatural forces that governed the land (McAnany et al. 2003). Dedicatory caching also exists at other excavation units at K'axob (particularly Operations 1 and 7), but is relatively low in frequency at Operation 14. Residents at Structure 54 may not have felt the need to include caches to consecrate construction phases because intrusive ancestral burials were already fulfilling that role. Burial 11, the Early Classic child buried near a posthole at Operation 14, could attest to this early form of incorporating burials into the role of caches. Given its close proximity to a posthole, the burial could possibly have a dedicatory function for an early construction phase at Structure 54. Although we cannot definitively establish the real intention of these burials, it is important to consider that residents may have been placing burials with a dual purpose in mind.

“Killing” Past Family Lines

The final interpretation involves the idea that burials were a means of “killing” a previous family line that had occupied the structure. In this theory, residents belonging to a new family group buried their ancestors prior to their new household construction. By placing a new building over a previous one, residents ritually ended the “life” of the past residence, and gave “life” to a newer one (Piscitelli 2007: 109). The inclusion of the ancestors in this context legitimized the new family's ties to the land and discredited the previous family's rights.

Placing a new building over another one ultimately destroys the building that once occupied the space. Scholars have remarked instances of “killing” through the evidence of coincidental destruction of elite group shrines and family tombs (Hutson 2010: 119-120). Levi-Strauss noted in many societies that people tend to refer to their ‘houses’ as the source from which they derive their lineage and their identity (Gillepsie 2000: 476). Therefore, destroying, or ‘killing’ a building, kills the identity and the presence of the social group attributed to that structure (Hutson 2010: 119). This interpretation ties into the land legitimization theory first presented in this chapter, except it goes a step further. Instead of being a continuous presence of ancestors from one family line at a household, there is a break in the line coinciding with each construction phase. It differs from the first interpretation in that several lines occupy the same household area, but the reasoning for burying the deceased within the household to strengthen ties to the land remains the same.

The strongest evidence for this interpretation at Operation 14 consists of the most complex architectural renovations during the Early Witsk’ax complex (Construction Phases VIb and VII). Typically, the idea of “killing” previous lineages is most noticeable when a major renovation completely covers a previous domicile (Becker 1992: 189). These phases reoriented the household and covered the majority of the previous house’s location. Walls were added and a porch constructed, signifying that this was a massive development in the history of Structure 54. According to the theory of “killing” past lines, the residential family during the Early Witsk’ax period underwent this massive construction to “kill” the previous family group and lay claim to the land.

Evaluation and Conclusions

Upon considering all three of the interpretations, I believe the first two postulates hold the most promise. Figures 3.12 and 3.13 provide visual evidence of patterns that support the first two postulates. In each of the figures, the burials are spatially arranged according to sex and age, in which each rectangle represents an individual. Figure 3.12 shows the distribution of grave accouterments, while the other combines the same distribution with the context of each burial. At first glance, it is obvious that patterns are more standardized in Operation 14, whereas they are more varied in Operation 16.

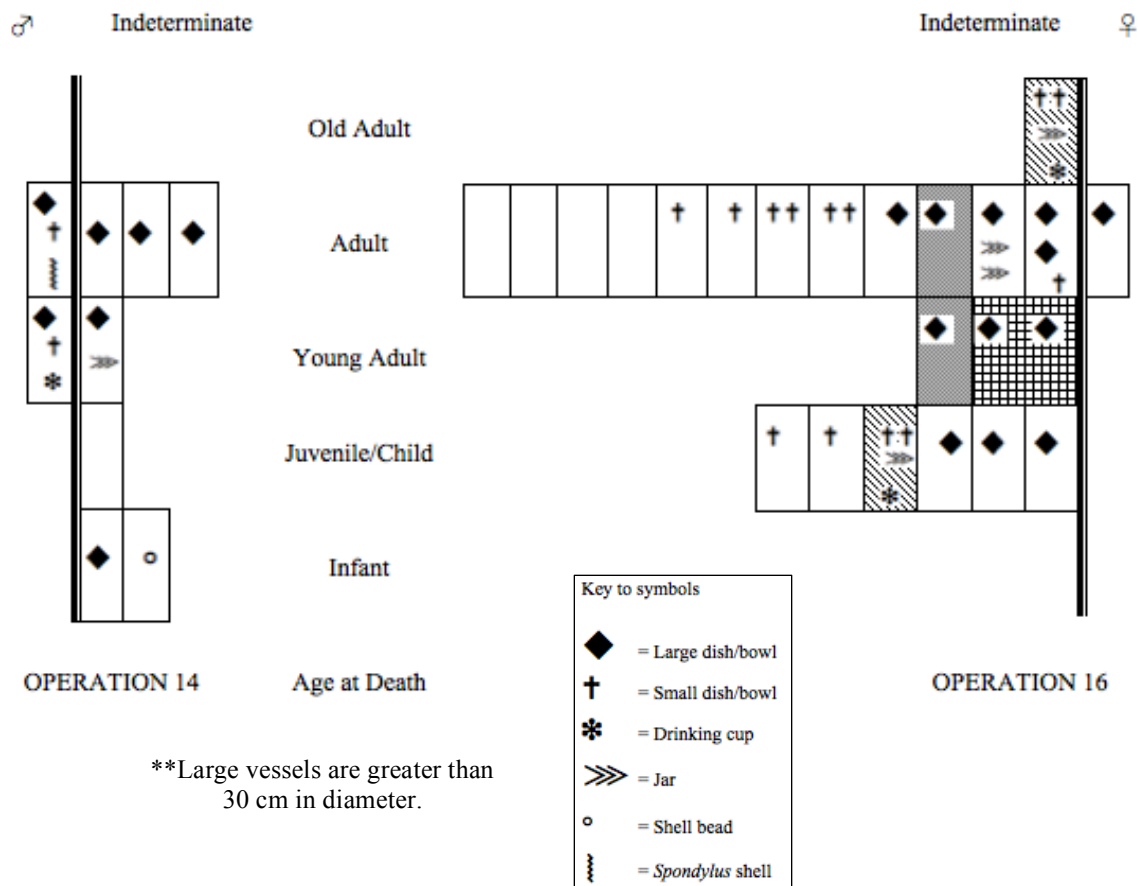


Figure 3.12. Distribution of grave accouterments across sex and age. Shading indicates individual pairs in a single burial in which grave goods were not associated with a particular individual. Thus, the objects are attributed to both individuals.

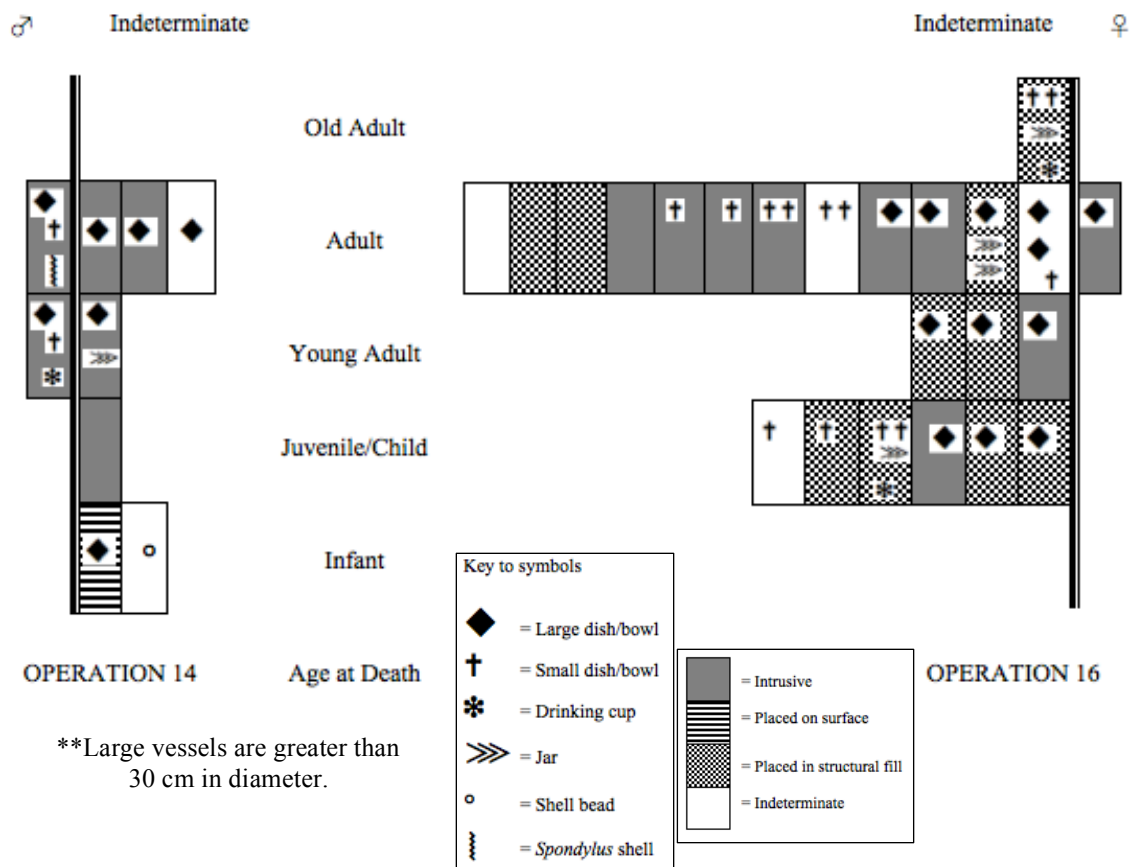


Figure 3.13. Distribution of grave accouterments and burial context across sex and age.

With regards to land legitimization, it is extremely possible that ancestral burials facilitated a continuous presence to secure land rights. Given the fewer individuals and more analogous burial characteristics at Operation 14, it seems that Structure 54 is a nexus of ancestral ritual activity. Burials at Structure 54 mainly contain the skeletal remains of individuals that would fit into the category of adult male household heads, which constitute our expectations for an “ancestral” presence. The standardization of grave accouterments in these adult burials requires the presence of at least one large dish or bowl. The inclusion of this large vessel may hint at the importance of the individual, but what is interesting here is the ritualistic nature of these mortuary patterns.

Furthermore, these burials also include precious grave goods not found in Operation 16 like shell beads and *Spondylus*. The burials of Structure 54 seem to follow a pattern of an intrusive context coinciding with similar grave assemblages. These consistencies among burials indicate a repetitive, ritualized way of interring the dead at Structure 54. By completing this ritual each time an individual is interred, residents are effectively renewing the ancestral presence contained within the household. The repetitive physical anchoring of these ancestors into pre-existing floors prior to construction ultimately leads to a reinforced linking of the kin group to the land associated with the domicile.

Land legitimization through ancestral presence is also supported by strong ethnohistoric evidence from Bishop de Landa (McAnany 1995: 29). Although there is strong ethnohistoric evidence for ancient Maya burials, the intent of the ancient residents of K'axob may have differed from that of 16th century Yucatec Maya peoples with whom de Landa came into contact. It is really problematic to assume the intentions of past peoples from those of descendants, but they do give us a framework in which to work, since the intentions of past peoples are nearly impossible to reconstruct.

As far as the second interpretation, burials as caches is a contention that cannot be easily discredited. At Structure 54, burials are accompanied with cache type objects, such as ceramic vessels and beads, making it difficult to discern whether these burials do or do not serve a dedicatory purpose similar to a cache. Particularly, the variety and standardization of grave accouterments at Operation 14 are similar to assemblages found within caches (see Figure 3.13). Furthermore, the fact that these standardized burials overwhelmingly intrude into pre-existing plaster floors links the ritual with house construction. By placing the individual inside the house prior to the new construction,

residents were essentially dedicating the building program that was about to occur. Therefore, these burials might have served as dedicatory caches for successive construction programs rather than as termination ritual caches, which are typically located near postholes.

The main problem with this interpretation is analogous to the problems faced with proving the land legitimization theory: the difficulty of determining residents' intentions. Although it appears that burials were used in a dedicatory sense, we cannot soundly ascertain whether they are fulfilling this role. The only evidence we do have is that the correlation between burials and construction phases, and also the repetitive placement of ritual goods inside the graves, suggests this view of offering to the Earth Lord as a possibility.

The final explanation for burials at Structure 54 and K'axob at large is rather impractical in my opinion. My main doubt lies with the proposal of different family lines living in the same area over time. I believe, as was common in ancient Maya society, that one line occupied a structure for generations. The idea of switching over the household to a new residential group every hundred years or so does not seem feasible to me. If lines did switch over and "kill" the domiciles of previous residential families, it would not have happened frequently. The construction phases at Operation 14 are too great in number, and it just seems impractical to have such a volatile change in power and land owning every few generations, especially since there is minimal evidence of conflict or warfare at K'axob.

In summary, I would argue that the first two interpretations most effectively characterize the burials found at Structure 54 and K'axob. Of the two, I would be keen to

say that the second seems most rational since there are very few caches at Structure 54, and residents were already compensating the gods for the nearby wetland modifications. It only seems logical to me that this idea of offering resources to the gods in the wake of architectural programs would have paralleled into the ritual locus that is the Maya household.

Chapter 4

History of Museum and Visitor Studies and their Relation to Looting

Reflecting upon previous chapters, we know that K'axob residents are interring their deceased underneath domicile construction floors. Beginning in the Classic period, K'axob inhabitants standardized burial practices, but with residential preferences, as evidenced by the data from Operations 7, 14, and 16. Additionally, I argued that burials are serving two functions: to legitimize land rights of household residents and to act as caches prior to new construction phases. But what follows interpretation? The next step in this thesis is to display discoveries made about the burial practices at Structure 54 in a way that critiques conventional museum exhibits. Before discussing my exhibit and how I handled the presentation of the information in chapter five, it is necessary to outline a brief history of museum visitor studies and why modern archaeological museum practices need attention.

Following an extensive amount of scrutiny and publication in scholarly books and journals, most archaeological data are left for others to discover and study. But does this fulfill a scholar's role as an educator? I believe that the answer is a resounding "no." As academics, archaeologists have an ethical responsibility to increase public awareness of the past in an accessible manner. To fully complete the archaeological process of excavation, analysis, and publication, the final step should include a public presentation of some sort. Without addressing the significance of their finds to the public in some manner, scholars fail to complete the sharing of knowledge that is so fundamental to academia. In order to propagate archaeological knowledge, it is this final step of public presentation to communities outside of academia, such as children, adolescents, the

elderly, and those who live proximate to the archaeological site under study, that really embeds information with a sense of value and purpose.

Although public presentation can occur in a variety of forms, including lectures and documentaries, there is none quite so unique and accessible as displaying information in a museum or exhibition context. Lectures and documentaries can be intimidating to individuals without a substantial academic background, whereas exhibits allow visitors of all backgrounds to explore knowledge in a somewhat neutral space. Over the centuries, museum and exhibition directors have tried to increase public accessibility and adapt displays to become more conducive to knowledge absorption. Out of these actions grew the specialized discipline of museum studies, a field that has been dynamically changing since the turn of the 17th century.

The second half of this thesis focuses on museum studies and how new advancements in the theory of the discipline aid in completing the archaeological process begun at K'axob. To begin discussion of recent innovative museological theory, a brief history of museum and visitor studies from the initiation of museum institutions in the Hellenistic period to the modern day archaeological museums is presented. This chapter critically evaluates failures in museum exhibits and visitor experiences and places the blame on the loss of information contingent upon the museum procurement of looted materials. From this investigation arises a methodology to address conventional museum problems, which serves as a framework for my exhibition of Operation 14 material from K'axob.

Early “Museums”

Although most people consider museums to be a modern phenomenon, these educational institutions are rooted in Greek culture and ideology. During the classical era of Greek civilization, rulers housed scientific specimens and collections in temples dedicated to the Muses, the patron divinities of the arts in Greek mythology. These temples, or *mouseion*, provided a way for philosophers and academics to study the arts. One of the first *mouseion*, located in Greek Alexandria, served as a central locus in which a community of scholars could assemble and interact (Kaplan 1995: 41). At the very beginning of their creation, museums were inherently limited to a special class: an elite group of academics.

For several centuries, *mouseion* were the main archetype for museum institutions. It was not until the Renaissance and Age of Exploration that a surging demand for new locations in which to display scientific discoveries emerged. During the Renaissance, Western society experienced a resurgence in artistic ventures and new scientific interests. The desire to explore and observe the natural world spawned fleets of ships designed to chart undiscovered lands and waters. In the end, discovery led to the arrival of new objects and peoples in Western Europe. With these new collections and revelations, explorers and collectors wanted to display their splendor to friends and colleagues. During the 16th century, Western peoples were infatuated with and mystified by objects coming from newly discovered lands. Intrigue led to a desire to attain more, which ultimately expedited the formation of what we think of as the traditional museum.

During the 16th century, Wunderkammern, or “curiosity cabinets”, alleviated the need for collectors to display their scientific marvels, better known as “curiosities”. These

“cabinets” displayed a wide variety of natural and man-made objects in a single location, allowing visitors to open their mind to the wonders of the world (Crane 2000: 68).

Typically, Wunderkammern consisted of small rooms that displayed a crowded arrangement of artifacts found during expeditions. Artifacts were not labeled and most of the time, but not always, were classified in a general categorical hierarchy from animal remains to weaponry. The most famous of these Wunderkammern was Worm’s Cabinet in Copenhagen (see Figure 4.1).

Although Wunderkammern initiated the idea of allowing people to view realms previously unknown for educational purposes, “curiosity cabinets” were still very confined in their benefits. “Cabinets” were not really viewed by the general public; rather, they catered to an aristocratic populace. Collections reflected the individual collector’s interests and his/her growing necessity to identify and classify “scientific” objects (Alexander and Alexander 2008: 56). This classification had only a surface-level organization based on general similarities among objects, and collectors often did not know the true function or histories behind the objects they displayed. It was more akin to a “show and tell” and was only an attempt to truly pursue knowledge through public presentation. Vision served as a credible way of understanding these objects and, in a more general sense, the world (Yanni 1999: 31). However, Wunderkammern are significant because they laid the foundation for modern museums, which redefined and modified these early codification strategies (Crane 2000; Yanni 1999).

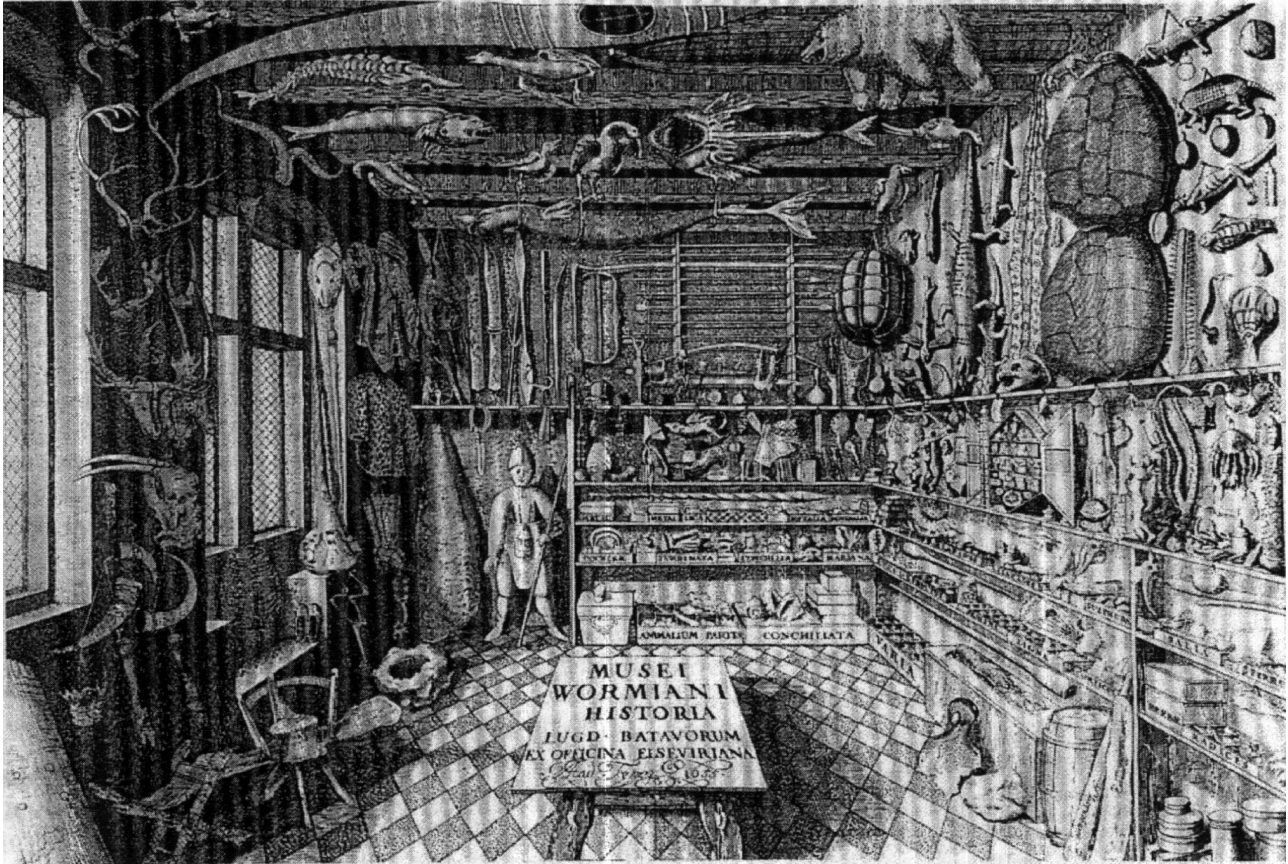


Figure 4.1. Interior of Olaus Worm's museum, a typical Wunderkammer of the sixteenth century (from Crane 2000).

The Beginning of “Modern” Museums

Our conventional model for the museum began in 1683 with the introduction of the first public institution, the Ashmolean Museum. The Ashmolean was an institution established at the University of Oxford, representing the first natural history museum (Alexander and Alexander 2008: 55-57). Originating from the collection of strange and exotic objects that Elias Ashmole gave to the University of Oxford, the Ashmolean Museum sought to provide an educational opportunity for English society. Museums like the Ashmolean categorized items in a more systematic manner, fashioning the first labels to provide a sense of what kinds of intrinsic knowledge the objects contained.

Following the foundation of the Ashmolean, the Louvre opened its doors to the French public in 1793 during the French Revolution. The idea of permanent public museums carried across the Atlantic with the establishment of the Charleston Library Society in 1773 (Alexander and Alexander 2008: 61). Coinciding with a political climate filled with revolutionary fervor and a breakdown of social hierarchy, public museums grew exponentially in number. No longer was the museum restricted to the upper echelon of society; it was now accessible to the greater community.

As collections became more accessible to the general public, we begin to see the first occurrences of legislature for museological institutions. In Britain, the Museums Act of 1845 marked a significant moment in the development of archaeology museums. The act established the first fully public archaeology museums in England. In order to ensure the success and fecundity of these archaeological collections, the Museums Act authorized local authorities, who governed a population of over 10,000 people, to spend up to a certain amount on museums as a means to promote “the instruction and amusement of the public” (Pearce 1990: 15). Prior to the Museums Act, archaeology museums were university operated and reflected the interests of a small cadre of learned professionals, which limited accessibility to the larger community.

During this early development of the modern museum, authorities were beginning to think about public involvement in the museum context. An emphasis was placed on the need to convey information to the public for the purpose of education and dissemination of historical and aesthetic information. Although still early in the development of visitor studies, these early museums and their associated legislature provided a foundation for visitor studies at the turn of the 20th century. An important theme that began during the

17th and 18th centuries in institutions like the Ashmolean is the problematic acquisitioning of objects from private collectors. These collections were, and arguably still are, mainly comprised of stolen and looted goods.

The Emergence of Visitor Studies in the 1900s

Prior to the 1900s, visitor studies were practically non-existent. No published studies of visitor experiences existed until the early part of the century. One of the earliest publications on visitors and their reactions to museums exhibits was published in 1916 and entitled “Museum Fatigue.” The author, Benjamin Ives Gilman, produced an innovative study of awkwardly structured gallery spaces and the physical obstructions experienced within these displays (Hein 1998: 42-44). Gilman encouraged museum directors to structure galleries in a more visitor-friendly manner, accounting for visitor movement and optimal object visibility. Emphasis was placed on the need for an efficacious flow of visitors within the exhibit space.

Gilman’s study remained the only major study on visitor experience for about twenty years; other publications existed but none were as innovative with regard to “Museum Fatigue.” In the 1930s, visitor studies experienced huge advancements that set the basis for further studies in the field. Writing in 1935, Arthur Melton drew attention to the visitor and was generally concerned about creating exhibits that catered to the average needs of the public (Belcher 1993: 175). Melton also conducted extensive studies of how visitors spent time within art museum galleries, observing a direct correlation between the number of objects or works on display and the time the visitor spent within the gallery space.

In 1949, another scholar by the name of Alma Wittlin published a history of museums, which ultimately resulted in a call for expanding the educational role of displays and exhibits. Wittlin recognized the need for thematic displays, contextual information for objects, and a broad range of presentation methods (Hein 1998: 46). Melton and Wittlin both contributed to furthering the field of visitor studies and established a primary function of a museum: to fashion an educational experience for the public.

During the post-war period, interest in visitor studies expanded dramatically, largely due to increases in government spending and social science research (see Table 4.1). The museum profession underwent a staggering growth in not only size, but also the quality of museum studies research (Hein 1998: 52). In the 1960s, research began to center on exhibit effectiveness in terms of educating the public. James H. Carmel, in 1962, wrote that a successful museum exhibit imparts a measure of stimulation and

Table 4.1 Number of papers on visitor studies in the twentieth century. Adapted from Hein (1998: 53).

	De Borhegyi [*]	Shettel ⁺	Screven [¥]	Hein [§]
< 1920	1	1	1	3
1920s	2	1	4	5
1930s	10	9	15	20
1940s	9	4	5	13
1950s	31	5	8	26
1960s	48	36	68	
1970s		99	143	
1980s		225	335	

Notes: ^{*}Data from De Borhegyi and Hanson (1968) citing literature through 1965.

⁺Data from Shettel (1989) citing literature through 1988.

[¥]Data from Screven and Shettel (1993).

[§]Hein (1996). A listing of US and British papers published before 1960.

enjoyment for the visitor and is not necessarily determined by the drawing of large crowds (Belcher 1993: 201). In Harris Shettel's 1968 *Strategies for Determining Exhibit Effectiveness*, he suggested that exhibit effectiveness is based on a designer's concern with three aspects: attracting the visitor, maintaining that attraction, and maximizing learning during that attraction (Belcher 1993: 199).

In the 1980s, scholars of museums studies began to question whether museums were enacting any of their suggestions for better accomplishing the museum's primary goal. They even started to question the validity of their own studies, stating that public museums themselves differed from country to country and even institution to institution (Belcher 1993: 178). In order to be successful and further advance the field of visitor studies, scholars and museum directors would have to speak to the diversity of public museums.

New Museological Theory

Even though the field was growing, museum studies were still rather limited. Visitor attraction and exhibit effectiveness are both important factors to consider, but no one had yet studied how to address the diversity of visitors from different economic, social, and ethnic backgrounds. During the 1990s, a shifting interest from objects and displays to public audiences fueled the creation of a 'new museological theory' that addressed visitor diversity (Alivizatou 2012: 20).

There were three major defining movements within new museological theory. The first was an emphasis on thinking of museum objects as more contextual than inherent. Museum objects are not able to relay all of their associated information solely through

aesthetic display. It would thus be the job of the exhibit curator to display this contextual information about the history of the object alongside the actual object itself (Macdonald 2006: 2). The second goal of theorists in the new museology was a desire to urge museums to involve all classes of the public domain, specifically incorporating minorities and underrepresented peoples. Museum personnel were urged to understand their publics as diverse, plural, and active, rather than homogenous and passive (Macdonald 2006: 8).

The final focus of new museological theory acknowledged the interaction between the first two contentions, arguing that museums inevitably shape how various kinds of objects are interpreted. The way a museum designs an exhibit, conveys information through label text, and even presents the object greatly influences visitor experience. Other factors that the museum cannot control, such as the backgrounds of people who enter the exhibit, also play a part in the visitor experience and affect the resulting interpretation of displayed objects. The best museum displays immerse the spectator in the exhibit and are more cognizant of how public spectators interpret objects within the display (Smith 1989: 20).

Although a move in the right direction, according to the opinion of this author, new museological theory and practice did contain flaws. Composing theory is one thing, but enacting it is something entirely different. Since New Museologists emphasize the need to convey ideas to the public, they often forget about the objects themselves (Witcomb 2003: 86). Although labels can provide a wealth of information and context, there is also some value within the objects that cannot be expressed in text, referred to as “aesthetic value”. A museum that ignores aesthetic value generally produces laborious quantities of text and reading materials, a common theme in history and archaeology

museums. On the opposite site of the gamut are those that place too much emphasis on the aesthetic value of archaeological material, particularly art museums like the Metropolitan Museum of Art in New York. The real craft is finding equilibrium between these two extremes.

Falk's Museum Visitor Experience Theory

Although not completely perfect, new museological theory does provide a framework within which modern theorists in the field are currently working. In 1992, John Falk and Lynn Dierking began an in-depth study of visitor experiences within the museum space, working within the new museology mindset. Although the two identified with new museological theory, they went a step further by developing an argument on public diversity and concentrating on the application of the theory. Falk and Dierking noticed that each visitor's experience was different because individuals bring their own cultural and social backgrounds with them when they enter an exhibit (1992: 67). The visitor museum experience is thus the aggregate of the visitor's constructed personal, social, and physical backgrounds (1992: 55).

After studying various installations, Falk and Dierking observed that visitors generally asked questions about the objects within the exhibit and attempted to personalize the objects in order to understand them. The problem was that most exhibits in the Falk and Dierking study were designed under the assumption that visitors would be able to relate and absorb all the information presented (1992: 68). However, this was not the case. Rather, museums are free-choice learning environments where an individual selects what to learn and which exhibits to attend (Falk and Dierking 2000: 71).

After relating multiple observational studies, the two authors offer suggestions on how to fix dilemmas in museum practice. They advocate an exhibition design that allows visitors to personalize the information presented (Falk and Dierking 2000: 182). Museums would be more persuasive if the staff better understood the function of learning within the exhibition space, the reasons why people frequent museums, and the various factors of an individual's background that facilitate education. The only way to accomplish this goal, according to Falk and Dierking, would be to tap into the personal histories of the visitors and engineer positive experiences in order to enhance their motivations for visiting the public museum.

In 2009, John Falk published a book entitled "Identity and the Museum Visitor Experience" in which he outlines the theory behind museum visitor experience and how museums can explicitly manufacture exhibits to better adhere to personalizing experiences. Falk opens his theory with a disclaimer that no model for enhancing museum visitor experience is perfect, but there is a necessity for some sort of model because museums currently lack one (Falk 2009: 22). The main intention of Falk's model is centered on the moment when an individual's identity-related needs and interests converge with how the museum caters to those interests. These needs and interests are everything to the museum visitor experience because they are the predominant vehicles for experiencing the museum (Falk 2009:81). The goal of the museum is thus to reinforce these interests through exhibition design.

Falk's museum visitor experience model has been extremely useful and helpful in creating the exhibit for this thesis. His major points are outlined here to aid the reader's

understanding of his theory and how it influenced the “Housed Within” exhibit as detailed in chapter 5:

- The museum visitor experience is not something tangible; it is a constructed relationship between the visitor and the museum.
- The museum visitor experience actually begins before anyone sets foot in the museum.
- Most motivations for visiting a museum fall into one of five categories: explorer, facilitator¹, professional/hobbyist², experience seeker, recharger³.
- Museum experiences are strongly shaped by personal (prior knowledge, experience, interest), physical (specifics of exhibition design), and socio-cultural (group interactions in a museum) contexts.
- The visitor perceives his/her experience as a success if initial motivations and interests are satisfied.
- Museum visitor experiences should result in either a stronger sense of self-identity or an enhanced understanding of the museum.

Falk’s visitor experience model serves as the basis for the “Housed Within” exhibition design. The exhibit focuses on improving the communication between museums and the public in reference to the display of archaeological materials. Falk’s theory provided an excellent jumping off point for contemplating the exhibition’s development. The exhibit also addresses current problems in conventional archaeological museum practice and relates these problems to a dominant cause: looting.

¹ Facilitator: a visitor who “facilitates” the group’s understanding of the display.

² Professional/hobbyist: an individual with some previous knowledge of the exhibit theme.

³ Recharger: a leisure-seeking attendee of an exhibit.

The Issue of Looting: Historical Roots

Ever since the initiation of museums in ancient Greek society, looting has played an integral role in the creation of collections and displays. For thousands of years, looters have ravaged archaeological sites and taken significant artifacts and objects, stripping them of their provenience and contextual information. Looting can be defined as everything from undocumented excavation of archaeological sites to cases of theft from public museums and the illegal export of cultural property across international borders (Zimmer-Hollowell 2003: 45). I believe it is looting that has caused the countless problems that museums have faced and are currently addressing, especially in terms of finding the balance between aesthetic and contextual displays of objects.

Looting traces back to antiquity with events such as the Persian looting of Athens after its fall in 480 B.C. After the fall of Athens, Persian forces removed a pair of statues known as the “Tyrant Slayers” from the Athenian agora, carrying them back to Persia (Brodie and Gill 2003: 31). Early instances of looting have always been tied to conquest and warfare, as one nation would take another’s goods, or “booty”, as a sign of superiority. During the Age of Exploration, looting switched over to the hands of private collectors and explorers, as evidenced by the Wunderkammern. Out of this new network of object collection developed auction houses. Auction houses facilitated a growing fascination with collecting antiquities and foreign objects, setting a precedent for modern auction houses like Christie’s and Sotheby’s in London, which have been operating since at least the nineteenth century (2003: 32-34). Auction houses offered a lot of money for acquired goods, which encouraged the illegal antiquities trade to expand.

As technological advancements occurred in the twentieth century, illegal trading and looting amplified. Web sites such as eBay and Amazon began to feature looted items, as individuals sold everything from North American Folsom points to Aztec carved stone architectural elements, selling for up to \$29,000 (Kersel 2006: 188). Recent reports have indicated that looting is occurring at such an alarming rate that looted material can be acquired in auction houses, antiquities shops, on eBay, and even from personal donations. However, few museums will admit to knowingly accepting and purchasing looted antiquities.

In order to stem the flow of illegally acquired antiquities across international borders, many archaeologically rich countries have taken strong stances against looting. Many nations have instituted strict national patrimony laws forbidding both import and export of looted goods, including Denmark, Japan, Switzerland, Sweden, and the United Kingdom. In 2002 and 2003, several more countries joined the 1970 UNESCO Convention against international looting, now totaling 123 member states (Gerstenblith 2006: 76). New Swiss legislation has made it possible for the state to take measures when Swiss cultural heritage is jeopardized, and British statutes have created new offenses for “tainted cultural objects” crossing into the nation’s borders (2006: 76-77). However, nations are not yet well equipped to handle illegal cases and are unable to provide an effective disincentive to those who profit from the looting of archaeological sites and cultural institutions.

Some museums have instituted procedures for handling looted objects that comply with globally binding legislation. Particularly, the University of Pennsylvania Museum in 1970 stated that they would no longer purchase art objects or antiquities

unless objects were accompanied by a compelling pedigree (Renfrew 2006: 247). Several other museums have taken similar stances, but there are still quite a few public museums that accept illegal objects. For example, Britain has widely accepted that no public institution should purchase unprovenanced antiquities, although nothing is enforced (Renfrew 2000: 16). Gradual and incremental change is underway, perhaps more so than ever before, but there is still a lot of work to be done.

The Issue of Looting: the Perspective of Latin America

Looting has been extremely prevalent in Latin America due to the lax nature of legislature on illegal trade. Historically, indigenous peoples in Latin America have been mistreated and underrepresented in the legislative branch of government, making it difficult for them to protect their cultural heritage. Particularly, looting has caused serious problems in the nations of Argentina, Peru, Belize, and Mexico.

Objects have constantly been documented in Argentina as coming from unknown sources. Every day, thousands of people cross the border between Villazón and La Quiaca, concealing looted items in their possession (Schávelzon 2002: 231). It is thus difficult to discern between items that have been stolen, are fake, or have unclear origins since items are brought into the country and sold quickly. Argentina has traditionally had an exporting role in the international market rather than an importing one (2002: 234). Consequently, the majority of looted items that cross the border are leaving the nation rather than entering it.

Another South American country, Peru, has also experienced difficulties in dealing with illegal trading of archaeological objects. In particular, Moche sites on the

north coast of Peru have been subjected to looting since the 16th century. Excavations at Sipán, under the direction of Walter Ava, endured problematic events when armed looters ransacked several of the site's Moche burials. Prior to excavation, Ava was aware that a royal tomb had already been looted, and its contents dispersed on the black market (2001). Some of these funerary goods were sold to major museums in Peru and institutions abroad, which had publically displayed them. Ava did take the initiative of using the devastating events to promote a series of educational products in Peru and raise awareness of the importance of preserving cultural heritage through archaeology (2001: 96).

Looting has not only plagued the South American continent; it has also reached nations in the Maya region such as Mexico, Guatemala, and Belize. The Maya area has suffered from a large number of looting incidents that have increased in recent years, especially in Belize and the southern parts of the Yucatán peninsula (Nalda 2002: 215). In the Mexican state of Quintana Roo, multiple Maya archaeological sites have been plundered by teams of looters periodically camped in the vicinity of excavations. Upon analyzing the remains of these camps, it is evident that looters are working to fulfill the demands of foreign collectors with sufficient resources. Collectors seek rare items such as jade, shell, polychrome ceramics, and stelae (2002: 217). According to modern Mexican law, all objects pertaining to pre-Hispanic cultures within the nation's borders are part of Mexico's archaeological heritage, and removal of such objects is illegal (2002: 205). However, the law is not stringently enforced and it is easy to smuggle goods in and out of the country.

Starting at the turn of the twentieth century, Belize became a nation of archaeological fascination. Bringing in a large influx of archaeologists and looters, the country of Belize had to set legislation in motion to protect ancient monuments and artifacts. The Belizean government established the DoA (Department of Archaeology) in 1957 to protect archaeological sites in Belize, regulate excavations conducted in the country, and ensure that archaeologists conduct investigations according to Departmental guidelines (Gilgan 2001: 75). The DoA and now its daughter the Institute of Archaeology (IA) regulate every artifact that crosses the nation's borders and require permits for exporting archaeological finds.

However, the IA does not catch every artifact that leaves Belizean borders. In 1982, a survey found that a third of all registered sites in Belize had been affected by looting and that 74 percent of major ceremonial centers had experienced looting (Gilgan 2001: 77). A year later, another survey found that the number of registered sites damaged by illegal excavations had increased to 58.6 percent (Brodie and Doole 2001: 3). Over time, these looted items have appeared in Pre-Columbian auction houses owned by Sotheby's and Christie's. In the last 29 years, only 87 people have been charged for illicit antiquity trading in Belize (2001: 85). Even though there is anti-looting legislation in Belize, statistics of arrests and looting indicate that the IA, working with customs, cannot effectively quell illicit trading, a ubiquitous theme throughout Latin America.

The Issue of Looting: How it Affects Museums

To tie together the discussion of looting with how it affects museums, I examine how context is lost when an object is stripped of its provenience. When an artifact is

taken from its context, all of the associated information that it once contained is lost (SAA 1984). Archaeologists look to context, or provenience, to access knowledge about the relation of an artifact to other artifacts and features and to learn more about the inhabitants who once resided at the site. An artifact's location within the stratigraphy of an archaeological site gives us a sense of the artifacts' temporal and spatial contexts; without it, we are left with very little. We can still look at an artifact and guess its cultural sphere, function, and form, but these are inferences that are only enhanced tremendously by reference to context and stratigraphy. Context allows us to determine the qualities of an object and how it fits into our larger understanding of the culture and peoples who generated the object.

Without provenience, museum curators are forced to construct information based on the aesthetic appearance of the object. In doing so, objects often are reassigned value through a Western lens (Kreps 2003). This lens is often biased, which can create complications when relaying this information to the public. If an artifact can easily be faked, so can its provenience, often leaving the public misinformed about the true nature and function of the artifact in question (Barker 2003: 76). If an object is looted from its original context, museums are left to estimate a culture's way of life (Viñas 2005: 34).

Although museums acquire a lot of their looted items from auction houses that sell unprovenienced artifacts, there is another major supplier of unprovenienced objects: private collectors. Donations and purchases accepted by public museums usually undergo some investigation, but not always. Private collectors that donate or sell artifacts to museums often buy objects from an international black-market network of dealers (Ford 1984: 141). After a collector has no more need for an object, he/she either sells or donates

the artifact to a museum and if the latter, takes a tax write-off. Museums gladly accept donations because they do not have to pay for the item, but if they do, private collector's prices tend to be negotiable.

Items without context force curators to present objects with little to no text, which sometimes is not even accurate. If museum curators would cease this commonplace practice and only accept items with extensive contextual information, then curators may not find it difficult to display the item in terms of presentation style. Archaeological museum exhibits would not have to solely depend on the aesthetic value of the artifacts, but could instead focus on balancing extrinsic contextual information and inherent aesthetic value.

Chapter 5

Vitalizing Museum Visitor Experience Theory

Diving from theory straight to practice is difficult for any academic field, no matter the subject. Historically, museum curators have experienced problems when applying visitor theory to their exhibition designs. Today, these difficulties still persist. In dealing with the burial data from Operation 14, I found it challenging to relay my analysis in a display that catered to Falk's visitor experience theory. Looking retrospectively across the history of museum studies, I sympathized with previous curators and exhibition designers who have had to tackle large collections of artifacts. It is such an arduous task to consolidate large quantities of information and artifacts into a single display and it would be even more daunting if the majority of those artifacts had no provenience as a result of looting.

Particularly, museum exhibits on materials from archaeological excavation have a hard time vitalizing museum theory. Traditionally, archaeological galleries have been gloomy places full of large ceramic vessels and copious quantities of confounding text (Swain 2007: 228). These dimly lit spaces as well as lengthy, technical labels dissuade visitors from attending such exhibits, especially if the visitor does not have a professional background in archaeology. In the 21st century, modern archaeological galleries generally have extended traditional models rather than questioned them (Swain 2007: 49). Curators of archaeological displays have limited the public's access to information through these intimidating exhibits. If visitors do not attend the exhibit, how can archaeological knowledge be transmitted in a museum setting?

After pondering this confounding problem of modern archaeological exhibit displays, I began to think about how to solve this dilemma. How could I effectively create a display that conveyed archaeological ideas about the materials from Operation 14 in a manner that was accessible to the public? According to Falk's theory, effective exhibits are designed to include a wide variety of backgrounds that visitors bring to the museum. In order for the K'axob exhibit to be effective, I needed to extrapolate on the idea of public diversity and devise a way to accommodate it within the display.

I considered diversity in Chapel Hill, especially in terms of my educational experience. The area of Chapel Hill encompasses a wide spectrum of people, from small children just beginning their schooling to esteemed university professors. I knew that it was impractical to encompass all aspects of diversity when creating this exhibit, so I decided to focus on creating an exhibit that could be understood, while appealing to the area's wide range of public diversity to the best of my ability. Differences in knowledge and education level categorically fall into visitors' personal and social backgrounds (Falk 1992: 55). Focusing on differing levels of education among visitors would thus provide a cohesive underlying task for the K'axob exhibit.

I decided to create a layered exhibit, one that would offer something to every kind of audience member. These layers would appeal to visitors with different experiential backgrounds, especially with regards to education and age, which is usually correlated to one's education level. The design would be interactive and would implement accessible information for children, college students, archaeologists, professors, adults, and the elderly, to name a few kinds of visitors. A curator should be a facilitator, encouraging all

types of visitors to partake in a process of self-discovery and empowerment (Witcomb 2003: 79).

In this exhibit, I hoped to do just that. I decided to provide visitors with all the information they would need to play the role of an archaeologist, a role that is often misunderstood in the eyes of the public. In this chapter, I explain each segment of the K'axob exhibit, describing the design process and the hurdles I faced. First, I outline overall details of the exhibit design and then break down the installation by each of its sections. I wish to present my thoughts and decisions in the hope that other curators might find this information useful for future museum exhibition programming and planning. Ultimately, this chapter is about the visitor and how I try to convey my understanding of the inhabitants buried at K'axob who were revived through visual representation in this final stage of the archaeological process.

The Exhibit Space

The first task before me was to acquire a space for the installation. I initially wanted a space about the size of a small gallery, but was open to suggestions and variants. Since the exhibit would open in eight months time, space was extremely limited. I eventually acquired two spaces: one in a historic house that housed the Chapel Hill Preservation Society and the other, the atrium of Wilson Library. After consulting directors and visiting both locations, I was instantly drawn to the historic home, the Horace Williams House.

What I initially loved about the Horace location was that it had a dining room space that looked like it belonged in the nineteenth century (see Figure 5.1). I decided

that, since I was working with burials in a Maya household, it would be interesting to play with the idea of housing artifacts within a space we associate more with our modern conception of “home.” Tying with this idea allowed the development of the themes I wanted to discuss in my exhibit. If the installation was going to be placed into a modern American household space, why not delve into issues about private collection and how it relates to the detrimental effects of looting? This way, I could open up a discussion about the reasons why museums, especially those of archaeology, tend to fall short in their display effectiveness.

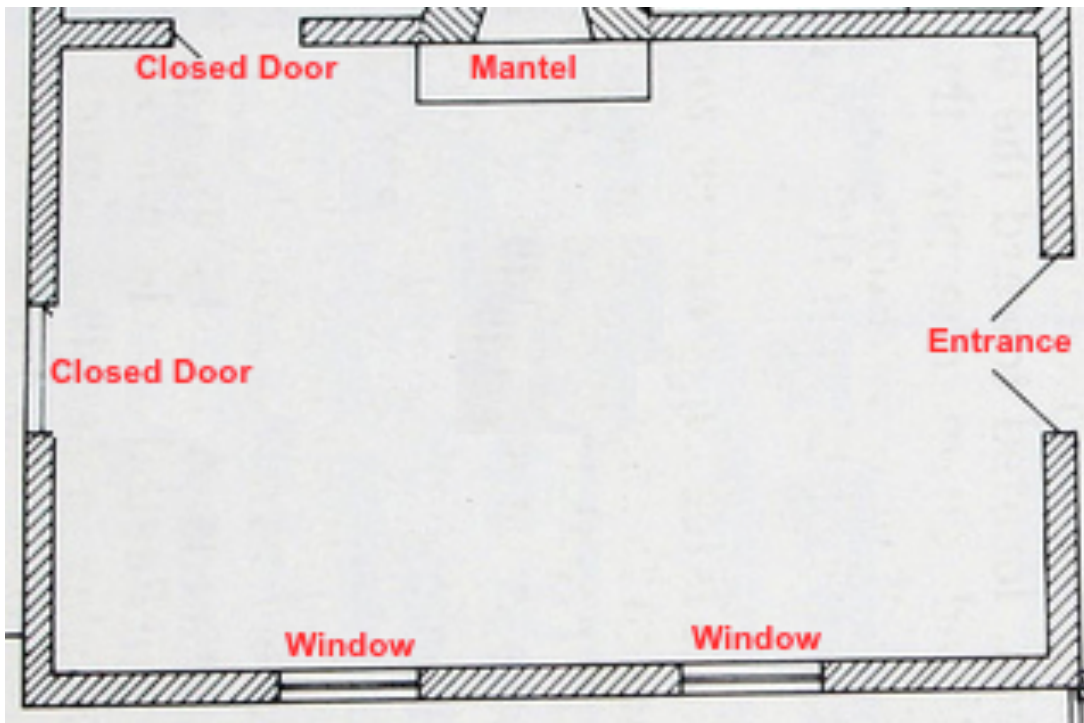


Figure 5.1. Floor plan of the dining room at the Horace Williams House. All structural features of the space are labeled in red.

Once the exhibit space had been chosen, I needed to discover how to adapt my theme to the installation area. Looking at how the walls were divided up by obstructions such as windows or doors, I noticed that there were three useable partitions and two small walls on both sides of the room entrance. After considering several possibilities, I determined that it was best to divide the display thematically into the different stages of the archaeological process: excavation (“Digging Up Clues”), data collection (“Behind the Scenes”), analysis (“Looking at the Data”), interpretation (“Making Sense of it All” and “Do You Agree?”), and presentation (“What’s Wrong with this Picture?”) (see Figure 5.2). Material culture has the potential to be processed and interpreted in a number of ways, and I wanted to extrapolate upon that in the archaeological process (Cameron

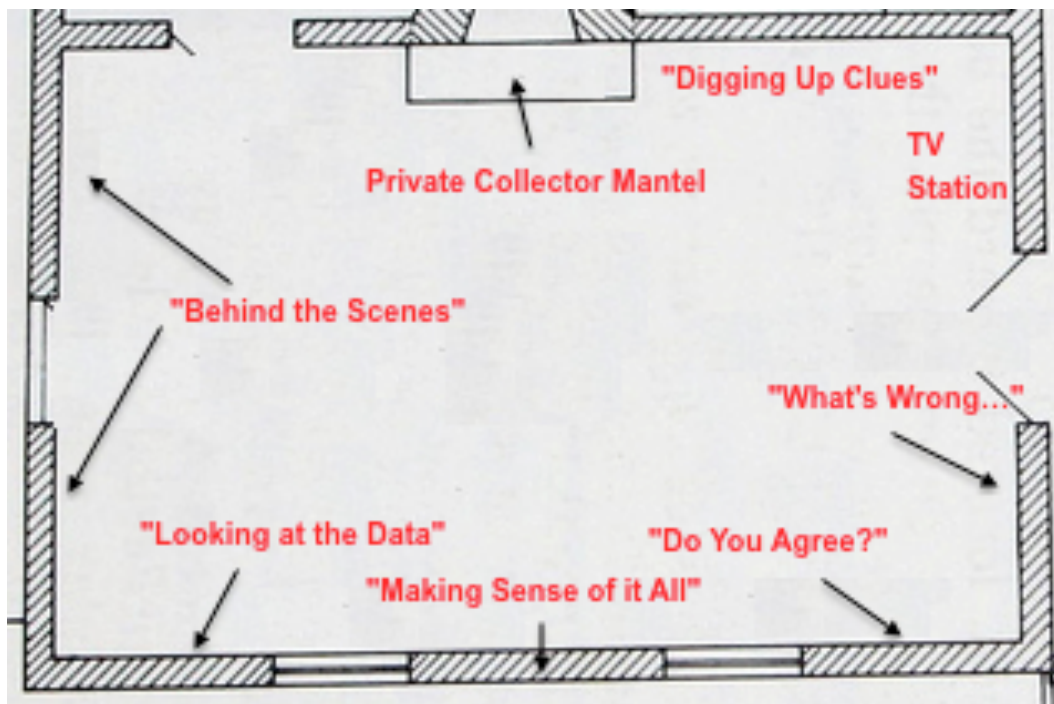


Figure. 5.2. Floor plan of dining room area at the Horace Williams House with display sections labeled.

2005: 227). I also knew that I wanted to exploit different types of media in the exhibit, so I constructed an introductory station for visitors prior to their delving into the archaeological process. This station includes a looping clip on a television placed to the right of the entrance. The television clip frames the exhibit conversation to encourage dialogue and critical thinking among visitors.

Underneath the main themes of the archaeological process and burials at K'axob, I decided to have two sub-themes in the exhibit: a critique of conventional museum practice and a raised awareness of looting. Additionally, I wanted to insert dialogues about the misconceptions of archaeology and Maya peoples in the media. However, I reserved this for the television clip since these discussions would encourage visitors to abandon previous notions prior to delving into the displayed K'axob material. Television screens typically evoke the familiarity of an everyday event, but also encourage visitors to question that familiarity (Brawne 1982: 137). On the topic of looting, however, I wanted to highlight private collectors and how the process of illegal trade is intertwined with the difficulties that museums face in regard to installation. This task would be fairly easy to undertake since the exhibit was essentially being placed in what easily could have been someone's house. By placing the exhibit in a space that I constructed as the home of a private collector, I could claim that private collectors and their illegal acquisition of culture material ultimately controls, affects, and dictates the parameters of a museum display. Museum practice and looting are inevitably intertwined.

The flow of the exhibit was also fairly straightforward given the space dimensions and set-up. Visitors typically enter an exhibit space to the right, so the installation began to the right of the entrance and followed the counterclockwise flow of the room. In order

to encourage this rightward movement, I decided to position the doors of the entrance opening to the right with a directional sign, which still left enough room for visitors to freely enter and leave the exhibit space. If space is modified to suggest an exhibition path, visitors typically follow that route (Brawne 1982: 16). Natural lighting, even though not the best for artifact clarity, was used to emphasize the setting of a private collector's house. Overall, the historic home operators do not allow renovations for light fixtures due to the strict preservation of the location.

Exhibit Title, Labels, and Text

The next detail to consider was the title of the exhibition. I wanted something clever and catchy, but also something that clearly explained the functions of the exhibit to visitors. I decided on "Housed Within" as the primary title because it spoke to the layered nature of the installation. On one hand, it describes the burials that are placed within the Structure 54 household. On the other hand, it echoes the "housed within" effect of the exhibit, where I constructed a private collector's home to encapsulate the Operation 14 material. It also even addresses how contextual information can be "housed within" an object and is only extracted through archaeology. For the subtitle of the exhibit, I chose "a Museum Display Critique and Investigation of a Classic Maya Household at K'axob." Thus, the visitor knew what to expect upon entering the exhibit space and what sorts of issues would be explored.

Next on the list of tasks was to figure out the positioning of photographs and labels in the installation. Since a lot of museums utilize a technique of aligning photographs and labels in a horizontal fashion, I wanted to try something different.

Instead of this horizontal arrangement, I implemented a spiraling directed-flow approach. Spiraling refers to the placement of photographs and labels in small clumps of visual mass so as to promote a dynamic eye movement pattern (see Figure 5.3). Horizontal arrangements do not encourage movement, and thus lose the attention of visitors very quickly. A directed-flow approach refers to the cohesive layout of an exhibit in a manner that is both didactic and well structured (Dean 1994: 55-61). Informational texts in each section of “Housed Within” build on one another, starting with the most fundamental and basic at the beginning.

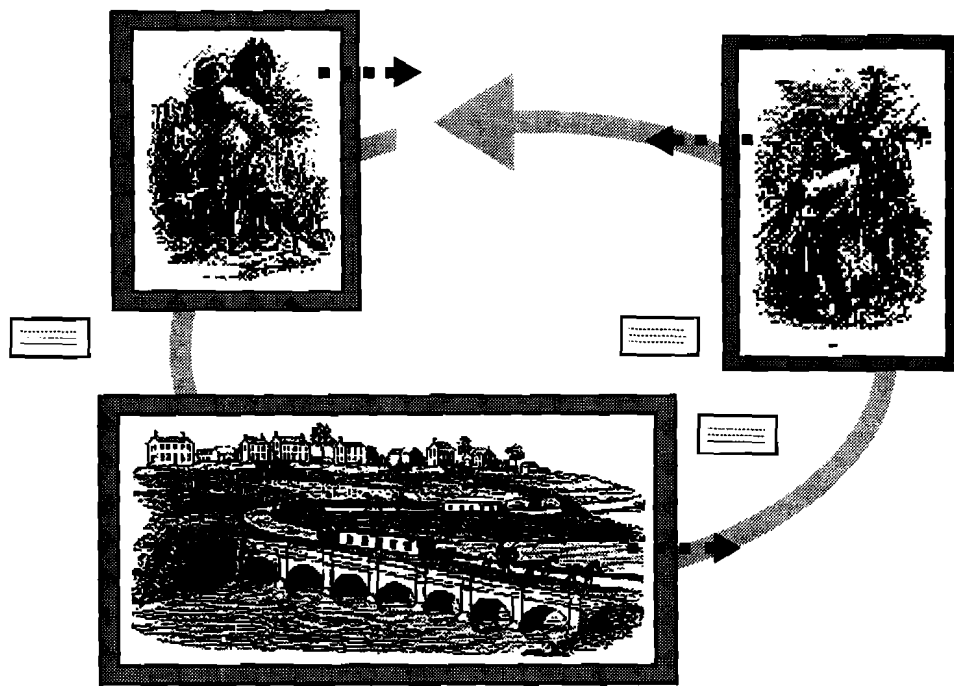


Figure 5.3. Diagram of a typical spiraling design of photographs and paintings.

One of the most daunting tasks a curator must complete is label construction. Not only is it difficult to write succinct, detailed labels, but it also is labor intensive to design

the layout and organization of each individual label. Categorically, labels come in two different types: section panels or group texts, and object labels. Group texts are those that appear at the beginning of each section to explain the subject of that specific section. As a general rule, group texts should not exceed 150 words, begin with a heading, and should unify the section conceptually (Dean 1994: 114). Object labels are the traditional labels found in an exhibit that explain particular objects or art works. These labels serve two functions: to identify the object with basic facts and to provide a small interpretive explanation of the object that relates back to the theme of the section (Dean 1994: 115).

All labels in “Housed Within” are written using several posed questions to spur critical thinking and interaction with the visitors. On a basic level, the label texts are written at an eighth grade reading level and were subjected to the Fry Test. The Fry Test includes selecting a sample passage of about 100 words, counting the number of sentences and syllables, and then placing those numbers on a graph to determine reading ability (Belcher 1993: 163). The labels of the “Housed Within” exhibit fell at the intersection of nine sentences per 100 words and 127 syllables per 100 words, in the upper eighth grade range (see Figure 5.4).

General guidelines given by several museum studies scholars also were followed in the construction of labels. Label font size should never measure less than 18 points and italics should be avoided at all costs (Ambrose and Paine 2012: 124). A sans-serif font is most effective and should be written in black on a white background. The “Housed Within” labels adhere to all of these rules and are written in a Helvetica font style. Color scheme is very basic: black and white. However, the headings of section texts are green and also include two slightly opaque images: a vision serpent wrapping around the

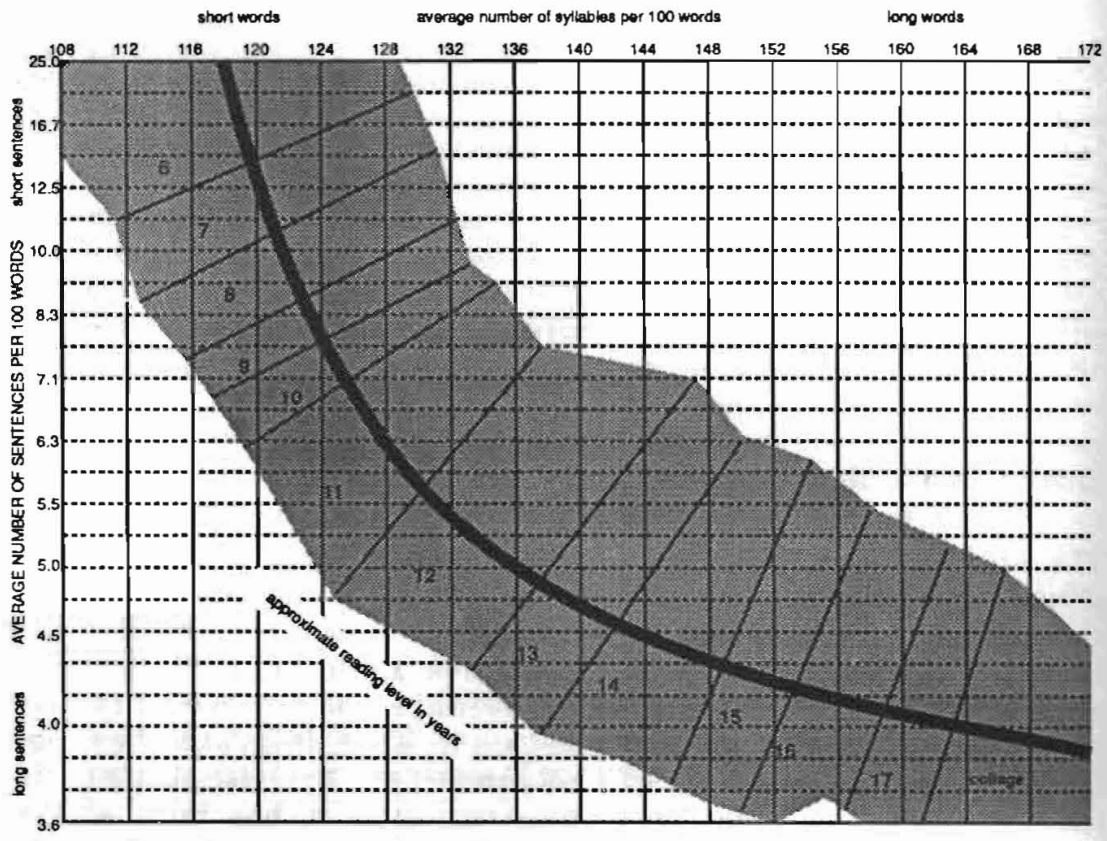


Figure 5.4. The Fry test graph to calculate reading levels by age. The shaded area indicates the region of maximum readability of the test (from Belcher 1993: 166).

bottom right corner and the name “K’axob” in Mayan glyphs (see Figure 5.5). These visual accouterments enhance visual appeal of the labels so as not to bore the visitors with plain texts, the common style most museums gravitate towards. The format of the label writing changes subtly from section to section and is explained in each section’s respective breakdown in this chapter.

Introductory Television Station

The “Housed Within” exhibit begins with an introductory television clip that loops every ten minutes. A television sits on a small surface to the immediate right of the



What's Wrong with this Picture?

Some museums today present artifacts like art objects with minimal information, mainly relying on the object's aesthetic value. Other museums show a ton of information without allowing the visitor to interpret the material. Most museums even display looted items. Private collectors, like Charles Smith, the fictional figure in this display, donate collections they acquired from the black market or looted sites to museums. When an artifact is looted, its context is lost, thus making it difficult for curators to display the wealth of information that could have been uncovered through archaeology.

A museum's principal goal is to educate the public and create a unique, enjoyable visitor experience. Do you think something is missing here? Does this particular case *engage* you? Does this display satisfy your reasons for going to a museum?

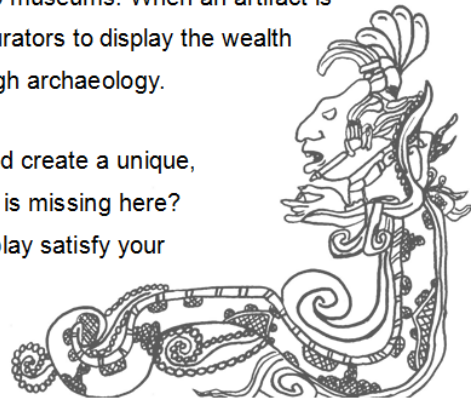


Figure 5.5. Section label from “What’s Wrong with this Picture?”

entryway and a section label is placed in close proximity to explain the purpose of this introductory station to the visitor (see Figure 5.6). Compiled of film clips, screen shots of looted vessels online, and freeware source images, the clip repeats every ten minutes and deals with chosen topics with which I wanted to frame the visitor experience. The length and style of the compilation allows visitors to return to the television if they did not have an opportunity to watch it entirely in the first viewing. The sounds of the clip echo throughout the museum space due to the small size of the room, which also helps

encourage visitors to watch a portion of the clip and return if they desire to see the remaining scenes.

To frame the exhibit, I wanted to insert various scenes and clips that dealt with the sub-themes of the display. Apart from looting and problems with conventional museums, I chose images that spoke to the influences of media. The media are notorious for portraying misconceptions about archaeology and Maya culture. One of the most obvious erroneous perceptions that always comes to mind is the recent “apocalypse” supposedly predicted by ancient Maya peoples. It is true that Maya peoples were well-versed in ideas of mathematics and astronomy, but the media make false assumptions about the intentions of Maya predictions and time recording (Feder 2002: 295-99). Additionally, the media have had to deal with issues of looting, especially in terms of reporting news of illegal trade to public audiences. Most of the time, this correspondence becomes either dramatized or, on the opposite side of the spectrum, hardly acknowledged. The set-up of the television set allows a connection between the images on the screen and those one typically views on their personal televisions at home.

I wanted visitors to be aware of the effects of media on our everyday perceptions of others and their culture. One way is to provide a stimulating part at the beginning of the exhibit, which hopefully will cause visitors to question the presentation of these issues in the media. Theoretically, this allows visitors to entertain questions about looting and media sensationalism as they venture through the rest of the exhibit. By placing the themes of my exhibit up front in an innovative manner, it forms a mental foundation to be built upon during the entirety of the exhibit. The television station thus immediately immerses visitors into the thematic subjects of the exhibit while simultaneously opening



Figure 5.6. Photograph of the introductory television station.

the floor for discussion within the space.

Excavation: “Digging Up Clues”

The first step in the archaeological process is fieldwork. In order to introduce visitors to the entire process of the K’axob project, I needed to creatively immerse them within the excavation. Being that the space was a historic home, it was extremely difficult to conceive of a way to directly involve visitors in the K’axob excavation. The easiest

solution was to base this section off photos from the field and to ask questions of the visitors in the label texts. The first thing that was necessary to include was a map of the archaeological site with a close-up view of the Structure 54 residential compound. This helps to situate the visitor within K'axob and in relation to the different structures of the site.

In addition to a map, I decided to incorporate various photographs of in-situ burial vessels, students working in the field, and the environment of K'axob. Particularly, I chose vessels from Zone 5 (Burial 4) and Zone 35 (Burial 8). These vessels are described in greater detail later on in the exhibit and are displayed in the final section of the installation. These photographs introduce the vessels to the visitor as a means to cohesively tie together the various sections of the exhibit. The inclusion also gives visitors a chance to see how vessels were uncovered at K'axob and how they relate to the interred individuals.

Aside from vessels, I also selected three photographs of archaeologists and students working side by side in the field. One photograph shows a total station in operation, another conveys how archaeologists dig in grids, and the last depicts the photographic recording of features and burials. Alongside these photographs, I chose to insert a photo of the surrounding environment, particularly one that demonstrates the modification of the wetlands into agricultural island fields. I wanted to give visitors a visual sense of how excavation involves students, scholars, volunteers, documentation, and careful scientific recovery. This portrayal of archaeology is framed by the map and the environment photograph to remind visitors of the setting and how archaeology and

the environment are interwoven. Visitors are encouraged to “dig up clues,” hence the title of this section (see Figure 5.7).

Not only do the photographs immerse the visitor into the excavation process; the label texts encourage attendees to consider the imagery displayed and to play the role of an archaeologist. The section label for this portion of the exhibit explicitly asks the visitor to act as an archaeologist and to critically think about the information presented. Labels for the photographs give brief descriptions of archaeological excavation and end with questions that allow visitors to reflect on the photograph and the label text. The idea for this first step is to increase visitor involvement slowly so that it can be more direct in the



Figure 5.7. Photograph of the “Digging Up Clues” section.

following sections. Introducing the visitor slowly to the archaeological process fosters a comfortable environment in which he/she would be more likely to participate later on.

Mantel: “The Home of Charles Smith”

Due to the disruption of the wall space by a historic fireplace with a mantel, I decided to use this part of the space to introduce the theme of looting. The interruption occurs in the perfect location: between the fieldwork and lab work display sections. Looting and illegal trade of antiquities disrupts the flow of the archaeological process, specifically prior to lab work. The term looting can be related to excavation, although unlike archaeological excavation, it is done illegally, unsystematically, and without careful recording. Once items are looted, they are ripped from the archaeological process and do not undergo lab analysis nor systematic recovery. By placing a small display that discusses the issue of looting in between the sections on fieldwork and lab work, I seek to model the disruption that looting creates and how archaeologists lose potential information from stolen artifacts. Looted items do not make it to the lab setting, and thus are devoid of context and context-dependent analysis and interpretation.

The mantel was cleared off and I placed four purchased Maya vessels on top (see Figure 5.8). These vessels are replicas purchased from the National Geographic online store and are very authentic in appearance. In this portion of the exhibit, I decided not to place any labels at all to emphasize that looted artifacts and items lack the typical contextual information. Text is also omitted because the section is meant to appear as a mantel from the house of a private collector and collectors normally do not attach text to their displayed goods. The title for this section, “The Home of Charles Smith,” stresses

the setting of this section. Although the section might be slightly perplexing to the visitor in terms of its placement, I eliminate this confusion by referring back to this mantel and its function in the final section of the installation.



Figure 5.8. Photograph of the Charles Smith mantel.

Lab Work: "Behind the Scenes"

After extensive and systematic excavation, the next step for an archaeologist is to start processing the artifacts in the lab and collecting more raw data, something usually done "Behind the Scenes," as alluded to by the section's title. In order to immerse the visitor in this next step, I decided to recreate a model lab setting. For this section, I set up two different tables covered with items typically found in an archaeological lab: scales, rim profiling tools, rulers, bags, labels, and brushes. (see Figure 5.9). There is no better way to introduce visitors to a subject than to plunge them into a hypothetical setting.

Visitors are encouraged to explore these tables, look at the items not encased in display boxes, and to take on the active role of an archaeologist.

For the material in this section, I wanted to use photographs of analysts from the K'axob project and some of the vessels that are displayed in the final section of the installation. I chose an in-lab photo of Dr. David Garcia, a primarily analyst of lithics from the K'axob project. I also selected formal photographs of three vessels from the burials at Structure 54. The labels next to these vessels are analogous to lab forms, complete with quantitative and qualitative data.

In addition to the photographs, I include actual artifacts on the lab tables encased in acrylic display boxes. Artifacts include vessel rims, a clay bead, and a few fish net



Figure 5.9. Photograph of the “Behind the Scenes” section.

sinkers. I wanted to show visitors that other things accompany burials, such as the clay bead and one of the fish net sinkers. I did not want visitors to leave with the impression that K'axob inhabitants were only producing ceramic vessels. The comparative vessel rims (Sierra Red and Joventud) are indicators of chronology and can be used to date other ceramic vessels. Explaining this fact in the associated label, I wanted visitors to see if they could distinguish similarities between these two identifiable types and the vessels displayed.

In a general sense, labels appear as lab forms and sets of raw data. By giving visitors this kind of information, I attempt to articulate the types of data retrieved in a lab setting and how these are used to interpret archaeological finds. Thus, labels for artifacts on the tables give weights, measurements, and typological information, while also briefly stating the possible functions of the items. I also interspersed zone forms (provenience records) from the excavation on the tables that describe in great detail the burials and construction floors associated with the photographed vessels. I wanted to supply individuals with all the necessary information they would need in order to arrive at conclusions regarding the burial data from Operation 14, but in an innovative way so as to avoid lengthy complicated texts.

Analysis and Interpretation: “Looking at the Data,” “Making Sense of it All,” and “Do You Agree?”

For the third section of the exhibit, I divide the section into three cohesive parts since the windows on the wall to the left of the room split the area into three regions (see Figure 5.10). The first of these regions, entitled “Looking at the Data,” introduces visitors

to the analytical and interpretative nature of archaeology. Once an archaeologist has excavated and tabulated copious quantities of raw data, the next step is to analyze data patterns and arrive at some conclusions. My intention is to provide visitors with supplemental information as a way to facilitate their determinations about the burial practices at Structure 54.

In the first part of the section, I placed a few more photographs of the burials primarily investigated in the exhibit (Burials 2, 7, 8, 9). These burials were selected due to the wide range of data they provide with regards to burial practices. These burials are from different time periods, all contain vessels, and exhibit different types of burial patterns and characteristics. In the preceding parts of the “Housed Within” display, information provided for the visitor is derived from these burials and their associated grave items. For the first part, I chose photographs from Burials 7 and 8 since they are clearly defined and articulated in the visual documentation of the site. These photographs are supported by construction phase plans that allow visitors to make a connection between the actual burial and archaeological documentation on paper and in publications. The final photograph shows the stratigraphy from the western wall of Operation 14 with selected zones and burials outlined for the visitor. Analyzing stratigraphy is fundamental to an archaeologist’s interpretation and I wanted to be sure to include that evidence in the visitor’s own archaeological reasoning process. Labels direct the visitor to look at specific patterns and ask them to reflect on their findings.

The next part of this section is entitled “Making Sense of It All,” a crucial step in which an archaeologist ‘makes sense’ of the data and constructs an interpretation based on substantial evidence. Additional burial photographs and construction plans are



Figure 5.10. Juxtaposed photographs (*from left to right*) of “Looking at the Data,” “Making Sense of it All,” and “Do You Agree?”

provided to the visitor, as well as a variety of burial-associated artifacts. A small raised table in front of this part of the display contains three display boxes that house the plaster reed mat impression from Burial 8, a cached projectile point from Zone 7, and a burial vessel from Burial 7. The plaster fragment and the vessel allow me to make a connection to the ritual practice associated with burial at Structure 54, while the cached projectile is integrated into an interpretation of interments at K’axob as caches for new construction phases. Labels in the second part describe my interpretations detailed in chapter three of this thesis and pull in the displayed photographs, plans, and artifacts as evidence. At the end of the section panel text, I ask the visitor whether they agree with my findings, or if they have differing opinions and thoughts.

However, I wanted to further involve the visitor and harness a higher degree of direct involvement and feedback. For the third part of this analytical section, I create a space in which a visitor can voice his/her opinions and interpretations. This section consists of three items: a section panel text, a large blank poster, and a set of sticky notes. In the section text, I encourage visitors to write down their interpretations or opinions on a sticky note and then attach that note to the blank poster on the wall. Instead of solely having a verbal discussion between visitors in the space at a single point in time, the ability to leave a note opens up textual conversation among visitors who tour the exhibit at different times. This step connects the visitors not only to the exhibit at a given point in time, but also diachronically, exchanging ideas between visitors who normally would not have had any interaction with one another. Furthermore, it allows the visitors to be involved and to create part of the exhibit. The “Housed Within” display is centered on the visitor, so why not ask visitors to make a contribution to the exhibit through fabricating a portion of it?

Presentation: “What’s Wrong with this Picture?”

The last section of the exhibit deals with the final stage in the archaeological process: the presentation of data and interpretations. It is here, in this final section, that I delve into the subthemes of the exhibit one more time, in a way that hopefully will create a “take home” message for visitors. I decided to make my critique of museums evident in this section and to relate the problems with conventional displays to the destructive nature of looting and illegal trade.

The idea of this section is to situate a small display case in front of the wall with a display sign reading, “Cosmopolitan Museum of Art.” Inside the case are four vessels displayed in the fashion of a modern museum exhibit (see Figure 5.11). By calling it the



Figure 5.11. Photograph of the “What’s Wrong with this Picture?” section.

“Cosmopolitan,” I am directly aligning the display case with those found in the Metropolitan Museum of Art in New York. The Metropolitan, and other museums that display archaeological objects, provide very minimal information with regards to artifacts due to the fact that most of the items are acquired indirectly through looting. Although the Metropolitan does not deny their possession of looted artifacts, they still put these items on display with little contextual knowledge attached (see Figure 5.12). Curators

instead rely on the aesthetic value of objects and basic typological characteristics (form, cultural affiliation, style, etc.). A lack of supplemental information alienates the visitor, who leaves the exhibit with very little to no understanding of the object's history of use.

Labels on the displayed items echo the failures of modern museums, containing only basic information such as the type of vessel, the date, and the affiliated region and culture if known. Much like the Metropolitan label in Figure 5.12, this minimal information limits visitors' understandings of the artifact and its context. The main goal of this section is to display vessels that were previously discussed at length in prior sections of the exhibit. Visitors are asked to make the connection and are left questioning why information is so limited. They ultimately ask, "What's Wrong with this Picture?" as indicated in the section's title.

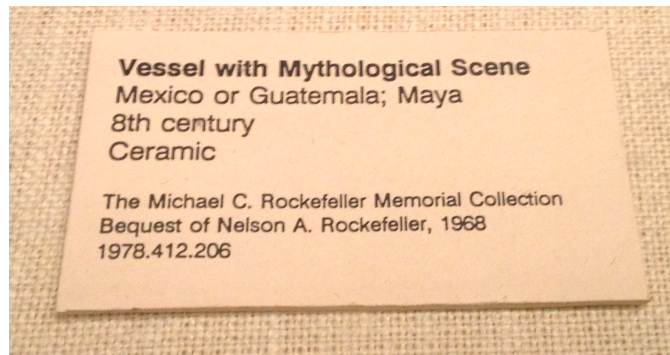


Figure 5.12. Label from the Mesoamerican gallery at the Metropolitan Museum of Art.

To facilitate this scrutiny, I include a section panel that describes the common practice of archaeological museums and how they deal with looted goods, while making references to the "Charles Smith" mantel from earlier in the display. I conclude the text with two reasons for why museums follow this sort of artifact presentation: the museum

curator's design choice to emphasize aesthetic quality rather than contextual knowledge and the effects of looting and private collectors on displays. The way an object is displayed can influence its perceived significance, and with little information in a display that emphasizes aesthetic value, an object's importance is minimized (Pyre 2001: 75). A museum exhibit that displays a balance of aesthetic and contextual information about an object increases the visitor's general knowledge of that object. As a consequence, it enhances the visitor's understanding and appreciation (Maroevic 1995: 27). To make visitors aware of this difference allows them to not only effectively learn something from "Housed Within," but also to apply that knowledge to future attended exhibits.

"Housed Within" and Museum Visitor Experience Theory

Although it is difficult to translate theory into practice, it is necessary to explain how "Housed Within" adheres to Falk's theory in its design and intentions. One of Falk's points for curators to keep in mind when fabricating an installation is the idea that the museum visitor experience begins before the visitor enters the museum space. A visitor comes with preconceived notions and impressions of the exhibit, so the curator must shape those to the best of his/her ability. For the "Housed Within" exhibit, I took advantage of public advertisement via the media. In particular, I initiated a set of press releases that described the exhibit in detail, the goals, and a general sense of what visitors were to expect. In addition to these releases, I created a flyer with similar information and captivating images from the actual exhibit. In doing so, I immediately immersed visitors into the discourse of looting, museum practice, and Maya burials prior to their arrival at the museum. That immersion continues upon entering the museum space with the

introductory television station. I knew that the visitor experience began outside of the museum space and I wanted to facilitate the transition between the exterior part of the experience and the interior through the aid of an innovative television clip.

The next point to consider was Falk's emphasis on the diversity of public audiences, especially with regards to motivations. In chapter 4, I listed and defined five different kinds of visitors who might attend the exhibit: explorer, facilitator, professional/hobbyist, experience seeker, and recharger. For the explorer, the "Housed Within" exhibit holds direct appeal. The installation is designed for visitors to explore the role of an archaeologist and to investigate the burials at Structure 54. This exploration can be conducted in groups, which appeases the facilitator motivation in which an individual visits an exhibit to facilitate the learning of others. "Housed Within" is centered on discussion, both verbal and written, among visitors in the space, so the exhibit can most certainly be tackled as a group activity.

For the professional/lobbyist, I layered the exhibit with subthemes to appeal to those with interests in Maya archaeology and looting. I present my two interpretations of the burials at Structure 54 and build a strong connection between looting and the shortcomings of conventional museum practice. These subjects are designed to be interesting for scholars in the field and those who enter the exhibit with a lot of academic background knowledge in Maya culture and museum studies. For these scholars, it is a new experience to see archaeology come alive, as it is for visitors who enter a museum to seek new exposures. I fashioned the exhibit in a way that is creative and interactive, two qualities which are often missing in modern archaeological displays. The final motivation to consider was the recharger. Visitors who are rechargers enter exhibit spaces to recover

and enjoy a relaxing experience. “Housed Within” is designed with this motivation in mind. Visitors are not bombarded with text; they can slowly and calmly digest the information presented. The exhibit space is very open in the center and visitors can meander from section to section without feeling pressured to move quickly.

Falk’s third point is that personal, physical, and sociocultural backgrounds shape the museum visitor experience. As previously mentioned in this chapter, the exhibit is designed and adapted for audiences with different education levels. In order to appeal to these different backgrounds, I arranged the exhibit in a layered fashion with subsetting themes and issues. The interwoven subthemes (physical factors) of looting and museum studies are designed to appeal to older, more experienced audiences, while the interactive and exploration role is designed for younger audiences. Although all activities can be enjoyed by a spectrum of visitors, I wanted to layer the exhibit to ensure that everyone felt satisfied. This satisfaction is further stimulated by group interactions and discourse between visitors to encourage exploration and discovery (sociocultural factors). If a museum is to be effective, it must seek to reach all participants through an emphasis on installations that are both interactive and investigative (Hood 2004: 155)

Falk’s final point to consider is the visitor’s perception of experience and success. Although exhibit success is difficult to quantify, I composed a few methods of tracking effectiveness indirectly. The first is the number of written responses received on the blank poster near the end of the installation. The more responses, the more comfortable and confident visitors were in the exhibit space, a major goal of the exhibit design. Second, oral feedback and positive comments, especially through media, are also a good indicator of success. However, feedback is not always voiced by each individual visitor.

The final measure of success is the overall attendance of “Housed Within.” A larger audience means that the exhibit reached a greater number of people, which hopefully indicates that the installation is effective. A smaller audience signifies that advertising was ineffective or that the subject matter did not appeal to a wide diversity of people. The composition of the audience is also a notable thing to consider. Museum visitor experience is centered on reaching diverse publics, and if the exhibit fails to do so, then in terms of Falk’s theory, the exhibit is not a success. Although success is not something I can determine, I attempt to facilitate it through the creation of a strong, dynamic, and positive visitor experience in the exhibition space.

Making the Impact Last

Once a museum visitor experience within the museum space has ended, it is important for a curator to cultivate a lasting impression by which that experience and impact lasts into the future. To promote this lasting impact, I conceptualized two different aids. The first is a suggested reading list at the end of the exhibit that the visitor can take home. The reading list has scholarly works on Maya archaeology, looting, and museum studies written for the general public. If the visitor wishes to learn more about the information in the display, he/she can do so through supplemental reading. The second contribution to a lasting impact is the creation of discourse in the actual museum space. Through verbal discussion and written responses, I encourage others to experience a new exposure to archaeological displays and how they should be conceived. I wanted to ensure that visitors, after leaving “Housed Within,” think about these concepts and ideas

prior to attending other museum exhibitions and consider if other displays catered to their specific needs and motivations.

Exhibit designers, especially those with participants of varying educational backgrounds, should feel free to experiment and approach subjects radically (Swain 2007: 245). By referencing modern museums, issues of looting, and encouraging visitors to act as an archaeologist, I radically separate myself from conventional displays. Radical ideas and designs promote critical thinking. Critical thinking and unique experiences create a prolonged impact and cause visitors to challenge the authority of the traditional museum (Witcomb 2003: 129). I wanted to instigate visitors' reflections of what it means to be a visitor, how museums should display information, and why museums have difficulty with exhibition design. I merely organize a space that discusses these ideas; in the end, it is the shared experiences and dialogues of the visitors that ultimately fulfill the primary goals of "Housed Within." The discussion of visitor experience has commenced with this exhibit and I challenge other curators to ensure it persists.

Chapter 6

Conclusion

An effective display in a museum setting is one that articulates the constant involvement of a diverse public audience. Whether the exhibit is about Maya archaeology or 16th century mannerist art in Flanders, a display that poses questions to the visitor, and allows them to critically and innovatively consider new information is most successful in terms of facilitating the museum visitor experience. Visitors are the primary target audience and to intimidate them or ignore their motivations is doing museum service a great injustice. Museums are built on educating the visitor, a goal that is only effective with careful design, consideration, and development.

This thesis has examined two distinct sets of theories relating first to residential burial in the Maya region and second, museum visitor studies. The first part of this thesis analyzed the burials of Structure 54, a dwelling in the northern part of K'axob. After answering a set of research questions about the burial interments at Structure 54, a strong pattern surfaced in the burial practices not only at Operation 14, but also in other residential compounds at K'axob.

Situated in the small Caribbean and Central American country of Belize, the site of K'axob is surrounded by numerous Maya settlements in the New River valley. The landscape of this tropical environment provided inhabitants with myriad resources from proteinaceous food for consumption to woody plants used for construction. Interacting with other sites in the region allowed K'axob inhabitants to acquire goods that were not in the immediate vicinity, causing the community to enter an intraregional hierarchy of sites that controlled these resources (McAnany 2004a). Due to this interaction and trade,

an exchange of ideas and practices occurred among the sites in the New River valley, as evidenced by similarities in site architecture and burial practices (McAnany 2004a; Hammond 1999; Robin 1989). Studying a site like K'axob gives archaeologists a perspective of how smaller villages fit within regional frameworks in the Maya region and the ways in which ideas were exchanged between sites.

Without excavating and studying small settlements like K'axob, it is impossible to truly learn and understand ancient Maya people and their lifestyle. The two thousand year occupational history of K'axob provides great insight into the power dynamics of the New River valley, since it provides information about a site that exists in the poorly understood middle ground of the urban to rural site dichotomy (Iannone and Connell 2003). Because K'axob is a middle-level settlement with both rural and urban characteristics, its data provide knowledge of Maya rural complexity and how other locations in the New River valley developed into urban sites. K'axob thus allows archaeologists a laboratory setting through which they can explore ancient Maya political, social, and economic organization (Iannone and Connell 2003: 6).

In particular, this thesis sought to explore ancient Maya burial practices at K'axob, specifically in a household complex explored through excavation of Operation 14. Structure 54, occupied from the Late Formative through the Classic period, exemplified the northward expansion of the K'axob settlement during the later part of the Formative period (Schulz 1995).

After acquiring and analyzing the data from Operation 14, it was clear that a strong pattern existed in the household's burial practices. The first observation was the deliberate positioning of burials beneath plaster floors prior to new construction phases.

These burials, in most cases, were then capped with a new plaster floor to seal off the remains of the individual. The next obvious pattern was the institution of standardized burial practices at Operation 14 by the Early Witsk'ax complex (early part of the Late Classic period). At Structure 54, during Early Witsk'ax times, inhabitants almost exclusively interred extended adults in crypt-style graves with a head-to-north and feet-to-south body orientation. Additionally, residents included burial vessels with "kill-holes" and other assorted grave goods in these Witsk'ax burials.

In order to make a larger observation, the data patterns from Operation 14 were compared with patterns from Operation 7, Operation 16, and the sites of Cuello and Tikal. Operation 7 was a household compound in the southern part of K'axob that yielded stratigraphy and construction phases that are similar to Operation 14 (McAnany 2004c: 57). This dwelling was occupied from the late K'atabche'k'ax into Early Nohalk'ax times and was constructed in a manner similar to Structure 54 (McAnany 2004c: 57). Despite the paucity of burials from Operation 7, the data do give a sense of an initiation of crypt style graves and the use of grave goods during the Early Nohalk'ax complex (Early Classic period). This is the same period during which similar practices commence at Structure 54.

Operation 16 was placed within a single platform (Structure 68) and also reflects the northward expansion of the K'axob settlement during the Classic period. Although burial practices varied quite a bit in the earlier interments at Operation 16, later construction phases demonstrated a shift towards a homogenization of interment styles and characteristics. At Structure 68, during the Witsk'ax period, body orientation became consistent with a southwest-northeast positioning, grave goods became more frequent,

and simple pits were the most common grave type. At structures 68 and 54, residents buried their dead beneath existing floors prior to new construction and both households standardized burial practices by the Early Witsk'ax period, which is contemporaneous with the Late Classic period. Although both structures homogenized practices, the age and sex of those interred in each structure differed, as did burial practices and styles, indicating residential preferences in terms of interment practices.

Similar patterns occur at Cuello, another site in the regional hierarchy of the New River valley. During the Early Classic period (Nohalk'ax at K'axob), burials at Cuello were placed underneath domicile floors and a standardization of practices was initiated (Wilk and Wilhite 1991: 128). In a sample of 124 Preclassic individuals at Cuello, archaeologists discovered a move towards standardized crypt-style graves, "kill-hole" vessels, and primary inhumation (Robin 1989). Although standardization occurred at a different time at Cuello, there is strong evidence for homogenized burial practices in the New River valley, beginning in the Classic period. Tikal also echoes this transition to standardized mortuary practices during the later part of the Classic period in the central Petén region (Haviland 1985; Ruz Lhuillier 1965).

The major difference between these New River valley sites is distinct regionalized methods of interment styles in terms of burial practices. These differing preferences also trickle down into individual households in which residents of different structures choose various practices to standardize, as seen at the domiciles in K'axob. Although Maya people at these sites began to standardize burial practices at different points during the Classic period, they chose distinct characteristics and styles to homogenize. For Cuello inhabitants, a crypt style grave was favored. For families at Structure 68, simple pits and

southwest-to-northeast body orientations were preferred. At Structure 54, crypt-style graves and a north-to-south body orientation were selected. Burial practices, at least in the New River valley, appear to be residentially dictated and became standardized by the later part of the Classic period.

Not only did this thesis explore the residential selection of burial practices, but I also examined potential reasons for burying the deceased beneath house floors. Three interpretations were given: land legitimization and ancestral preference, burials as caches, and “killing” past occupational histories. Of the three interpretations, I argue that two are more feasible and explain the patterns seen at Structure 54. It is most probable that K’axob inhabitants were interring ancestors beneath plaster floors to create a continued presence that linked residents to the land they occupied (McAnany 1995). Through these interments, household family lines anchored their past to a specific location based on a continuous ancestral presence (Gillepsie 2000: 475; McAnany 1998). Although this is a well-evidenced interpretation, I suggest that burials could serve a dual purpose at K’axob. Interments intruding into old plaster floors prior to new construction phases were a way to dedicate the construction that inhabitants were about to undertake. According to Joyce (2011) and others, burials in the Maya region were historically incorporated into functions of building commemoration. K’axob inhabitants, as evidenced by caches at other household structures and in the modified wetlands, compensated the Earth Lord for disturbing the land through construction. Placing the ancestors and associated vessels into the ground prior to new construction fulfilled this compensation for the future construction phase.

Presenting the analysis and interpretations of excavations conducted at Structure 54 and generating a cohesive and innovative exhibit was a challenge. Interweaving the issues of looting and current archaeological museum practice into the exhibit was an even greater task. Starting with a dining room space in a historic home, I conceptualized a thematic installation that immerses visitors into the archaeological process, while at the same time explaining how looting disrupts archaeological practices and creates difficulties for the display of artifacts and information. Using John Falk's framework for the museum visitor experience, I designed an exhibit that caters to the diversity of public audiences in Chapel Hill, while simultaneously encouraging a dialogue among museum visitors across time and space.

Although my initial goal was to make a unique pleasurable experience for the museum visitor, my thesis developed into much more: it became a medium through which I could construct a lasting impact. As pointed out by Falk, a museum visitor's experience not only occurs within the exhibit setting, but it also transcends the space. The experience begins before the visitor even sets foot inside the museum and continues well after departure, into the next museum space that the visitor attends (Falk 2009). "Housed Within" is not just about creating an original visitor experience, but also about impacting the visitor in a way that instigates a questioning of museum praxis and the role of the visitor in exhibitions. I hope that through this exhibit, the dialogue of revolutionizing current museum traditions and approaches has begun. It is up to both curators and visitors to propagate that change and to inspire innovation.

Limitations

Throughout the development of “Housed Within” and the analysis of Operation 14 mortuary data, I negotiated hurdles and limitations. In terms of the analysis of the burial practices at Operation 14, several limitations inhibited the parameters of the research. In particular, small sample sizes were a large issue. The small sample size of burials from the operations at K’axob that I selected limits the comparative value of the data and does not allow for extensive quantitative and statistical interpretation. Given a larger sample size, a stronger argument could be made for burial practice standardization with residential preferences. Furthermore, this mortuary analysis did not include the entire population of K’axob. The data presented here, although it represents different locations and time periods of the site, only gives a brief glimpse into the past.

Dovetailing this difficulty in interpretation, it is also impossible to clearly assert the intentions of K’axob inhabitants. Although archaeology uncovers data to support interpretations about intent, it is a conjecture of the intangible reasons and purposes of interment practices. Strong correlations and patterns help explain a particular view, but an individual’s intent is not uncovered from a site’s material culture. Furthermore, it is challenging for someone who did not excavate the site to arrive at conclusions regarding residential mortuary practices at K’axob. Limited hands-on experience at the site and dealing with data processed over a decade ago creates an ambitious undertaking. However, there is an upside to this disadvantage. Because most of the data compilation of this material occurred at least ten years ago, I was able to apply new theories and scholarly arguments to the mortuary data in order to analyze and interpret the burial practices from Operation 14.

Apart from the archaeological analysis, there were several limitations with regards to the installation of “Housed Within.” First, funds are a major factor when designing an exhibit. Although I was funded by a small grant from the Dunlevie Honors Undergraduate Research Fund, my budget did not allow for intricate media devices or professional advertisement. A larger source of funding would have promoted more experimentation with presentation and the ability to access a wider audience. In addition to funding, space was another issue. Given the small timeframe of my exhibit planning, it was rather difficult to acquire an adequate-sized space. In the end, the Horace Williams house was an excellent choice, but given more time and perhaps a larger budget, a larger space could have been obtained.

Another limitation was my selection of a Chapel Hill audience. Although Chapel Hill offers diversity and a wide range of backgrounds, it is small compared to public audiences in a metropolis. If the exhibit had been installed in a city where traditional museums are located, a larger audience would have been reached. This would have opened the door for creating a lasting impact for a greater number of people. Success itself was difficult to measure in this exhibit. Museum success and effectiveness is hard to quantify and curators often have to rely on attendance and oral responses as indicators. It would have been helpful to have some sort of system through which success could have been measured, especially since translating theory into practice is such a difficult, and potentially erroneous, task.

Future Research Opportunities

Despite the limitations of this thesis, mortuary analysis of the site and the “Housed Within” installation opened doors for future research potential. The site of K’axob with its residential burial practices has tremendous value for understanding past ideas about mortality and connections with the dead. Because the Operation 14 excavation fits into the realm of household archaeology, it provides an important perspective on rural complexity that cannot be obtained from massive urban centers like Tikal or Uaxactun. The K’axob excavation allows discussion of burial trends and mortuary practice at the village level of Maya society. We are able to learn so much from small sites such as K’axob, especially about daily social practice and lifestyle. Although Welsh (1988) and Haviland (1988) have provided a great deal of information about Maya mortuary practice, these archaeological studies focused primarily on large ceremonial centers. K’axob bridges the gap between rural and urban and provides Maya archaeology with a new perspective. Household archaeology is fundamental to our understanding of past cultures, and K’axob analyses are a testament to that significance, encouraging a greater attention to uncovering daily life within the household.

“Housed Within” also opens up the floor for further discussion and innovation. Through this unique museum experience, the importance of involving the visitor was constantly reiterated. By creating an impactful and unique museum experience for visitors, I hope to encourage museum curators to implement more of these practices and elements in their own design. Through my personal invitation of local curators from the Ackland Art Museum and the North Carolina Museum of Natural Sciences, I wanted to ensure the attendance of museum officials to make an impact. I also publicized in local

newspapers and on social media forums relating to the North Carolina Museums Council, which consists of curators across the state. The initiation of a dialogue about the shortcomings of conventional museum practice stimulates future research opportunities for those interested in museum studies. I myself plan to incorporate museum visitor experience theories and perspectives into my future work as a curator of art and archaeology.

In reality, further research on museum visitor experience requires additional exhibitions and experimentation. Museum praxis is centered on investigation and trial. It is necessary for a curator to investigate various methods to see which designs best propagate the goals of museum visitor experience theory. Ultimately, I have initiated the beginnings of change in museum techniques, but I urge curators to implement the techniques used in “Housed Within” in their own museums that contain different fields, subjects, and audiences. Much the same way that a visitor explores a new museum, curators must also explore idiosyncratic ways to create and foster a rich experience. Trial and error is inevitable for this endeavor to take root.

In the future, I would love to devote energy to other techniques in planning exhibitions. These would include, but are not limited to, visitor interaction with modeled simulations, a greater use of media devices, different spaces (perhaps even outside of the traditional museum setting), and varying levels of audience diversity. Of course, in order for this experimentation to occur, one needs a significant source of funding and time; however, with a little determination, anything is possible. As a final note, I wish to leave the reader with this: whether you are a visitor, a curator, or a newly inducted member of museum culture, the next time you enter an exhibition space, consider how you are

involved, how you are experiencing information, and most importantly, how you can use that awareness to make a difference.

Bibliography

Alexander, Edward P., and Mary Alexander.

- 2008 *Museums in Motion: An Introduction to the History and Functions of Museums*. 2nd edition. Alta Mira Press, Maryland.

Alva, Walter.

- 2001 The Destruction, Looting and Traffic of the Archaeological Heritage of Peru. In *Trade in illicit antiquities: the destruction of the world's archaeological heritage*, edited by Neil Brodie, Jennifer Doole, and Colin Renfrew, pp. 89-96. McDonald Institute for Archaeological Research, Cambridge.

Alivizatou, Marilena.

- 2012 Intangible Heritage and the Museum. In *Intangible Heritage and the Museum: New Perspectives on Cultural Preservation*. Left Coast Press, Walnut Creek, California.

Barker, Alex W.

- 2003 Archaeological Ethics: Museums and Collections. In *Ethical Issues in Archaeology*, edited by Larry J. Zimmerman, Karen D. Vitelli, and Julie Hollowell-Zimmer, pp. 71-84. Alta Mira, Walnut Creek, California.

Bartlett, Mary L. and Patricia A. McAnany.

- 2000 "Crafting" communities: the materialization of Formative Maya identities. In *The Archaeology of Communities*, edited by Marcello A. Canuto and Jason Yaeger, pp. 102-122. Routledge, London.

Becker, Marshall J.

- 1992 Burials as Caches; Caches as Burials: A New Interpretation of the Meaning of Ritual Deposits Among the Classic Period Lowland. In *New Theories on the Ancient Maya*, edited by Elin C. Danien and Robert J. Sharer, pp. 185-196. The University Museum, University of Pennsylvania, Philadelphia.

Belcher, Michael.

- 1993 *Exhibitions in Museums*. Smithsonian Institution Press, Washington, D.C.

Brawne, Michael.

- 1982 *The Museum Interior: Temporary and Permanent Display Techniques*. Architectural Book Publishing Company, New York.

Brodie, Neil, and Jennifer Doole.

- 2001 Illicit Antiquities. In *Trade in illicit antiquities: the destruction of the world's archaeological heritage*, edited by Neil Brodie, Jennifer Doole, and Colin Renfrew, pp. 1-6. McDonald Institute for Archaeological Research, Cambridge.

Brodie, Neil, and David Gill.

- 2003 Looting: An International View. In *Ethical Issues in Archaeology*, edited by Larry J. Zimmerman, Karen D. Vitelli, and Julie Hollowell-Zimmer, pp. 31-44. Alta Mira, Walnut Creek, California.

Cameron, Fiona

- 2005 Museum Collections, Documentation, and Shifting Knowledge Paradigms. In *Reinventing the Museum*, edited by Gail Anderson, pp. 223-238. 2nd ed. Alta Mira, Plymouth, UK.

Crane, Susan A.

- 2000 Curious Cabinets and Imaginary Museums. In *Museums and Memory*, edited by Susan A. Crane, pp. 60-81. University Press, Stanford.

Dean, David.

- 1994 *Museum Exhibition: Theory and Practice*. Routledge, London.

Falk, John H., and Lynn D. Dierking.

- 1992 *The Museum Experience*. Whalesback Books, Washington, D.C.
- 2000 *Learning from Museums: Visitor Experiences and the Making of Meaning*. Alta Mira Press, California.

Falk, John H.

- 2009 *Identity and the Museum Visitor Experience*. Left Coast Press, California.

Feder, Kenneth L.

- 2002 *Frauds, Myths, and Mysteries: Science and Pseudoscience in Archaeology*. 4th edition. McGraw-Hill Mayfield.

Ford, Richard I.

- 1984 Ethics and the Museum Archaeologist. In *Ethics and Values in Archaeology*, edited by Ernestene L. Green, p. 133-142. The Free Press, New York.

Gerstenblith, Patty.

- 2006 Recent Developments in the Legal Protection of Cultural Heritage. In *Archaeology, Cultural Heritage, and the Antiquities Trade*, edited by Neil Brodie, Morag M. Kersel, Christina Luke, and Kathryn Walker Tubb, pp. 68-92. University Press of Florida, Gainesville.

Gilgan, Elizabeth.

- 2001 Looting and the Market for Maya Objects: a Belizean Perspective. In *Trade in illicit antiquities: the destruction of the world's archaeological heritage*, edited by Neil Brodie, Jennifer Doole, and Colin Renfrew, pp. 73-88. McDonald Institute for Archaeological Research, Cambridge.

Gillepsie, Susan D.

- 2000 Rethinking Ancient Maya Social Organization: Replacing "Lineage" with "House". *American Anthropologist* 102 (3): 467-484.

Hammond, Norman.

- 1999 The Genesis of Hierarchy: Mortuary and Offertory Ritual in the Pre-Classic at Cuello, Belize. In *Social Patterns in Pre-Classic Mesoamerica*, edited by David C. Grove and Rosemary A. Joyce, pp. 49-66. Dumbarton Oaks Research Library and Collection, Washington, D.C.

Haviland, William A. et al.

- 1985 *Tikal Report No. 19: Excavations in Small Residential Groups of Tikal: Groups 4F-1 and 4F-2*. The University Museum, University of Pennsylvania, Philadelphia.

Hein, George E.

1998 *Learning in the Museum*. Routledge, London.

Houston, Stephen D., and Takeshi Inomata.

2009 *Cambridge World Archaeology: The Classic Maya*. Cambridge University Press, New York.

Hutson, Scott R.

2010 Materiality: Knowledge, Biography, and the Social Life of Things. In *Dwelling, Identity, and the Maya: Relational Archaeology at Chunchucmil*, pp. 97-134. Alta Mira Press, Plymouth, UK.

Hood, Marilyn G.

2004 Staying Away: Why People Choose Not to Visit Museums. In *Reinventing the Museum: Historical and Contemporary Perspectives on the Paradigm Shift*, edited by Gail Anderson, pp. 150-57. Alta Mira Press.

Iannone, Gyles.

2004 Problems in the Definition and Interpretation of “Minor Centers” in Maya Archaeology with Reference to the Upper Belize Valley. In *The Ancient Maya of the Belize Valley: Half a Century of Archaeological Research*, pp. 273-286. University Press of Florida, Gainesville.

Iannone, Gyles, and Samuel V. Connell.

2003 Perspectives on Ancient Maya Rural Complexity: An Introduction. In *Perspectives on Ancient Maya Rural Complexity*, edited by Gyles Iannone and Samuel V. Connell, pp. 1-6. The Cotsen Institute of Archaeology, UCLA.

Isaza Aizpurúa, Ilean Isel, and Patricia A. McAnany

1999 Adornment and Identity: Shell ornaments from Formative K’axob. *Ancient Mesoamerica* 10: 117-127.

Joyce, Rosemary A.

2011 In the Beginning: The Experience of Residential Burial in Prehispanic Honduras. *Archaeological Papers of the American Anthropological Association*. 20 (1): 33-43.

Kaplan, Flora E.S.

- 1995 Exhibitions as communicative media. In *Museum, Media, Message*, edited by Eilean Hooper Greenhill, pp. 37-58. Routledge, London.

Kersel, Morag M.

- 2006 From the Ground to the Buyer: A Market Analysis of the Trade in Illegal Antiquities. In *Archaeology, Cultural Heritage, and the Antiquities Trade*, edited by Neil Brodie, Morag M. Kersel, Christina Luke, and Kathryn Walker Tubb, pp. 188-205. University Press of Florida, Gainesville.

Kreps, Christina F.

- 2003 Comparative museology and cross-cultural heritage management: emerging paradigms for museological practice. In *Liberating Culture: Cross-cultural perspectives on museums, curation and heritage preservation*. Routledge, London.

López Varela, Sandra.

- 1996 *The K'axob Formative Ceramics: the search for regional integration through a reappraisal of ceramic analysis and classification in northern Belize*. A thesis submitted in partial fulfillment of the requirements for the degree of Ph.D. in Archaeology. University of London.

Macdonald, Sharon.

- 2006 Expanding Museum Studies: An Introduction. In *A Companion to Museum Studies*, edited by Susan Macdonald, pp. 1-12. Blackwell Publishing, Malden, MA.

Maroevic, Ivo.

- 1995 The museum message: between the document and information. In *Museum, Media, Message*, edited by Eilean Hooper Greenhill, pp.24-36. Routledge, London.

McAnany, Patricia.

- 1995 *Living with the Ancestors: Kinship and Kingship in Ancient Maya Society*. University of Texas Press, Austin.

- 1997 K'axob, the 1995 Field Season. In *K'axob: 1995 Interim Report of the 1995 Field Season*, edited by Patricia A. McAnany. Submitted to the Department of Archaeology, Belmopan, Belize.
- 1998 Ancestors and the Classic Built Environment. In *Function and Meaning in Classic Maya Architecture*, edited by S.D. Houston, pp. 271-298. Dumbarton Oaks Research Library and Collection, Washington D.C.
- 2004a Situating K'axob within Formative Period Lowland Maya Archaeology. In *K'axob: Ritual, Work, and Family in an Ancient Maya Village*, edited by Patricia A. McAnany, pp. 1-9. Cotsen Institute of Archaeology, University of California, Los Angeles.
- 2004b Landscapes of K'axob in Deep and Current Time. In *K'axob: Ritual, Work, and Family in an Ancient Maya Village*, edited by Patricia A. McAnany, pp. 11-18. Cotsen Institute of Archaeology, University of California, Los Angeles.
- 2004d Denouement. In *K'axob: Ritual, Work, and Family in an Ancient Maya Village*, edited by Patricia A. McAnany, pp. 415-420. Cotsen Institute of Archaeology, University of California, Los Angeles.

McAnany, Patricia A., and Sandra L. López Varela.

- 1999 Re-creating the Formative Maya Village of K'axob: Chronology, ceramic complexes, and ancestors in architectural context. *Ancient Mesoamerica* 10: 147-168.

McAnany, Patricia A., Rebecca Storey, and Angela K. Lockard.

- 1999 Mortuary Ritual and Family Politics at Formative and Early Classic K'axob, Belize. *Ancient Mesoamerica* 10: 129-146.

McAnany, Patricia, Kimberly A. Berry, and Ben S. Thomas.

- 2003 Wetlands, Rivers, and Caves: Agricultural and Ritual Practice in Two Lowland Maya Landscapes. In *Perspectives on Ancient Maya Rural Complexity*, edited by Gyles Iannone and Samuel V. Connell, pp. 71-81. The Cotsen Institute of Archaeology, UCLA.

Nalda, Enrique.

- 2002 Mexico's archaeological heritage: a convergence and confrontation of interests. In *Illicit Antiquities: The theft of culture and the extinction of archaeology*, edited by Neil Brodie and Kathryn Walker Tubb, pp. 205-227. Routledge, London.

Pearce, Susan M.

- 1990 *Archaeological Curatorship*. Smithsonian Institution Press, Washington, D.C.

Piscitelli, Matthew.

- 2007 *Deciphering the Dead: Mortuary Analysis of Burials from Classic Period K'axob*. A Thesis Submitted in Partial Fulfillment of the Requirements for Independent Work for Distinction. Boston University, Department of Archaeology.

Prye, Elizabeth.

- 2001 *Caring for the Past: Issues in Conservation for Archaeology and Museums*. James & James, London.

Renfrew, Colin.

- 2000 *Loot, Legitimacy and Ownership*. Duckworth, London.
- 2006 Museum Acquisitions: Responsibilities for the Illicit Traffic in Antiquities. In *Archaeology, Cultural Heritage, and the Antiquities Trade*, edited by Neil Brodie, Morag M. Kersel, Christina Luke, and Kathryn Walker Tubb, pp. 245-257. University Press of Florida, Gainesville.

Robin, Cynthia.

- 1989 Preclassic Maya Burials at Cuello, Belize. *BAR International Series* 480. British Archaeological Reports, Oxford.

Ruz Lhuillier, Alberto.

- 1965 Tombs and Funerary Practices in the Maya Lowlands. In *Handbook of Middle American Indians*, vol. 2 part 1, edited by R. Wauchope, pp. 441-461.

Schávelzon, Daniel.

- 2002 What's going on around the corner?: Illegal trade of art and antiquities in Argentina. In *Illicit Antiquities: The theft of culture and the extinction of archaeology*, edited by Neil Brodie and Kathryn Walker Tubb, pp. 228-234. Routledge, London.

Schlereth, Thomas.

- 2004 Collecting Ideas and Artifacts: Common Problems of History Museums and History Texts. In *Museum Studies: An Anthology of Contexts*, edited by Betting Messias Carbonell, pp. 335-347. Blackwell Publishing, Malden, MA.

Schulz, John.

- 1997 Operation 14: Excavations at Structure 54. In *K'axob: 1995 Interim Report of the 1995 Field Season*, edited by Patricia A. McAnany. Submitted to the Department of Archaeology, Belmopan, Belize.

Sharer, Robert J.

- 2009 Maya Religion. In *Daily Life in Maya Civilization*, 2nd edition, pp. 203-226. Greenwood Press, Westport, Connecticut.

Sheehan, Samuel L.

- 2002 *Faunal Analysis of the K'axob Site: Using Diet to Interpret the Maya Lowland Environment*. Senior Honors Thesis, Department of Anthropology, University at Albany, SUNY.

Smith, Charles S.

- 1989 Museums, Artefacts, and Meanings. In *The New Museology*, edited by Peter Vergo, pp. 6-21. Reaktion Books, London.

Society for American Archaeology.

- 1984 Ethics for Archaeology. In *Ethics and Values in Archaeology*, edited by Ernestene L. Green, p. 28. Society for American Archaeology. The Free Press, New York.

Storey, Rebecca.

- 2004 *Ancestors: Bioarchaeology of the Human Remains of K'axob*. In *K'axob: Ritual, Work, and Family in an Ancient Maya Village*, edited by Patricia A. McAnany, pp. 109-130. Cotsen Institute of Archaeology, University of California, Los Angeles.

Storey, Rebecca, and Patricia A. McAnany.

- 2006 *Children of K'axob: Premature Death in a Formative Maya Village*. In *The Social Experience of Childhood in Ancient Mesoamerica*, edited by Traci Ardren and Scott R. Hutson, pp. 53-72. University Press of Colorado, Boulder, CO.

Swain, Hedley.

- 2007 *An Introduction to Museum Archaeology*. Cambridge University Press, New York.

Wilk, Richard R., and Harold L. Wilhite, Jr.

- 1991 *The community of Cuello: patterns of household and settlement change*. In *Cuello: An Early Maya Community in Belize*, edited by Norman Hammond, pp. 118-133. Cambridge University Press, Cambridge.

Witcomb, Andrea.

- 2003 *Imagining the Museum: Beyond the Mausoleum*. Routledge, London.

Viñas, Salvador M.

- 2005 *Contemporary Theory of Conservation*. Elsevier Butterworth-Heinemann, Oxford.

Yanni, Carla.

- 1999 *Museum Vision: Sights Unseen Before*. In *Nature's Museums: Victorian Science and the Architecture of Display*, pp. 14-32. The Johns Hopkins University Press, Baltimore, MD.

Zimmer-Hollowell, Julie.

- 2003 *Digging in the Dirt—Ethics and “Low-End Looting”*. In *Ethical Issues in Archaeology*, edited by Larry J. Zimmerman, Karen D. Vitelli, and Julie Hollowell-Zimmer, pp. 45-56. Alta Mira, Walnut Creek, California.