

IN THE SHADOWS OF THE BIG HOUSES:
EXCAVATIONS AT A NON-ELITE RESIDENTIAL GROUP AT UXBENKÁ, BELIZE

A Thesis by

Amber C. Schrag

B.A., Bethel College, 2003

Submitted to the Department of Anthropology
and the faculty of the Graduate School of
Wichita State University
in partial fulfillment of
the requirements for the degree of
Master of Arts

May 2008

© Copyright 2008 by Schrag

All Rights Reserved

IN THE SHADOWS OF THE BIG HOUSES:
EXCAVATIONS AT A NON-ELITE RESIDENTIAL GROUP AT UXBENKÁ, BELIZE

The following faculty have examined the final copy of this thesis for form and content, and recommend that it be accepted in partial fulfillment of the requirement for the degree of Master of Arts with a major in Anthropology.

Keith Prufer, Committee Chair

David Hughes, Committee Member

Holley Moyes, Committee Member

Salvatore Mazzullo, Committee Member

ACKNOWLEDGMENTS

A research project is not undertaken without help from others. I would like to thank my advisor, Keith Prufer, for his guidance and support. Other individuals who helped me through this process are Jessica Johnston, Lillian Richards, Cindy Stanford, David Hughes, Holley Moyes, Andrew Kindon, Willa Trask, Andre, Romoldo, Francisco, Santos, Brendon Culleton, Matt Stewart, Mark Robinson, Amelia Norton, Shoshaunna Parks and Margaret Reith. I graciously received financial aid through the Delano Maggard Jr. Research Grant, Nancy Berner Funds, Dora Wallace Hodgson Summer Research Award, and the UAP. Funds from the NSF and FAMSI help support the UAP. I would also like to thank the Belize Institute of Archaeology for granting the UAP permission to work at Uxbenká.

ABSTRACT

Households inform us about social relationships in ways public-centered research might exclude. Studies of non-elite settlements also bring attention to the rich diversity that characterized pre-Columbian society. Surprisingly little is known about Maya commoners despite the recent influx of studies that address the residential areas of sites. Even less work of this type has been done in southern Belize where Uxbenká, the site studied, is located. Uxbenká's settlement system is characteristic of Maya sites, and includes residences, ancillary structures, burials, modified landscape features surrounding the household, and related gardens and agricultural areas. The 2007 excavations and analysis of this residential group settlement offer a fundamental component to our basic knowledge of the site. The excavations were conducted to assess the temporal occupation and functional use of space at one non-elite residential group (SG 21) at the site. The data collected are compared with other residential excavations and survey conducted at Uxbenká and with other sites in order to better assess the social variation of the site. Work at SG 21 aids in the development of a more comprehensive and contextual view of the occupation of Uxbenká.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
Research Problem	5
II. BACKGROUND AND LITERATURE REVIEW	8
Settlements	11
Development of Household Archaeology out of Settlement Archaeology	17
Ethnographic and Ethnoarchaeological Contributions	20
Interpretation Theories	23
III. STUDY	27
Introduction	27
Field Methods	31
Materials and Procedures	33
Sub-op 07-6	34
Sub-op 07-7	35
Sub-op 07-15	36
Sub-op 07-16	37
Lab Analysis	39
Results	40
Sub-op 07-6	41
Sub-op 07-7	43
Sub-op 07-15	54
Sub-op 07-16	57
Surface Collections	66
Ceramic Vessel Sherds, Chipped Stone Artifacts and, Exotic Artifacts	67
IV. DISCUSSION	71
The Functionality of Spaces and Structures at SG 21	71
SG 21 Occupation History	88
Comparisons between Tested Settlement Groups at Uxbenká	90
Social Variation at Uxbenká	94
Comparing SG 21 to Other Maya Non-Elite Settlement Groups	97

TABLE OF CONTENTS (continued)

Chapter	Page
V. CONCLUSION	104
REFERENCES	106

LIST OF TABLES

Table	Page
1. Radiocarbon dates from UAP	4
2. Settlement group unit hierarchy	15
3. Artifacts from sub-op 07-6, Unit 194N/-483E (2m ²)	42
4. Artifacts from sub-op 07-7, Unit 204N/-471E (4m ²)	44
5. Artifacts from sub-op 07-7, Unit 201N/-468E (4m ²)	44
6. Artifacts from sub-op 07-7, Unit 204N/-468E and extension (4.72m ²)	45
7. STR 1 burial components	51
8. Artifacts and materials from sub-op 07-7, Unit 204N/-468E and extension, Burial 1	53
9. Artifacts from sub-op 07-15, Unit 191N/-480E (2m ²)	55
10. STR 3 burial components	59
11. Artifacts from sub-op 07-16, Unit 1, 183N/-514E (2m ²)	60
12. Artifacts from sub-op 07-16, Unit 2, 183N/-515E (1m ²)	62
13. Artifacts from sub-op 07-16, Unit 176N/-513E (2m ²)	65
14. Surface Collection from SG 21	66
15. SG 21 Artifacts/m ³ by sub-op (excluding surface collections)	70
16. Nonperishable items commonly associated with Maya dwellings	73
17. UAP settlement dates	87

LIST OF FIGURES

Figure	Page
1. Mesoamerica	8
2. Southern Belize archaeological sites	10
3. Topographic map of Uxbenká	29
4. Topographic map of SG 21	30
5. Looking east from the base of Group F at SG 21	32
6. Surface of SG 21 with structure mounds and Group F	32
7. SG 21 excavations	34
8. Large unifacial chert tool	43
9. STR 1 burial capstones	47
10. STR 1 Feature 1, burial, and Feature 2, ceramic bowl	48
11. STR 1 Feature 1, burial, after some bone and Feature 2, ceramic bowl, removed	49
12. Fragments of STR 1 Feature 2, ceramic bowl	50
13. Shape and curvature profile of Feature 2, ceramic bowl	50
14. Polychrome sherds from STR 1 burial	53
15. Spindle whorl from STR 1 burial, top view	54
16. Spindle whorl from STR 1 burial, side view	54
17. Spindle whorl from STR 1 burial, drawing	54
18. Incised and appliquéd sherd from STR 2	56
19. Incised and appliquéd sherd with face design from STR 2	56

LIST OF FIGURES (continued)

Figure	Page
20. STR 3 Feature 1, burial	58
21. Midden feature in Unit 2, sub-op 07-16	62
22. Sub-op 07-16, Unit 3, stacked-stone feature in south wall profile	63
23. Sub-op 07-16, Unit 3, stacked-stone feature and collapse debris in west wall profile	64
24. Ceramic whistle figurine fragment from sub-op 07-16 surface	67
25. Adze fragment from sub-op 07-16 surface	67
26. Topographic map of SG 21	75
27. Topographic map of SG 23 and SG 24	91

LIST OF ABBREVIATIONS

AMS	Accelerated Mass Spectrometry
STR 1, STR 2 ...	Structure 1, Structure 2 ...
sub-op	Sub-operation
SG	Settlement Group
UAP	Uxbenká Archaeological Project

CHAPTER 1

INTRODUCTION

The core focus of social science inquiry is the intersection of time, space and people (Robin 2001:18). The study of settlements and households sheds light on all three of these core areas because households are a basic and essential unit of most human societies. They are fundamental socioeconomic groups where activities such as production, consumption and reproduction – the passing on of culture – take place, both at the level of individuals and the larger collective social group (Robin 2003:308). Households are also key settings where cultural information is transmitted to future generations, making them ideal loci to study cultural change over time. Household studies are the building blocks for comprehensive settlement community investigations and even grander intra-societal and intra-societal relationship studies.

Much of what we know about the ancient Maya comes from the higher order epigraphic, iconographic, architectural and other archaeological studies of monumental public spaces and elite residences. An advantage to an elite-centered focus is its long research history dating back 150 years. Because it has been a main goal for most ancient Maya archaeology since the discipline began, there exists a good general basis of knowledge on the subject (Boas 1915; Gann 1925, 1928; Stephens 1841, 1843; Thompson 1931, 1954; Wauchope 1934, 1938).

General knowledge for non-elites is sparser and less comprehensive. While elite research is extremely informative, it does not give a balanced picture of the ancient Maya. Most of the ancient Maya conducted the majority of their lives in small residential settings away from

urban site cores. Large public areas were a part of every commoner's lives, but alone they fail to explore the rich diversity that characterized Maya society. In order to obtain a truly complete view of who the ancient Maya were, archaeologists need to study all aspects of their society.

Mayanists have increasingly studied commoners during the last two decades (Ashmore 1981, 1988, 2007; Ashmore and Wilk 1988; Brumfiel 1992; Canuto and Yaeger 2000; Gillespie 2000; Gonlin 2004; Haviland 1988; Hendon 1987; Johnston and Gonlin 1998; Marcus 2004; Robin 1999, 2003; Tourtellot 1988a, 1988b; Webster and Gonlin 1988; Webster et al. 1997; Wilk and Rathje 1982; Yaeger 2000), but generally archaeologists still underemphasize the role of non-elites in ancient Maya society. Despite the current surge in investigating the remains of this segment of society, we still perceive that "only the emergence of elites requires explanation" (Brumfiel 1992:556). As elites emerge and change they transform the culture in ways readily visible in the archaeological record. Examples include building large structures, erecting monuments and recording events in writing. Non-elites often get overlooked in emergence and cultural change scenarios. They are a segment of society that has always been with us. It is almost as if we have taken the commoner population for granted. Brumfiel (1992:556) argues that social change and the emergence of elites transformed non-elites as well. Historical biases in social theory encouraged the study of elites believing they revealed more beneficial information about the society. Non-elites were considered powerless and passive (Robin 1999). More recently, archaeology has focused on the social variation of complex societies.

Another advantage to elite research is its long history. Because it has been a goal for most ancient Maya archaeology since the discipline began, there exists a good general basis of knowledge on the subject. General knowledge for non-elites is sparser and less comprehensive.

Things are looking up in the world of non-elite Maya research. In order to obtain a truly complete view of who the ancient Maya were, archaeologists need to study all aspects of their society.

Uxbenká is the earliest known site in southern Belize settled sometime in the Late Preclassic. The earliest dates from Uxbenká come from the stela plaza, a cave (Kayuko Naj Tunich), and a small settlement group (SG 21) during the first century A.D. (Table 1). Based on radiocarbon dates and carved stela, the ancient Maya occupied the site through at least the eighth century A.D. (Table 1) (Leventhal 1992; Wanyerka 1996). Southern Belize is an agriculturally rich region with easy access to inland and coastal trade routes (Prufer 2005, 2007; Prufer et al. 2006). Uxbenká is not a large site, but is centrally located between several larger polities, including Tikal, Copán, and Caracol suggesting possible economic and political relationships (Prufer 2005, 2007; Prufer et al. 2006).

Research at Uxbenká is focused on three main questions. First, the Uxbenká Archaeological Project (UAP) is interested in how the development of Uxbenká impacted the general development of southern Belize. Research is also focused on answering questions about Uxbenká's interactions with other polities, including the temporal nature of inter-polity relationships and whether or not they changed over time. The third question deals with how and when Uxbenká was settled and by whom. Household archaeology plays an important role in answering the third research question. Specifically, survey and excavation at the non-elite Settlement Group 21 (SG 21) in 2007 provided information about the temporal nature of Uxbenká's occupation and the social variation of the site's ancient inhabitants.

Table 1. Radiocarbon dates from UAP.

Operation	Description	Lab # ¹	$\delta^{13}\text{C}$	\pm	^{14}C age (BP)	\pm	95.4 (2 σ) ²	% ³
Stela Group	Plaza OpA Sub7 L4	33400	-199.7	1.9	1790	20	AD 137- 259	0.8270
							AD 284- 289	0.0090
							AD 291- 323	0.1630
Stela Group	Plaza OpA Sub 6 L3	33401	-183.9	2.0	1635	20	AD 348-368	0.0400
							AD 379-442	0.8150
							AD 452-461	0.0100
							AD 485-531	0.1360
Stela Group	Plaza OpA Sub 4 L4	33404	-198.5	1.8	1775	20	AD 143-151	0.0090
							AD 169-193	0.0370
							AD 210-337	0.9540
Stela Group	Plaza OpA Sub 4 L5	33403	-193.0	2.0	1720	25	AD 251-391	1.0000
Stela Group	Str. A6 Sub 07-3	42805	-190.8	1.3	1700	15	AD 259-294	0.1858
							AD 321-402	0.8142
Stela Group	Str.A4 Sub07-2	42806	-193.0	1.2	1725	15	AD 255-360	0.9016
							AD 362-381	0.0984
Stela Group	Str. A6 Sub 07-3	42807	-192.8	1.1	1720	15	AD 256-304	0.4491
							AD 312-384	0.5509
Stela Group	Str.A1 Sub 07-5	42808	-193.1	1.1	1725	15	AD 255-360	0.9016
							AD 362-381	0.0984
Stela Group	Str. A1 Sub 07-5	42809	-169.1	1.2	1490	15	AD 545-609	1.0000
Stela Group	Str. A1 Sub 07-5	42825	-208.6	1.3	1880	15	AD 73-143	0.8903
							AD 146-175	0.0658
							AD 193-211	0.0439
Settlement	SG21 Str 3 Pit Fea	42810	-156.3	1.2	1365	15	AD 646-671	1.0000
Settlement	SG21 Str 3 burial	42811	-147.0	1.3	1275	15	AD 681-772	1.0000
Settlement	SG21 Str 1 burial	42824	-198.4	1.1	1775	15	AD 179-185	0.0051
							AD 214-264	0.5496
							AD 275-334	0.4454
Settlement	SG23 Str 1 burial	42812	-150.4	1.2	1310	15	AD 660-713	0.7741
							AD 745-767	0.2259
Settlement	SG24 Str 4 copal?	42813	-151.7	1.2	1320	15	AD 657-695	0.8476
							AD 698-707	0.0268
							AD 748-765	0.1255
Ag. Terrace A	ARC2 Buried Soil	36946	-167.5	4.7	1470	50	AD 436-489	0.0823
							AD 513-516	0.0032
							AD 530-659	0.9145
Ag. Terrace B	ARC5 Fill at bedrock	36947	-129.2	2.8	1110	30	AD 880-998	0.9863
							AD 1002-1013	0.0137
KNT Cave	Wooden Canoe?	33402	-205.3	1.7	1845	20	AD 90-101	0.0240
							AD 124-235	0.9760
KNT Cave	Wood beam	42799	-197.7	1.1	1750	15	AD 241-338	1.0000
KNT Cave	Post 8	42800	-170.8	1.1	1505	15	AD 541-601	1.0000
KNT Cave	Post 1	42801	-179.2	1.2	1585	15	AD 427-535	1.0000
KNT Cave	Charcoal from step	42802	-197.1	1.2	1765	15	AD 230-264	0.4013
							AD 273-335	0.5988
KNT Cave	Post 5	42803	-191.5	1.2	1710	15	AD 257-300	0.3193
							AD 317-392	0.6807
KNT Cave	Copal? Resin	42804	-171.5	1.2	1510	15	AD 538-601	1.0000
KNT Cave	Canoe? Outer edge	46295	-195.8	2.3	1750	25	AD 231-359	0.9673
							AD 365-381	0.0326
KNT Cave	Canoe? Inner edge	46296	-206.3	2.4	1855	25	AD 85-230	1.0000

¹ UCIAMS Kerk Carbon Cycle AMS Facility UC Irvine

² Calibrated with Calib 5.0.1, Stuiver, M., and Reimer, P.J., 1993, Radiocarbon, 35, 215-230.

³ Relative area under probability distribution

All results have been corrected for isotopic fractionation according to the conventions of Stuiver and Polach (1977), with $\delta^{13}\text{C}$ values measured on prepared graphite using the AMS spectrometer. These can differ from $\delta^{13}\text{C}$ of the original material, if fractionation occurred during sample graphitization or the AMS measurement, and are not shown.

Research Problem

Residential groups are composed of multiple households, and each household resides in and has a social life that revolves around a house. According to archaeologist Nancy Gonlin (2004:226), “the function and symbol of the house are inseparable.” Studying a household means looking at both the physical entity – the structure, space, and material remains – and the people who occupied it. Household studies are an important part of archaeological research because they inform us about the basic unit of past human societies that monumental, hieroglyphic and palatial city-center research might exclude. Studying non-elite households and settlements is an excellent opportunity to bring attention to the rich diversity that characterized Maya commoners.

Currently, there is little data available on commoner settlements at Uxbenká. Settlement Groups (SG) 21, 23 and 24 represent the first non-elite households excavated at the site. This thesis is primarily concerned with the data of SG 21, located on the periphery of the site core in the shadows of larger architectural groups. Multiple constructions at the settlement indicate it was a residential group consisting of more than one structure (probably a dwelling and ancillary buildings) surrounding a large central patio or courtyard. Because work in this area has been scarce at Uxbenká, my work on this plaza group offered a fundamental component to basic knowledge of the site. It represented the second study of household organization in southern Belize, the first being that of Kindon (2002).

My research gathered and analyzed information about a Classic Maya non-elite settlement at Uxbenká in order to enhance understanding of the prehistoric Maya who lived there. The primary questions I addressed in this research relate to the temporal occupation of

the plaza group and how different aspects of the compound functioned. I also looked at the extent of inferred social variation at Uxbenká and how that compared to other Classic Maya polities.

1. What was the temporal occupation of SG 21? I collected data that allowed me to determine at least part of the length of time SG 21 was occupied. Different dates from SG 21 correlate to the development and use of different parts of Uxbenká. Since the site grew and changed through time, I explored changes in individual structures that may have occurred during the duration of the occupation of the settlement.

2. What was the function of spaces and structures at SG 21? I focused on how the various spaces and components of the plaza group were used, both within and outside of individual structures in the settlement area. I investigated spatial relationships between different material contexts that might indicate different types of activities. Part of the functional analysis also included looking at how the residents of the site adapted to and used resources in their local environment.

3. What could be learned about the social variation of Uxbenká based on excavations and analysis of SG 21? I assessed the social variation of the population of SG 21 and Uxbenká by comparing SG 21 to other settlement groups and other segments of the polity. I also compared SG 21 and Uxbenká to other Classic Maya sites in Mesoamerica. My work so far just begins to unfold Uxbenká's complex social variation, which did not fall into an oversimplified elite/commoner framework.

In Chapter 2, I will discuss the setting and environment of the ancient Maya in Mesoamerica and Uxbenká. I will present background information on household and

settlement research in general and as it applies to Mesoamerica. Household archaeology developed out of settlement archaeology and has been informed by ethnography and ethnoarchaeology. There are various ways to interpret data from Maya households and settlements. I will review some of the benefits and setbacks of a number of theoretical paradigms.

Chapter 3 describes the study of SG 21. I describe my field methods and materials and procedures for each excavation sub-operation. In this section I also discuss what lab analysis was done. This chapter includes results from all excavations and survey of SG 21. This part is divided up by sub-operations and surface collection. Finally, I discuss the artifacts by type group, such as ceramics, chipped stone and exotics.

Chapter 4 is the discussion. Here I elaborate on the functionality of the spaces and structures of SG 21. I also discuss the occupation history of SG 21 and how that compares to other temporal data from Uxbenká. In order to better understand Uxbenká's social variation I compare SG 21 to two other tested settlement groups at Uxbenká, SG 23 and SG 24. I then look at how SG 21 compares to other monumental parts of the site, especially Group F. SG 21 and Group F are very close to one another. In fact Group F towers above SG 21 leaving the non-elite settlement group in the shadows of the big houses. Finally, in Chapter 4, I compare SG 21 to other Maya non-elite settlement groups across Mesoamerica. In Chapter 5, I conclude by restating my research problem, my study and my interpretations.

CHAPTER 2

BACKGROUND AND LITERATURE REVIEW

The ancient Maya occupied an area in Latin American referred to as “Mesoamerica,” which encompasses the present-day Yucatan Peninsula south through Guatemala, Belize, El Salvador and Honduras (Figure 1). The ancestors of the Maya began as simple hunting and gathering bands and gradually developed

into complex polities that reached their height during the Classic Period, which generally lasted from A.D. 250-900. This macroperspective view homogenizes the ancient Maya. The Maya could be divided into two major groups based on geographic location. The Highland Maya lived in the western part of Mesoamerica.



Figure 1. Mesoamerica
(http://upload.wikimedia.org/wikipedia/commons/2/24/Region_Mesoamerica.png)

The Lowland Maya region covers the eastern part of the Yucatan Peninsula – Belize, the Petén and northern Honduras. Both groups share aspects of language derived from a common proto-Mayan spoken over 2000 years ago (Campbell and Kaufman 1985). The Lowland Maya show a certain cultural integrity based on their uniform ancient writing system, generalized architectural forms, plaza organization, and standard cosmologies and symbols that communicated a particular world view to all members of the culture (Demarest 2004; Leventhal 1990, 1992).

The development of Maya civilization is often discussed in terms of a cultural sequence divided into periods. The earliest Paleoindian hunter-gatherer occupation in the region began at least 13,000 years ago and ended c. 7000 B.C. (Coe 2005:26; Demarest 2004:13). During the following Archaic period, hunters, gathers and horticulturalists thrived until c. 2000 B.C. It was during the Preclassic period (c. 2000 B.C. to A.D. 250) when permanent farming villages developed. It was at this time many scholars begin to use the word “Maya” (Coe 2005:26). By the end of the Preclassic, the Maya were living in polities that were more like cities than villages and were constructing large pyramid structures, erecting stone monuments and painting murals with early iconography and writing systems (Coe 2005; Demarest 2004; Schele and Miller 1986). The Classic Period (A.D. 250-900) marked the height of Maya civilization, although the Maya were well on their way to civilization complexity in the Late Preclassic. The Classic period is defined as the interval during which the Lowland Maya erected stone monuments dated in the Long Count. It is often divided into the Early Classic (A.D. 250-600) and the Late Classic (A.D. 600-900) during which ceramic styles changed and there were major economic and political developments. The Terminal Classic (A.D. 800-1000) overlaps the end of the Classic period and the beginning of the Postclassic period. During this time many of the great Maya polities were abandoned in a “collapse” event or multiple events (Coe 2005; Demarest 2004). The dates of the decline in Maya civilization vary extensively blurring the line dividing the Late Classic and Postclassic. Following the collapse, the Postclassic period (A.D. 900/1000-1542) was characterized by shifting centers of population to the northern Yucatán (Demarest 2004:16-17).

The cultural integrity of the ancient Maya across the lowlands is undeniable, but so are the regional differences. The general Maya dating periods discussed above (Preclassic, Classic, etc.) are more applicable to the Petén region in Guatemala than to southern Belize. Based on pottery types, rural elites in southern Belize were still using Preclassic pottery styles until c. A.D. 400 (Prufer, personal communication 2008). The Early Classic period started in the Petén in A.D. 250, but the ancient Maya living in rural southern Belize did not pick up on these standardized forms for another 150 years. By A.D. 400, mainstream Early Classic Petén fine orange wares appear in southern Belize and censer traditions show up after A.D. 500. By the Late Classic, southern Belize ceramics are stylistically similar to those found throughout the Southern Lowlands. Very little is known about the Terminal Classic and the collapse in southern Belize. Based on minimal evidence, the end of the Classic period was probably somewhere between A.D. 780-900, but the collapse may have been as early as A.D. 800 (Prufer 2008).

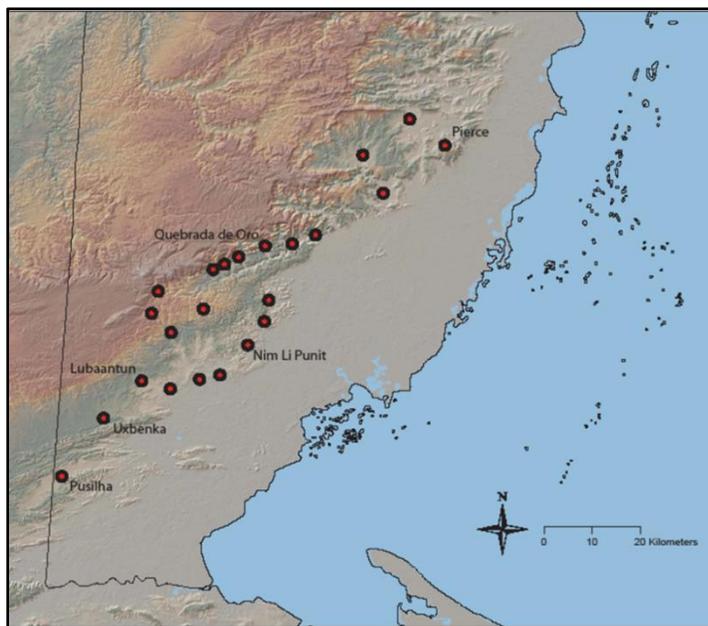


Figure 2. Southern Belize archaeological sites.

The region of present day southern Belize contains a number of ancient Maya sites, or polities. Uxbenká is an ancient Maya polity in the Toledo District close to the Guatemalan border. Other archaeological work has been done in this area at Lubaantun (Hammond

1975), Nim Li Punit (Jamison 1993) and Pusilhá (Braswell 2002) (Figure 2). Early archaeological investigations at Uxbenká (Hammond 1975; Leventhal 1990, 1992) included survey and minimal test excavations. Recent work at Uxbenká attempts to determine the extent of the site and the polity's social, economic and political relationships with other polities in the region and outside the region (Prufer 2005, 2007; Prufer et al. 2006).

Humans occupied parts of Uxbenká during the Preclassic period as early as 1880 ± 15 years BP. For the date, 1880 ± 15 years BP the possible calibrated age range is cal A.D. 73-211 (2 σ) (Table 1). To date, Pusilhá and Uxbenká are the only southern Belize Maya polities that have evidence of an Early Classic occupation (Prufer 2002). Uxbenká remained an inhabited polity and flourished during the Classic period through the late eighth century and early ninth century (Table 1) (Prufer 2005, 2007; Prufer et al. 2006).

Settlements

Settlements studies are important because settlements are the loci of so many activities. "Households embody and underlie the organization of a society at its most basic level" (Ashmore and Wilk 1988:1). When people participate in these activities of production, consumption and reproduction, or the passing on of culture, they leave behind traces of their behaviors. Archaeologists can learn about the people who lived in a certain settlement or household by studying the traces they left behind.

Household archaeology is vital to our understanding of the non-elite segment of the ancient Maya population, but it is a slippery topic to discuss full of terms with convoluted meanings. When contemporary Westerners try to wrap prehistoric settlements into packages,

modern paradigms are inevitably involved. The Western view of what is needed to make a house and what type of people make a “family” or “household” combines social (group, lineage, gender relations, etc.) and physical or tangible (house, garden, building, etc.) aspects of residences. In an attempt to avert this tendency, archaeologists (Ashmore 1981, 2007; Ashmore and Wilk 1988; Haviland 1985; Schortman 1993; Tourtellot 1988a, 1988b; Willey 1981) developed categories of Maya settlement groups and defined terms that separate the social and the physical. Their goal was to avoid erroneous implications about the social organization of a culture when systematically classifying the physical remnants of a settlement.

Ashmore and Wilk (1988:5-6) and Gillespie (2000) defined terms associated with residences in order to distinguish between what is physically observed and what is socially inferred. A *dwelling* is an observed physical structure or area where residential activities – production, consumption and reproduction – take place. A single household could consist of a number of dwellings or many households could be contained in one dwelling. A *house* is also an observed physical aspect of residences. A house is the dwelling or group of dwellings of a single household. A *household* is a social unit with defined membership, such as kinship. A household is a group of people who share in activities including production, consumption, pooling of resources, reproduction, co-residence, and shared ownership. A household may live in one location or be dispersed. A *coresidential group* is a social unit consisting of a group of people who regularly share living quarters. Households and coresidential groups are not necessarily interchangeable because people often live in the same building without sharing in household activities and people who shared household activities might not live at the same location. Examples of when a coresidential group is not a household would be a women’s

menstrual hut, priests' quarters, or a seasonal hunting camp. Archaeologically speaking, households and coresidential groups are inferred entities because the specific people they included are no longer alive.

Current knowledge of Classic Period Maya (A.D. 250-900) commoner settlements is built upon sporadic functional and descriptive inquiry over the past century combined with newer interpretive and multi-disciplinary research since the 1980s (Gonlin 2004:225; Marcus 2004:255-258; Robin 2003:308). Archaeologically, we know Maya commoner homes were often set up in a residential group fashion incorporating a main dwelling for sleeping and other activities plus additional ancillary buildings or features that could have functioned as, kitchens, work platforms for daily subsistence activities and craft specialization, storage areas and, more rarely, ritual structures such as alters or shrines (Gonlin 2004:233-234). This is very similar to what we know ethnographically.

A household is a Maya residential group. Because residences are often groups of structures "houselot" can be used instead of "house" to more accurately describe the multiple structure and space nature of ancient Maya homes (Tourtellot and Sabloff 1989:364; Robin 2003:314). What we know about Maya commoner homes is that they usually incorporating at least one main dwelling for sleeping and other activities plus additional ancillary buildings or features that could have functioned as, kitchens, work platforms for daily subsistence activities and craft specialization, storage areas and, ritual structures such as alters or shrines (Gonlin 2004:233-234). Other non-structure features in a residential group might include hearths, midden areas and kitchen gardens or orchards and burials. The functions of the different

structures and features are relatively consistent, but the inclusion/exclusion and organization of them in a patio group varies between sites and even within a site.

Dwellings and ancillary structures can be single-roomed or have multiple rooms (Marcus 2004, Inomata and Stiver 1998). Structures usually have one of three common shapes: square, rectangular with rounded corners, and apsidal or round (Marcus 2004:258 fig. 11.3). Taking clues from houses depicted in murals and carvings in palaces and public buildings at such sites as Uxmal and Labná, archaeologists have inferred that commoner dwellings were huts or stone buildings with thatched roofs (2004:270, 272 fig. 11.8). Sometimes houses were built up on earthen mounds with stone platforms, but not always (Ashmore 2007:52; Johnston 2004; Tourtellot 1988:345-350).

Non-elite ancient Maya residences share some common architectural and spatial characteristics that are organized in to classificatory groups. Occasionally, an isolated structure constitutes a house all by itself. However, Ashmore (2007:52) and Johnston (2004) note that in settlement surveys what appears to be an isolated structure might have other structures associated with it that are not visible from the surface. If other structures were covered in dense vegetation, not built up on mounds, or had just sunk beneath the surface it would be possible to miss them in a surface survey.

Because residences are often a group of structures, Ashmore (1981, 2007:52-54) developed a site unit hierarchy based on the size and number of structures in a settlement group (Table 2). *Informal groups* are made up of several structures, usually six or fewer, at a single location. The structures are unbounded or unorganized around a central space. They are associated together because they are closer to each other than to any other structures. *Patio*

groups, on the other hand are six or fewer structures that share an ambient space referred to as a patio. In his report on Quiriguá, Schortman (1993:9) described a plaza as “a space defined on two or more sides by construction.” Patio groups can be very tightly bound entities or they can be more loosely organized. SG 21, the focus of my research at Uxbenká, is more loosely organized. While the space between visible structures at SG 21 is spread out and the open patio relatively large, the buildings are spatially associated with each other classifying SG 21 as a patio group (Ashmore 2007). SG 21 is definitely a bounded settlement group with steep hill slopes separating it from other groups of structures. A patio group is the same concept as Thompson’s (1931) *plazuela*. Patio groups are also compatible with Seibal’s *patio units* (Tourtellot 1988) and Tikal’s *single-plaza residential units* (Haviland 1985). Many sites have patio groups that have plastered plazas. The open plaza area of SG 21 did not show evidence of plastering. Unplastered plazas were also common among small-structure patio groups at Quiriguá where the plaza surface was probably tamped earth (Schortman 1993:161-162).

Table 2. Settlement group unit hierarchy.

Single Structures	
Isolated Structures	Single structure not associated with other structures in a group
Groups	
Informal Groups	Several structures, usually six or fewer, at a single location
Patio Groups	Six or fewer structures that share an ambient space referred to as a patio
Clusters	
Informal Clusters	Aggregates of six or more individual structures with no patio organization
Homogenous Patio Cluster	Aggregate of multiple patio groups with no apparent differentiation among groups
Structure-Focused Patio Cluster	Collection of patio groups with at least one special purpose or focal structure
Group-Focused Patio Cluster	Multiple patio groups with a surrounding cluster of other structures and/or patio groups

In addition to *isolated structures, informal groups* and *patio groups*, Ashmore (1981, 2007:52-54) proposed three other labels for sites with increasing complexity. The third level of residential settlement organization is clusters composed of several group units. *Informal clusters* are aggregates of six or more individual structures with no patio organization. A *homogenous patio cluster* is an aggregate of multiple patio groups with no apparent differentiation among groups. The next step up is the *structure-focused patio cluster*. This class consists of a collection of patio groups with at least one special purpose or focal structure. A *group-focused patio cluster* consists of multiple patio groups with a surrounding cluster of other structures and/or patio groups. These last four classes in Ashmore's (2007) settlement site hierarchy are beyond the focus of this investigation.

While these terms and categories provide archaeologists a way to handle and compare ancient Maya residences, they can also be problematic. Creating a residential space and structure typology forces archaeologists to pigeon-hole settlement groups and put them in a category in which they might not belong. It can also lead to "cut-and-paste" interpretations. If a fieldworker comes across a certain structural setup that matches one or many from another site then he or she is likely to automatically interpret the new site in the same way not looking at the new site in its own subjectivity and individuality. Despite archaeologists' desires to separate the social and physical, there are relationships between the two and in real-life settlement situations the two aspects of a household are inextricably tied to each other. For example, where a textile production center is located depends on who in the group does the weaving and what sort of social mores surround weaving. Studying households will always

combine studying “the function and symbol of the house” (Gonlin 2004:226) – the physical and social cannot be completely separated.

Development of Household Archaeology out of Settlement Archaeology

Since the late 1980s non-elite households have gotten increasing publicity in Mesoamerican archaeology. Much of this can be attributed to massive settlement surveys. Gordon Willey developed settlement survey models in the 1950s that were utilized for decades following and are still used today (Ashmore 2007; Willey 1953). Settlement archaeology seeks to find patterns that take into account the complete disposition of ancient Maya remains over the landscape (Ashmore and Willey 1981:3). Remains include buildings, associated habitation debris, and landform modifications attributable to man. Because settlement pattern studies were so comprehensive, they informed archaeologists of the wealth of residential sites and popularized broad household archaeological investigation. Settlement archaeology merely recognizes the presence of non-elite Maya dwellings, household archaeology recognizes the complex social diversity of the ancient Maya. It balances the study of elites with poor peasants and recognizes all who lie between those poles (Ashmore 2007:12).

Where Ashmore (2007: 5-6) argues that settlement archaeology grew out of an interest in processual archaeology, Robin (2003:308) proposes that specific household archaeology studies increased since the 1980s with the advent and proliferation of symbolic and interpretive (or post-processual) theoretical approaches. Processual research designs ask how, why, and through what dynamic processes cultures endured through time (Binford 1962). Processual archaeologists sought to understand the complex and variable organization of each site.

Eventually, archaeologists became interested in what sort of symbolic meaning could be gathered about commoner's culture and daily lives from the artifacts and built environment they left behind. Post-processualists, like Ian Hodder (1985) and Elizabeth Brumfiel (1992) propose that the structures and artifacts associated with houses encode cultural meanings that inform researchers about the everyday life of ordinary people. Material objects communicate cultural meaning through activity, spatial and practice patterns.

Behavioral archaeology has also played an important role in the development of household archaeology. Behavioral archaeologists, such as Michael Schiffer (1972), propose that interpreting site and artifact formation processes of non-elite residences informs archaeologists about the behaviors of the people who lived there. Diachronic behavioral studies moved archaeology past synchronic functionalism. Behavioral studies focused on the activities of past peoples. Post-processual studies built upon behaviorist ideas, looking at more than an activity. Post-processualists linked the static material record to dynamic past behavior in ways that took into account and explained human variation, power and hegemony, individual identity and group identity (Johnston and Gonlin 1998:156, Brumfiel 1992). Contemporary household studies are rarely influenced by a single theory or paradigm. They combine past techniques and theories with modern approaches that cover three major areas – the social (demographic unit), the material (buildings, activity areas and possessions), and the behavioral (the activities it performs) (Ashmore 2007:100; Wlik and Rathje 1982: 618).

Key figures in early Maya archaeology paved the way for contemporary household archaeology. Thomas Gann was such a figure. He found small rectangular house mounds at Lubaantun located less than 15 km from Uxbenká (Gann 1925). He was not interested in the

details of their construction, but reported the size and height of two of them. Perforated pottery clay head-dress figurines were some of the interesting artifacts he found in the two mounds. These were associated with households, specifically household ritual (Halperin 2007). Gann (1925) also uncovered a subfloor burial of a female lying extended. Three years later Gann (1928) reported on seven mounds he excavated at Pusilhá. He thought some of them were substructures, or stone platforms, that served as a base for perishable wooden and thatch houses.

J. Eric S. Thompson was another early figure in Maya archaeology who dipped into household archaeology. He was best known for his Carnegie Institution palatial city-center projects and work on deciphering the Maya calendar (Demarest 2004). While his own upper class position biased his elitist focused interpretation of ancient Maya culture, he was one of the first archaeologists to explore smaller sites exposing a segment of the population those before him overlooked. It was Thompson (1931) who coined the term “plazuelas” in reference to house mounds around a central plaza area at San Jose, British Honduras (now Belize). We are now certain he found commoner settlements, but at the time Thompson was skeptical because he thought the low platforms, patio walls and amount of plastering would have been too much of a labor investment for non-elites (Wauchope 1934).

In the early twentieth century, other small mounds were excavated at numerous sites (Wauchope 1934). Copán, Quiriguá, Labna, Uaxac Canal all had similar looking house mounds and comparable artifact assemblages. Archaeologists found obsidian blades, ceramic sherds, whole ceramic vessels, projectile points, hearths and scattered sub floor burials. The only major difference between the sites was the later Postclassic houses in the Yucatan were oval shaped

instead of rectangular. Robert Wauchope realized that most archaeological expeditions devoted their time and interests to more spectacular urban and religious centers while little attention had been given to “the study of the mode of living of the vast majority of the Maya people” (Wauchope 1934: 113). Despite Wauchope’s public call for more non-elite archaeological research there is still no clear general picture of Maya commoners (Webster and Gonlin 1988). In 1932 Wauchope (1934) excavated five house mounds at Uaxactun in Guatemala in 1932. Each mound had limestone substructure. Three of them were terraced and Wauchope believed the lower levels were porches that ran the length of the structure, much like the rural Maya houses of his day. The floors were either plastered or stamped earth. One of the houses had a low stone wall that Wauchope thought was a base for wooden walls. A thatch roof could have been placed on top of the wooden walls or the roof could have been set right on top of the stone wall, making for a shallow ceiling near the walls. The artifacts Wauchope found were implements for household use, hunting, construction and spinning.

Ethnographic and Ethnoarchaeological Contributions

Wauchope was really one of the first archaeologists to combine ethnographic research with his archaeological excavations by comparing what we found at Uaxactun to modern rural Maya houses (Ashmore and Wilk 1988). Ethnoarchaeology is especially useful where the cultural descendents of the ancient population still live in the same region, such as the Maya in Mesoamerica. Wauchope was mostly descriptive, but later ethnoarchaeological pioneers (Binford 1978) linked observations about the archaeological record in the present with inferences about the behavior that produced it.

Ethnographic studies of modern Maya households help archaeologists the most in non-elite household and settlement studies. Ethnography has allowed Mayanists to study both the *house* and *household*. A house is the physical entity found archaeologically, while a household is a group of people with some sort of defined membership observed ethnographically. Using ethnography, archaeologists can make inferences about prehistoric households that are based on the descendant cultures of the ancient Maya (Gillespie 2000; Wilk and Rathje 1982). Archaeologists use the ethnographic record to infer dwelling shapes, sizes and overall appearance. They also make inferences about social and behavioral aspects of the ancient Maya. For the present Maya, and likely the ancient Maya, members of a household reside in and have a social life that revolves around a house comprised of a single or multiple structures and any extramural space. Contemporary ethnographic research and records from the time of the Spanish conquest are valuable supplements to the archaeological record.

Bishop de Landa wrote an ethnographic account, *Relación de las Coasas de Yucatán*, of the Maya of the Yucatán in the sixteenth century, shortly after the Spanish conquest began. In his account he described residences in a village setting. The “most important people” lived near the center of town and the non-elites lived on the outskirts (Tozzer 1941:62). Both elite and non-elite houses were often built of wood (1941:51, 85, 86, 171). They roofed their houses with palm leaves. Houses were divided into two sections by a wall with beds in the back and the front was whitened with lime (1941:86). Wealthier residents had murals painted on the whitened walls. Interestingly, Julia Hendon’s (1992) research at Copan showed that wealthier inhabitants decorated their houses more often and more elaborately than poorer ones. Tozzer (1941:130) also mentioned the Maya buried their relatives inside or in the rear of their houses.

More contemporary ethnographic interpretation of Maya houses goes beyond simple description. The physical house and the social unit are interconnected. Households are a microcosm that represents “the conjunction of the concrete/visible and the immaterial/invisible components of life” (Gillespie 2000:139). Modern materials have influenced the contemporary Maya, but despite minimal variation in overall form (rectilinear or oval shaped), shape of the roof and the building materials, the houses of today and the past share great similarities (2000:140). Large wooden posts support the structure and roof. The walls are made of wood and sometimes covered with stucco. Furnishings consist of beds, tables and stools or chairs. Close by are ancillary structures, such as kitchens, sweat houses, storehouses, shrines, animal pens, gardens and extra dwellings (2000:140). People still bury their dead under or very near their homes. The arrangement of homes around a central activity area or patio was common prehistorically and historically (Watanabe 1990). These house groups, also found archaeologically, are presumed to have been inhabited by people who had a certain identity and association with a single place over many generations (Gillespie 2000:141).

While a lot of generalizations can be made about non-elite Maya settlements based on ethnological research and comprehensive archaeological studies, there is still inter-site and intra-site variation that should not be overlooked in order to make the generalizations fit all the Maya. There is variation in the physical layouts of structures and extramural space in Classic Maya residential groups. In a case study of household arrangements from four Classic Maya sites (Copan, Cerén, Tikal and Cobá), Nancy Gonlin found more similarities than differences in the distribution of components of residential compounds (2004:233). When multiple structures are found in a residential group, at least some of them are often situated around a central patio

or courtyard (Marcus 2004:257, 259 fig. 11.4, 267 fig. 11.5). These patio groups were the main focus of domestic life. Structures around a plaza could include a dwelling, altar and kitchen with a storage area or kitchen garden in the periphery. There could even be two dwellings and a kitchen or two dwellings and a storage area with no separate kitchen. The functions of the different structures are relatively consistent, but the inclusion/exclusion and organization of the structures in a plaza group varies between sites and even within a site.

In addition to generalizations about the material remains of settlement groups and their functions, archaeologists also use types of categories of material remains to make generalizations about the social status of the Maya. Over the last century in Mesoamerican archaeology a dichotomous elite/commoner interpretive framework developed. Yaeger (2005:25) and Ashmore (2007:6) suggest this might not be the right way to look at the social stratification of the ancient Maya. Most of the evidence actually points to multiple levels of wealth, status and power (Ashmore 2007:6). SG 21 at Uxbenká is clearly not an elite settlement group. With that in mind, all analysis done on the site was conducted assuming its ancient inhabitants had some level of non-elite status, but whether they were at the bottom of the social scale or more middle class will not be concluded until more excavations are undertaken at Uxbenká.

Interpretation Theories

To this day, there are multiple theoretical approaches to research of ancient non-elite Maya residences. Johnston and Gonlin (1998) highlight three theoretical perspectives through which to interpret non-elite residences. The first approach is cultural. It focuses on “the house

as an artifact encoded with generative meaning” (1998:143). The cultural perspective is interested in how power and hegemony were played out between gender, age and status. A problem of this approach is that we cannot be sure how well the symbolic ideals of the common ancient Maya reflected their real behaviors and social organization (1998:147).

A second, functional approach, “focuses on the house as an artifact endowed with social organizational meaning” (Johnston and Gonlin 1998:143). It attaches functionality to material remains. This more typological approach has historically appealed to Mayanists because it allows them to identify houses as functional units often from surface survey alone (1998:151). Unfortunately, there are some assumptions functionalists take for granted that have been proven incorrect (1998:153-155). The first assumption, that families occupy houses is confusing because we do not know what made up a “family” and what constituted a “house.” The second assumption, that house form reflects family form, is not an inherently stable rule found in all societies. The third assumption is that artifacts found on the floors of house structures remained in context through time. We cannot be sure what events transformed the nature of cultural deposits. A functional approach, however, can be useful, especially in the initial stages of house description and identification. After one makes sense of the structures and artifacts in a group and eventually labels them “residential” more in depth analysis and interpretation can take place.

Johnston and Gonlin (1998) view the social approach as the third avenue through which to interpret ancient Maya commoner residences. The social approach “focuses on the house and its immediate surroundings to investigate the household (those who occupied the house), defined as a basic unit of socioeconomic adaptation” (1998:143). The functional approach

examines the house and its use, while the social approach investigates the household as a group of people who share tasks of production and consumption (1998:156). The social approach has hints of Marxism and ecological anthropology. Johnston and Gonlin (1998:171-172) approve of the social approach the most, but they do admit that each interpretive paradigm has uses and benefits for Mayanists.

Yaeger (2000) sees two main approaches to household archaeology, instead of three. The behavioralist focus is on the human activities associated with households. Activities in both structures and spaces are important to this approach. Behavioralists are interested in daily and periodic habits or practice that result in production, consumption and reproduction – the passing on of culture and ideas. Behavioralists, such as Schiffer (1972, 1987, 1995, 1996, 1999) look for what sort of behaviors or activities led to what sort of artifacts and features and how the location of artifacts and features relates to both human and natural behaviors. The built-environment approach focuses on the architecture of the structures in a settlement and how the people who lived there culturally created a place and identity. Instead of focusing on spaces and buildings as units of analysis, built-environmentalists look at places as culturally constructed space. The built-environment approach investigates such topics as social relationships, socioeconomic organization and political organization. It resembles Johnston's and Gonlin's (1998) "social approach" mentioned above. Most Mesoamerican archaeology is motivated by the behavioral approach (Ashmore and Wilk 1988; Wilk and Rathje 1982, Yaeger 2000). This thesis uses both kinds of approaches. Behaviorally, I looked at what people who lived in a particular settlement group were doing and where. Socially, I looked at the

relationships between the people who lived in the settlement group and those who occupied other parts of Uxbenká.

CHAPTER 3

STUDY

Introduction

The archaeological record is a palimpsest of activities, both human and non-human and spanning time from artifact and feature deposition until the present. Research at SG 21 is founded on the principal that spatial patterns often reflect the behavioral and ideational patterns of the people who occupied the site. The ancient Maya's activities left behind archaeologically visible spaces and tangible materials allowing archaeologists to infer what people did and where. To be sure, these behavioral patterns are conditioned by natural and cultural transformation processes that modify the original patterns over time (Schiffer 1972). The archaeological record of SG 21 is itself a production, produced by transformation processes over the past 1000-2000 years. All analysis of the settlement group must recognize that the remnants of SG 21 are not perfect pictures what it used to be. With that in mind, research at SG 21 revealed real and pertinent information about the ancient Maya who once lived there. Data recovered from SG 21 was used to determine its identity as a non-elite settlement group. Within the group, certain artifacts and features revealed what sort of activities the ancient Maya participated in at SG 21. Recovered charcoal and, to some extent pottery sherds, were used to determine the temporal occupation of the settlement and how those dates compare to other dated parts of Uxbenká. Data from SG 21 also revealed information about the social variation of Uxbenká. Previous work at the site had been done in the core leaving the non-elite segment of

the population under evaluated. Now that SG 21, SG 23 and SG 24 have been excavated we can begin to assess the complex social variation of Uxbenká.

In addition to structures and spaces, the artifacts and features in non-elite homes inform us about the ordinary Maya (Webster and Gonlin 1988). Common features found in non-elite Maya settlements are hearths, middens and burials. Basic artifact assemblages for domestic use are ceramic vessels, particularly those of the domestic utilitarian design over those of ritual or ceremonial function. Manos and metates were used to grind substances such as corn. Chipped stone tools made of chert and obsidian were common, especially broken or very used pieces. Obsidian was usually made into prismatic blades for cutting or slicing. There could be celts, axes or adzes and hammerstones. Exotic goods might be present, but probably in small quantities.

This study was set up to examine a small settlement group at Uxbenká. In 2006, the Uxbenká Archaeological Project (UAP) conducted a wider periphery settlement survey to get a better feel for the extent of settlements at Uxbenká, but did not do any settlement excavation. Most of the archaeological research at Uxbenká has been focused on the site core, but residential settlements were part of the 2007 excavations.

Uxbenká is situated in a major limestone landform of southern Belize that rises from c. 100-800m in elevation (Hammond 1975:11). The Cretaceous limestones and the high rainfall give rise to a rounded but steep topographic landscape (Hammond 1975:17). This karstic limestone landscape provided the ancient Maya with excellent building materials. The main drainage basin for the immediate area around Uxbenká is the Rio Blanco (Hammond 1975). Uxbenká and the surrounding region have some of the richest soils in the Maya lowlands which

would have been very important for growing the crops necessary to sustain the population of the site (Wright et al. 1959).

The site of Uxbenká is spread out over a number of ridges and hilltops (Figure 3). The site core consists of three main clusters of architecture, each located on a hill top or ridge. The site core is spread out over 1100 m in a wide arc (Prufer 2007; Prufer et al. 2006). The first cluster is Group L and Group A, or the Stelae Plaza, which contains the earliest dated materials to date. The second cluster is Groups B-F, four conjoined plaza groups. Groups B and D both contain ballcourts. Group G is the largest plaza group and it makes up the third cluster.

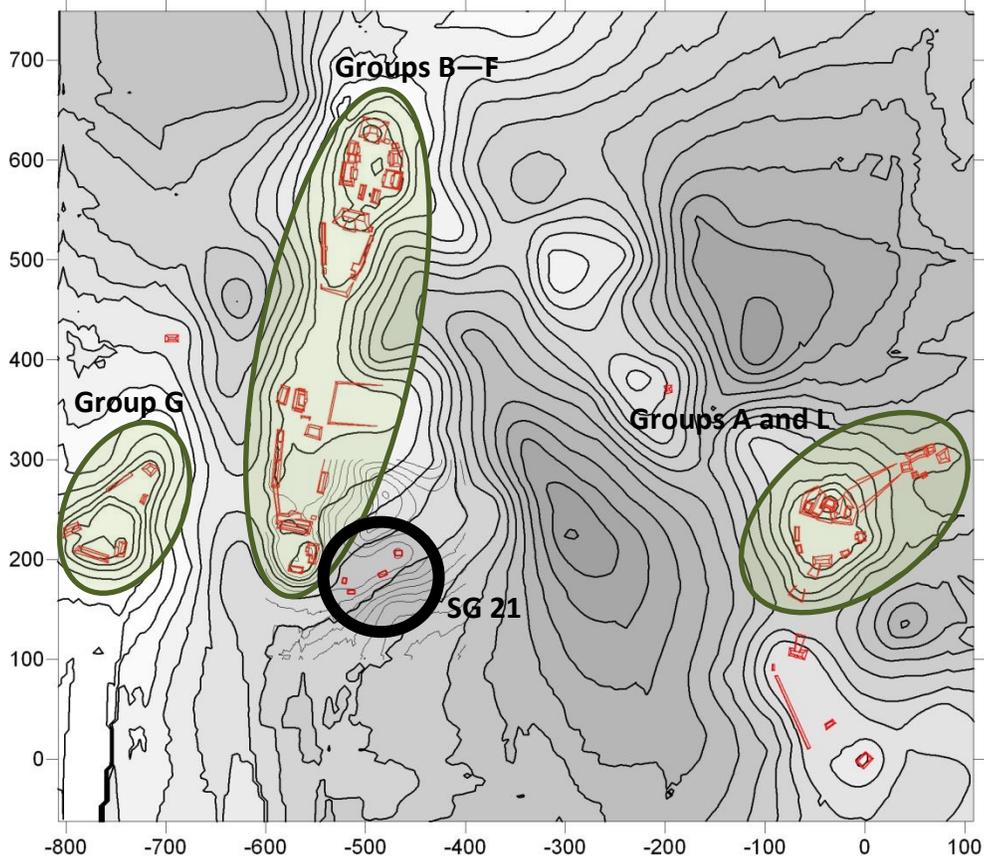


Figure 3. Topographic map of Uxbenká (numbers on axes are coordinates in meters).

Uxbenká is a mere 200 m from the contemporary Mopán Maya village of Santa Cruz. Unfortunately, its close location to Santa Cruz has resulted in considerable looting and vandalism. Archaeological work at Uxbenká prior to 2005 was negligible. Norman Hammond (1975) surveyed the unnamed site. In 1989 and 1990, Richard Leventhal (1990) surveyed parts of the site. He also undertook some test excavations. The Uxbenká Archaeological Project (UAP) began exploratory archaeological work in 2005 under the direction of Keith Prufer and Andrew Kindon. Continued survey continues to reveal peripheral settlements associated with Uxbenká suggesting the site may be more extensive than previously thought (Prufer 2007; Prufer et al. 2006)

SG 21 is an Uxbenká settlement group atop a flat bench that covers approximately 1800 m². SG 21 is in a unique location on the periphery of Uxbenká's center in an area that separates the outskirts from the core (Figure 4). Its close proximity to large architectural groups, particularly Group F, associate it with the site core, but its utilitarian artifacts, small structures and modest features tie it to the outskirts of the site. SG 21's location on the periphery of the site core may shed light on elite and non-elite relationships at Uxbenká.

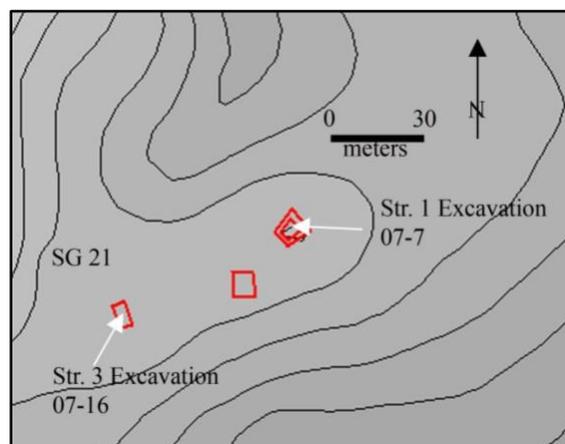


Figure 4. Topographic map of SG 21.

Field Methods

Field methods for this study followed standard procedure for archaeological investigations. In 2007, Kindon surveyed and excavated at two settlement groups (SG 23 and SG 24). I surveyed and excavated another settlement group (SG 21). From the data I recovered, I was able to determine the temporal occupation (when the group was inhabited and how long it was occupied) and how the structures and spaces of SG 21 were used. I also assessed the social status of SG 21 inhabitants to better comprehend the rich and variable diversity in Uxbenká's prehistoric population.

SG 21 was discovered by Uxbenká's archaeologists after the forest cover surrounding it was burned by a Maya farmer in order to plant his corn milpa (Figure 5). With all the vegetation gone, three small mounded areas of sandstone and limestone collapse debris were readily visible (Figure 6). In Mesoamerica, "mounds" are the remnants of human constructions. Usually, the smallest of mounds, which the most abundant, represent houses much like the mounds at SG 21 (Robin 1999:5). Ashmore (2007) cautions against this idea that small mounds always equal houses. Even if they do represent dwellings, their arrangement and layout might not be the best way to categorize the size and shape of a settlement group. It is possible perishable structures, not visible from the surface anymore, were part of the settlement group and their inclusion would change the size and shape of the group as a whole. However, Ashmore (2007:114) concedes there are general trends that show smaller mounds are the dwellings of the non-elite. Likewise, I categorized the mounds of SG 21 as the dwellings of non-elite residents.



Figure 5. Looking east from the base of Group F at SG 21. The tarps in the top center of the photo are STR 1 of SG 21.

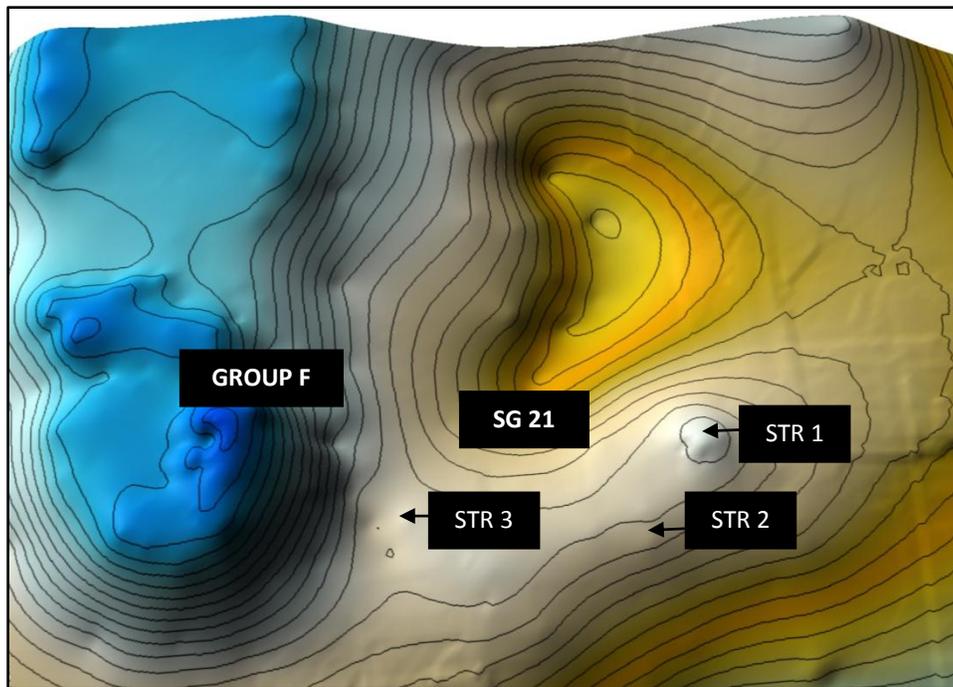


Figure 6. Surface of SG 21 with structure mounds (Group F on left / west of SG 21).

Materials and Procedures

Robin (1999) and others (Yaeger 2000) have shown that research designed to excavate both structures and the associated space around them can yield more complete data on household and community life than traditional structure-based excavations. I tested for and excavated structures and culturally modified spaces. Based on the three visible mounds and surrounding landscape revealed after burning, I divided excavations into four sub-operations (sub-ops 07-6, 07-7, 07-15 and 07-16). The area of SG 21 covers a flat bench on a hill, which is below another set of structures on the hill top labeled Group F. SG 21's known structures and associated space covers approximately 1800 m², including a probable agricultural terrace.

Sub-op 07-6 was on a small terrace just downhill from the tallest mound (STR 1). It was excavated to test whether or not the terrace was used by the prehistoric Maya as garden or orchard. Sub-op 07-7 was the tallest mound and its structure boundaries were the most visible from the surface. Sub-op 07-15 was a smaller and shorter collection of collapse debris with less definite visible surface boundaries. Sub-op 07-16 constituted a collection of excavation units on the northwest side of the flat bench, directly below Group F. Group F is a cluster of unexcavated monumental architecture around a central plaza on the hill top above SG 21 (Figure 6). By comparing the results of SG 21 excavations with other archaeological investigations at Uxbenká, it became obvious that the people living at SG 21 were of non-elite status.

I used a Sokkia SET 610 total station to shoot in all the structures and excavation units (Figure 7). Excavations were laid out in rectangular units and were carried out in levels, both natural and arbitrary, down to bedrock. Photographs were taken of the surface and the base of

each level. Floor plans were drawn of each level base if the floor contained artifacts and features such as collapse debris or soil changes. When a unit was completed, photographs were taken and profiles drawn of at least two unit walls (usually north or south and east or west). Photographs were also taken of any special feature and every artifact. The following descriptions focus mainly on methodology. For more extensive data discussion and interpretation see Chapter 4.

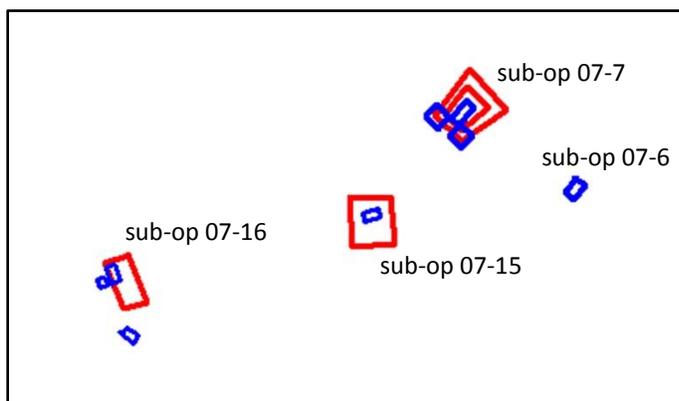


Figure 7. SG 21 excavations. Structures in red, excavation units in blue.

Sub-op 07-6

Approximately 10 m below and south of Structure (STR) 1 of SG 21 was a terrace. I undertook excavations of sub-op 07-6 to test whether or not the terrace had been used by prehistoric inhabitants as a garden or orchard. I set up a 1 x 2 m excavation unit. Based on a central datum for all of Uxbenká, this unit was named 194N/-453E. Because the terrace was downhill from the rest of SG 21 there were alluvial soil deposits and heavily weathered artifacts in the top soil of the unit. Level 1 was a natural level, extending about 10 cm below the surface to a clay layer. Level 2, an arbitrary level, extended 20 cm below the base of level 1. Level 3

contained very few artifacts and, based on soil composition, determined to be below the cultural level. I excavated all of level 3 to look for soil and color change and artifact concentrations, but only screened one-fourth of level 3, between 1 m and 1.5 m from the west wall. Once bedrock was reached, I stopped excavation.

Sub-op 07-7

Sub-op 07-7 encompassed all excavations relating to STR 1, the tallest and oldest structure of SG 21. In order to better orient excavation units within Structure 1, I first needed to locate two of the building's corners. I plotted out two 2 x 2 m units, one in the southwest corner of the unit (201N/-468E) and one in the northwest corner of the unit (204N/-471E). Because the goal of these units was to determine the orientation of the building based on finding constructed stone walls and corners, all excavations were completed in one level. Collapse debris was removed so I could better locate the walls and corners. The soil was screened and artifacts were collected and recorded.

Once I determined the edges and corners of STR 1, I laid out a 1 x 3 m unit (204N/-468E) directly in the middle of the structure, running parallel to the north and south walls of the structure and perpendicular to what appeared to be the front of the structure. I determined the front to be the side facing the flat plaza area of SG 21. Level 1 was a natural level of clay loam topsoil, extending about 10 cm below the surface to a clay layer. A number of pieces of collapse debris were found in level one, along with artifacts. Level 2 was an arbitrary level dug 20 cm below the base of level 1. The excavations revealed more artifacts and collapse debris, including the base of a stacked-stone wall in the central southern part of the unit. The base of level 3 was

sandstone and mudstone bedrock. In the central area of the unit, there were slabs of rock covering a feature that appeared to extend below the bedrock. This became Feature 1, which was a simple subfloor burial with collapsed capstones. The individual was found lying face up a supine position, head pointing toward the north. The individual was holding a bowl, designated Feature 2. The burial extended beyond 204N/-468E so another unit (204N/-468E extension) was opened up adjacent to the north edge of the first unit to expose the entire burial.

Just as unit 204N/-468E, level 1 of 204N/-468E ext. (extension) was a natural level of clay loam topsoil that extended about 10 cm below the surface to a clay layer. It contained sandstone and limestone collapse debris as well as a concentration of ceramic sherds on the central south edge adjacent to unit 204N/-468E. Level 2 was excavated down to the bedrock so level 2 of 204N/-468E ext. covers the same depth as both levels 2 and 3 of unit 204N/-468E. Level 3 was excavated to expose the rest of the Feature 1, the burial. This completed excavations of STR 1.

Sub-op 07-15

The test excavation unit for STR 2 was determined based on the concentration and orientation of limestone and sandstone collapse debris forming a shallow mound about 25 m southwest of STR 1. I opened up a 1 x 2 m unit in the middle of the collapse (191N/-480E). The STR 2 mound was much shorter shallower than the STR mound.

Sub-op 07-15 included all work at STR 2. Level 1 of 191N/-480E was a natural level that went down 10-20 cm below the surface to the clay layer. One metate piece was found on the surface right next to the unit and another piece was found in the NE corner of the unit at the

base of level 1. Level 2 was arbitrarily dug 20-39 cm below the base of level 1. In level 2 were two dark ashy stains that I originally thought were archaeological features, possibly remnants of a hearth or other type of fire. Later it was determined they were more likely to be burned tree roots based on the shape of the feature and the recent agricultural burning at SG 21. Level 3 was excavated another 1-10 cm down to bedrock. No new features were found. There was evidence of stacked-stone along the N and W walls of the 191N/-480E unit profile.

Sub-op 07-16

Sub-op 07-16 encompassed all excavations associated with STR 3 and the SW portion of SG 21. I put in three test units in this area. The Unit 1 (183N/-514E) was associated with STR 3. After working on the first unit, it became apparent that STR 3 was probably smaller than originally thought and consisted of more than one structure, contemporaneous or not. With this in mind, a Unit 2 (176N/-513E) was put in to the south to get a better idea of the structural layout at this end of the settlement group. Unit 3 of sub-op 07-16 (183N/-515E) exposed a midden adjacent to 183N/-514E (the first unit). I dug twelve shovel test pits 50 cm in diameter and 30-50 cm deep around STR 3 to look for artifact concentrations. The shovel test pit near Unit 1 yielded a good sample of obsidian blade fragments and pottery sherds so I opened up Unit 3 (183N/-515E), 1 x 1 m, at that location.

The goals of Unit 1 (183N/-514E) excavations were to discover the function and temporality of STR 3. The first level was a natural level. It consisted of clay loam topsoil and structure collapse debris that went down about 10 cm from the surface. By level 2 there was evidence of a stacked-stone wall right along the south wall of the unit. Level 2 was an arbitrary

level that went down about 20 cm from the base of level 1. One thin, shaped sandstone block toward the north central end of the unit was also uncovered. While digging level 3 it became obvious this and another sandstone block were burial capstones. Level 3 was a natural level that was excavated about 30-40 cm more down to bedrock. Compared to the other SG 21 excavations the bedrock around STR 3 was, on average, 30 cm deeper. Feature 1 was the burial in level 3 of Unit 1. The entire crypt and body had been cleaved off right above the distal end of the humeri. No remnants of the caudal portion of the burial were found.

Before laying out Unit 2 of sub-op 07-16 (183N/-515E) I dug twelve test pits to locate artifact concentrations indicative of a midden or other artifact rich area. The most prolific test pits were near Unit 1 associated with STR 3. Artifacts from the test pits were not formally recorded and recovered. Level 1, the clay loam topsoil, was about 15 cm deep. Artifacts were concentrated in the SE corner of the unit. This trend continued until bedrock exposing a midden in the S and E wall profiles. Levels 2 and 3 were thick clay of the same consistency as found in levels 2 and 3 of Unit 1. There was very little collapse debris found in Unit 2 – two blocks.

The relationship between the disturbed burial and the single wall in Unit 1 led me to question the layout of structures and spaces in the area of STR 3. I laid out Unit 3 (176N/-513E) to see if another structure could be found to the south of STR 3. The level 1 clay loam topsoil was similar to the rest of SG 21 excavation units. Level 2 was an arbitrary unit that went down through clay about 20 cm below the base of level 1. Levels 1 and 2 were full of large collapse debris. A stacked-wall was visible in the southern and western unit profiles with the wall jutting out of the southern edge of the unit. Level 3 was excavated to bedrock, which was 10-20

cm below the base of level 2. Pieces of plaster were found at the same level as the base of the stone wall. The excavations at Unit 3 likely point to a fourth structure in this area of the settlement group. Unit 3 also contained some dark soil features that extended below the bedrock. One of them yielded no artifacts and the other one pottery sherd.

Lab Analysis

Artifacts recovered from SG 21 excavations were bagged, labeled and taken to an off-site lab. They were washed, sorted and stamped. The artifacts could not be exported so I photographed all artifacts, drew important diagnostic pottery and lithics, took necessary measurements, and made notes at the lab in Belize. All records and statistics are based on quantitative artifact counts as done by Ashmore (2007) for Quiriguá settlement research. All recorded lithic debitage is at least one-quarter inch in length *or* width. All ceramic sherds are at least one-quarter inch in length *and* width.

A major goal of my fieldwork was to determine the temporal occupation of SG 21. I collected eleven charcoal samples for possible AMS radiocarbon dating. Modern contamination was a major concern because SG 21 was located on a recently burned corn milpa with considerable charcoal at the site. The three with the best context were chosen for lab analysis. One sample was taken from the under the mandible in STR 1. The second sample was taken from the midden 67 cm in Unit 3, associated with STR 3. The third sample was taken from the burial in Unit 1, associated with STR 3.

Without plenty of complete or nearly-complete vessels with distinctive features, such as surface color and design, the ceramics were difficult to date based on type. Additionally, the

ceramic data for the southern Belize region are quite limited. Hammond (1975) defined fourteen types, but only for a single Late Classic phase at Lubaantun. None of the projects associated with Pusilhá, Nim Li Punit, Uxbenká, or within the Maya Mountains have published descriptions of their pottery so no temporal seriation sequence has been established (Braswell 2002). In an effort to get some basic idea of the kinds of pottery found at SG 21 rim sherds were compared to those from Seibal (Sabloff 1975) another Maya site that has a well established temporal sequence. I determined most of the pottery resembled Late Classic (AD 600-950) vessel types and shapes.

Assessing the social variation of Uxbenká was another focus of my research. In order to place SG 21 within the context of the greater Uxbenká site I compared my data to other excavations completed at the site. This analysis included comparisons with SG 23 and SG 24, two other settlement groups with similar layouts, excavated by Andrew Kindon.

Results

As discussed I discussed earlier, excavations at SG 21 were divided into four sub-operations (07-6, 07-7, 07-15, 07-16). Each operation was associated with an area of the settlement group. The following analysis will discuss each sub-operation in light of its architectural elements, landscape, features, artifacts and any burials and grave goods. The quantity of each type of artifact was tabulated for each unit by level. I divided the number of artifacts by the cubic meters of matrix excavated for each unit to get artifact concentrations per cubic meter. I also used ratios to compare the quantity of one type of artifact to another in each excavation unit.

Sub-op 07-6

Sub-op 07-6 was an attempt to discern whether or not a terrace off the east end of SG 21, below STR 1, was used for horticultural purposes. The terrace appeared to have been constructed based on observance of the surrounding natural landscape and the flatness of the terrace. One 1 x 2 m unit (194N/-453E) was excavated on the terrace. No structures were found associated with the unit and there was no other collapse debris on the terrace visible from the surface. No other features were found in 194N/-453E.

Excavations of the terrace unit yielded basic utilitarian artifact assemblage (Table 3). There was a considerable quantity ceramic vessel sherds totaling sixty-three pieces (11.86% of total sample) at a concentration of 81.82 sherds per cubic meter. The ratio of ceramics to chipped stone was 2.4:1. There was a high percentage (16.35 % of total sample) of chipped stone artifacts recovered from sub-op 07-6 at a concentration of 33.77 artifacts per cubic meter. Three obsidian blade fragments were recovered as well as one obsidian projectile point tip. There was one chert flake tool and one large chert uniface that may have served as a hoe or digging tool (Figure 8). It is possible the artifacts found in 194N/-453E were transported there, after original deposition, by erosion. The position of 194N/-453E is on a flat plane downhill from the main settlement so it could serve as a collection area for weathered debris.

The most exotic artifact was a shaped and carved piece of polished stone. This fragmentary piece was probably used a decorative ornament. A small burned corn cob was discovered in level 2 more than ten centimeters below the surface. Considering the area of

SG 21 was being used as a corn milpa at the time of excavation, one must be cautious in claiming the cob was prehistoric without dating it. Another factor to consider is transportation through the ground by rodents. This could account for a modern corn cob transported to a deeper strata or it could account for a cob from a lower depositional level being moved up. However, this was the first time in approximately a decade since the field was a corn milpa The uniface was found well below the surface of the ground in level 2.

Table 3. Artifacts from sub-op 07-6, Unit 194N/-483E (2m²).

	Level 1	Level 2	Level 3	Total	Artifacts/m ³
Ceramics	4	50	9	63	81.82
body sherd	3	47	9	59	76.62
rim sherd	1	3		4	5.19
Lithics	5	19	2	26	33.77
chert	5	14	1	20	25.97
debitage	5	13		18	23.38
utilized/tool		1	1	2	2.60
obsidian		5	1	6	7.79
debitage		2		2	2.60
utilized/tool		3	1	4	5.19
Other Artifacts					
decorative polished stone		1		1	1.30



Figure 8. Large unifacial chert tool.

Sub-op 07-7

Excavations in sub-op 07-7 determined the orientation of STR 1 and uncovered part of the structure floor, including a subfloor burial. STR 1 is at the northeast end of the settlement atop an incline making it the highest point of the SG 21. STR 1 had the most pronounced and highest platform of all the SG 21 structures. It also had the most collapse debris of any one structure in the settlement. The structural debris was limestone and sandstone and there were both shaped blocks and unshaped cobbles. STR 1 is the only structure at SG 21 that could have had a two-tiered platform.

Two 2 x 2 m units were excavated on the west side of STR 1, the side facing the open patio area (204N/-471E and 201N/-468E). Artifacts were removed and recorded from the corner testing units, but the focus of the units was to determine the two western corners of STR 1 and the structure's orientation. Artifacts recovered from the two corner units were shaped and unshaped stone blocks, ceramic vessel sherds, and chipped stone debitage and tool fragments (Tables 4 and 5). The ratio of ceramics to chipped stone was approximately 3:2.

Table 4. Artifacts from sub-op 07-7, Unit 204N/-471E (4m²).

	Level 1	Total	Artifacts/m ³
Ceramics	20	20	31.25
body sherd	20	20	31.25
rim sherd	0	0	0.00
Lithics	19	19	29.69
chert	15	15	23.44
debitage	15	15	23.44
utilized/tool			0.00
obsidian	4	4	6.25
debitage	2	2	3.13
utilized/tool	2	2	3.13

Table 5. Artifacts from sub-op 07-7, Unit 201N/-468E (4m²).

	Level 1	Total	Artifacts/m ³
Ceramics	25	25	48.08
body sherd	23	23	44.23
rim sherd	2	2	3.85
Lithics	13	13	25.00
chert	11	11	21.15
debitage	11	11	21.15
utilized/tool			0.00
obsidian	2	2	3.85
debitage	1	1	1.92
utilized/tool	1	1	1.92

The 1 x 3 m test unit and an adjacent 1 x 1.72 m extension unit (204N/-468E and extension) yielded a basic utilitarian artifact assemblage with a high ceramic vessel sherd to chipped stone tool ratio of approximately 4:1 (Table 6). Other artifacts found in the first two levels were two round hammer stones and a shaped and polished stone fragment similar to the piece found in the terrace unit from sub-op 07-6. Pieces of disintegrating plaster were found periodically in excavations.

Table 6. Artifacts from sub-op 07-7, Unit 204N/-468E and extension (4.72m²).

	Level 1	Level 2	Level 3	Level 4	Total	Artifacts/m ³	Artifacts/m ³ without burial
Ceramics	33	36	5	11	85	42.50	45.68
body sherd	24	33	4	10	71	35.50	37.65
rim sherd	9	3	1		13	6.50	8.02
complete bowl				1	1	0.50	0.00
Lithics	9	11	1	1	22	11.00	12.96
chert	7	10	1	1	19	9.50	11.11
debitage	6	8	1	1	16	8.00	9.26
utilized/tool	1	2			3	1.50	1.85
obsidian	2	1			3	1.50	1.85
debitage						0.00	0.00
utilized/tool	2	1			3	1.50	1.85
Other Artifacts	2	1		2	5	2.50	1.85
decorative polished stone	1				1	0.50	1.23
ceramic spindle whorl				1	1	0.50	0.00
jute shell				1	1	0.50	0.00
hammer stone	1	1			2	1.00	1.23

Excavations in STR 1 uncovered a subfloor burial, Feature 1, Burial 1, with minimal grave goods. The burial was a crypt – a stone-lined pit with capstones (Figures 9, 10 and 11). Willa Trask recorded the human remains. The body was lying in a supine position and the hands and arms were placed so that the individual was clutching an undecorated utilitarian

redware bowl, Feature 2, on its abdomen. The head of the body pointed north based on articulated portions of remains and disbursement of disturbed remains. Skeletal analysis was done by Trask. She determined the individual was a young adult, aged 18-25 years, of indeterminate sex. The age was determined mainly by observations of the dentition, which exhibited light wear throughout the dental arcade. Although only a superficial, incomplete examination of dentition was performed, dental pathology was evident. Carious lesions were found on three teeth. Heavy calculus deposits were also observed (Schrag and Trask 2008).

Approximately one half to two thirds of skeleton was present in some form (Table 7). Of this, approximately one third was roughly arranged in anatomical position. A combination of poor preservation and an area of disturbance near the head, probably by a burrowing animal, prevented a complete analysis of the entire skeleton. The lack of repeat skeletal elements suggests that only one individual is present and that it was a primary interment.

The ceramic bowl, Feature 2, was present within the burial, Feature 1 (Figures 12 and 13). Bone was recovered from inside the bowl. It is consistent with an adult and none of the bones are repeated elements when compared with bones outside of Feature 2. We have suggested the bone in the bowl, Feature 2, and the bone outside of the bowl is all from the same adult (Schrag and Trask 2008). Two explanations for the presence of bone in Feature 2 are that it was placed there at the time of interment or it was moved there by a natural transformation process or a burrowing animal. Other evidence of post depositional disturbance is collapsed capstones over the lower legs up to the mid femora. No bone was discovered under the capstones suggesting the capstone collapse was a sudden event crushing the bone into small pieces that did not preserve. Fibula bones were found beside the fallen capstones. The

displacement of bones in the subfloor crypt may be consistent with it filling with water prior to sedimentation.

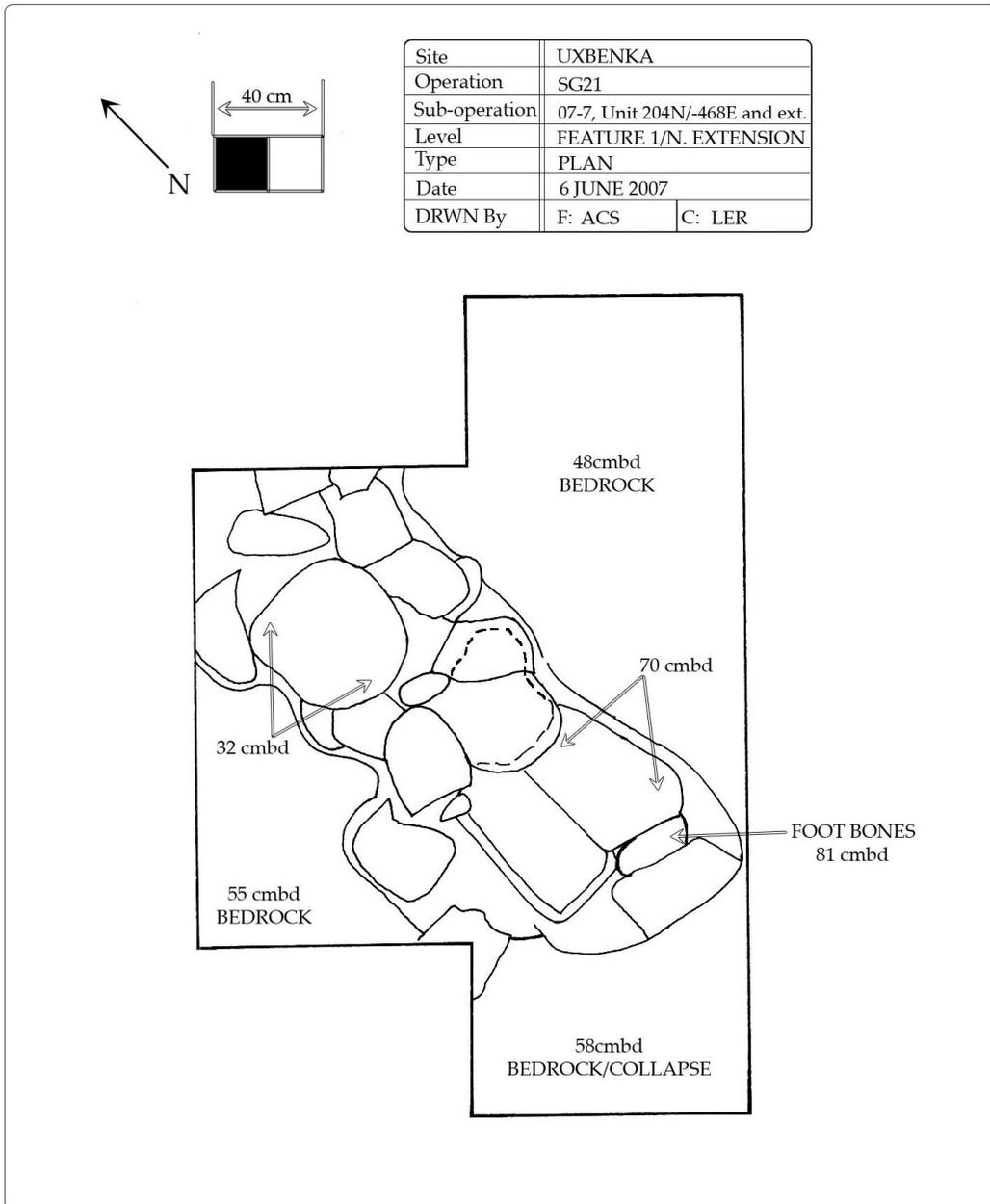
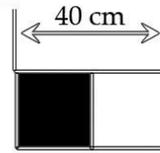


Figure 9. STR 1 burial capstones.

Site	UXBENKA	
Operation	SG21	
Sub-operation	07-7, Unit 204N/-468E and ext.	
Level	BURIAL 1 LEVELS 3&4	
Type	PLAN	
Date	6 JUNE 2007	
DRWN By	F: ACS	C: LER



● FRAGMENTARY
DEGRADED BONE

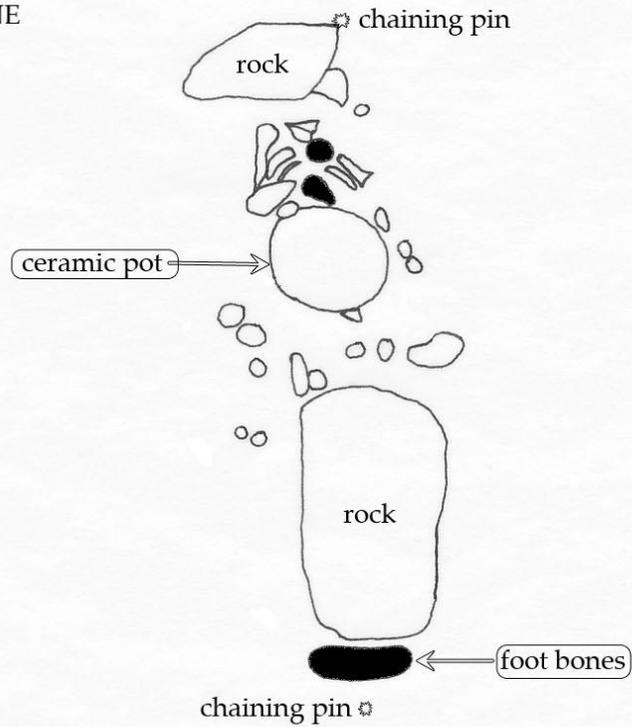


Figure 10. STR 1 Feature 1, burial, and Feature 2, ceramic bowl.

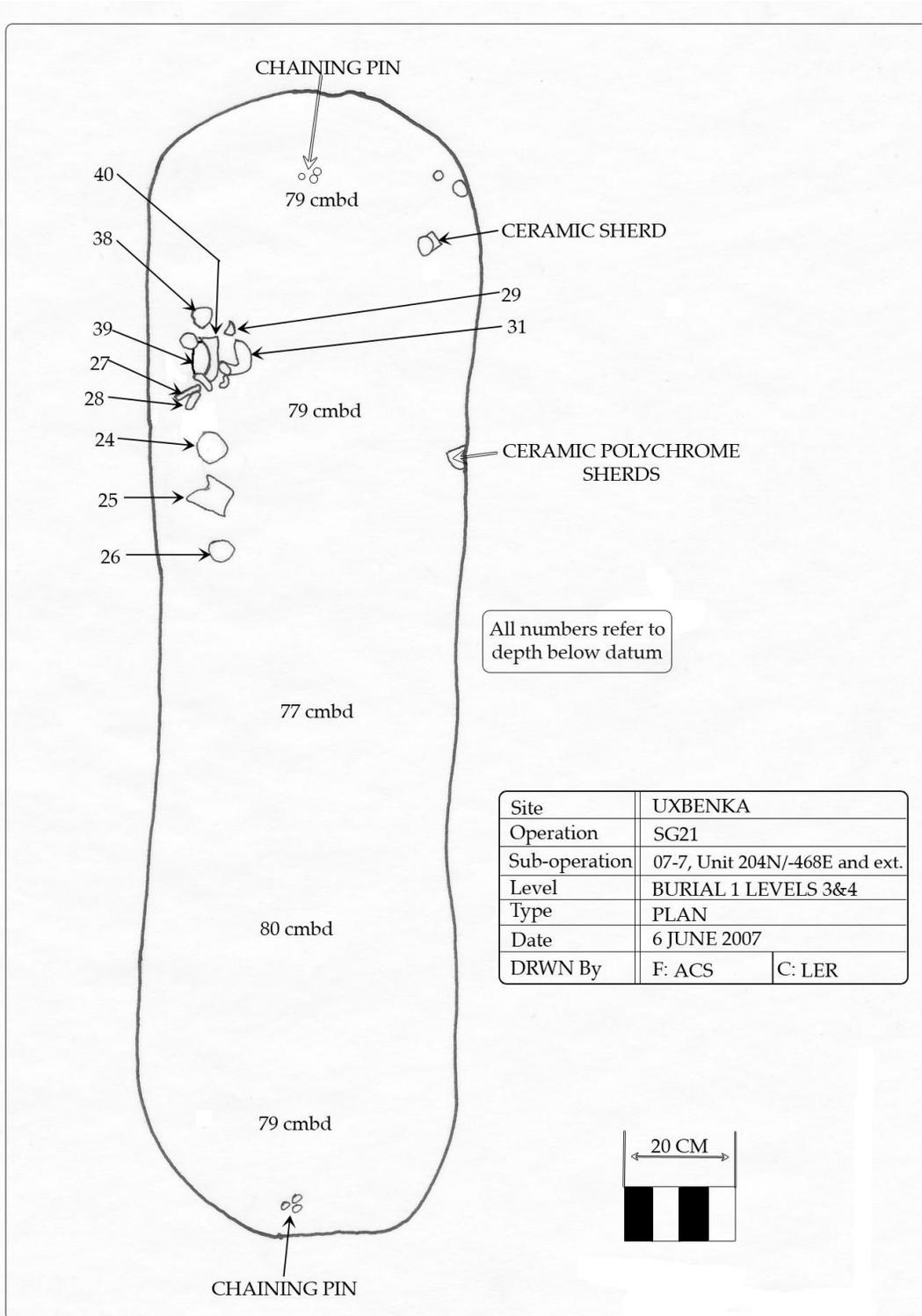


Figure 11. STR 1 Feature 1, burial, after some bone and Feature 2, ceramic bowl, removed.

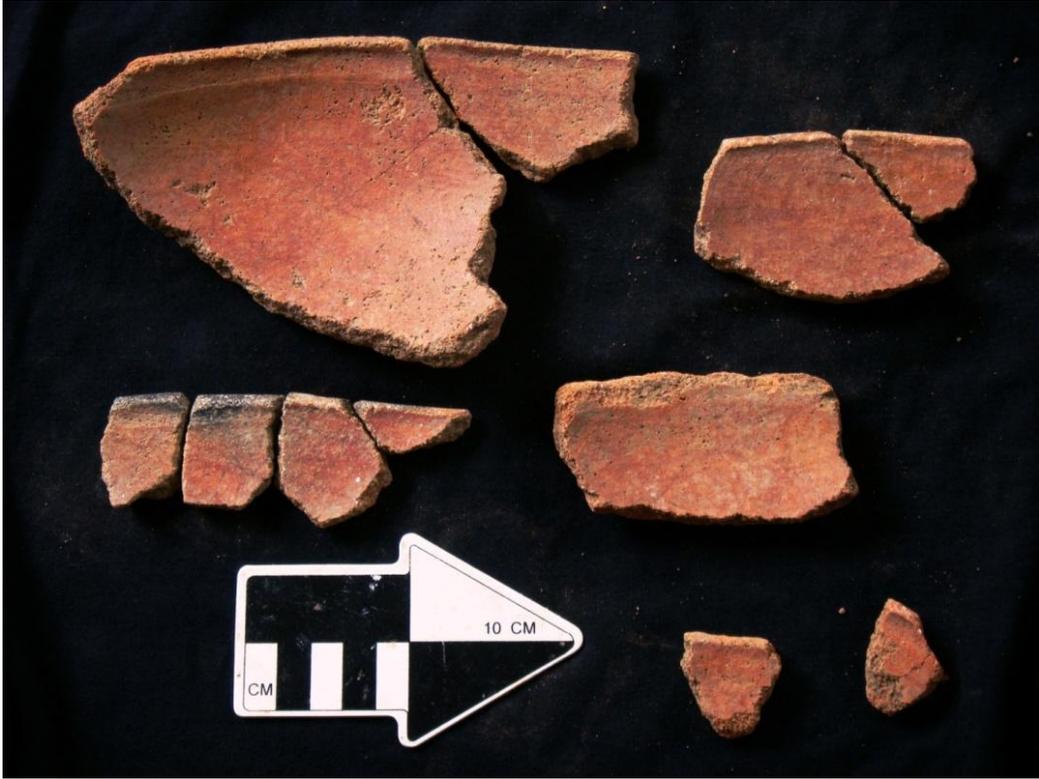


Figure 12. Fragments of STR 1 Feature 2, ceramic bowl.

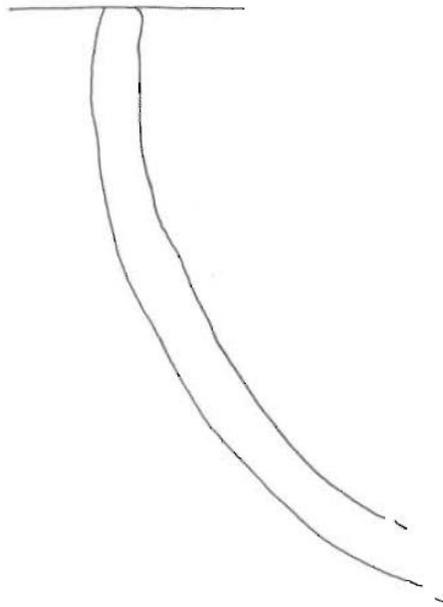


Figure 13. Shape and curvature profile of Feature 2, ceramic bowl.

Table 7. STR 1 burial components (compiled by Willa Trask, personal communication 2008).

Item Number	Element	Element description
1	Right femur	Fragments from diaphysis. Evidence of a robust linea aspera present on at least one fragment.
2	Femur	Side indeterminate, partial diaphysis. Evidence of possible insect boring activity.
3	Bone cluster	Misc, unidentifiable bone fragments
4	Thoracic vertebrae	Fragment of neural arch
5	Long bone fragment	Fragment is consistent with a humerus or tibia.
6	Left os coxa	Fragment containing portions of acetabulum and ischium
7	Long bone fragment	Unidentifiable
8	Possible clavicle fragment	Fragment
9	Bone fragment	Consistent with a fragment of vertebra or sacrum
10	Left 5 th Metatarsal	Complete
11	Right os coxa	Partial element. Small portion of apex of sciatic notch present. What is present looks sexually indeterminate.
12	Left Ulna	Proximal 3/4 ^{ths} present.
	Vertebra fragment	Recovered in lab with item 18. Fragment of a vertebral neural arch.
13	Left radius	Approximately half present. Notes do not specify which portion is present.
14	Left humerus	Distal half present.
15	Metacarpal	Portion of diaphysis. Unable to number or side.
16	Right humerus	Complete except for missing distal condyles. Measurements taken at an estimated midshaft: Maximum diameter at midshaft – 20.7mm, Minimum diameter at midshaft – 14.7mm, Circumference at midshaft – 60mm.
17	Long bone fragment	Possible radius or ulna diaphysis fragment
18	Right ribs	Greater than 2 present based on count of vertebral ends. Many unsideable body fragments indicate more may be present.
	Maxilla fragment	Recovered in lab with item 18. Inclusion with ribs may be due to close proximity of ribs to cranium and disturbance in feature.
	Long bone fragments	Recovered in lab with item 18. Unidentifiable long bone fragments
19	Bone fragment	Consistent with a tarsal fragment
20	Right Clavicle	Sternal half. Articulates with item 32.
21	Proximal Carpal Phalanx	Partial, missing proximal end. Large lytic lesion of palmer surface near distal end.
22	Long bone fragment	Possible humerus diaphysis fragment.
23	Left humerus	Head.
24	Parietal fragment	Side indeterminate
25	Cranial fragment	Notes on properties of fragment not taken in field.
26	Cranial fragment	Vault fragment. Bone indeterminate
27	Right rib	Fragment of vertebral end
28	Right 1 st rib	Partial. Portion present not recorded in field.
29	Right scapula	Partial. Portions present include glenoid fossa, lateral margin, coronoid process and partial acromial process.

Item Number	Element	Element description
30	Thoracic vertebra	Neural arch.
31	Mandible	Very little bone present, primarily portions of corpus/ alveolus present. Rami and mental eminence not present for observation.
	Mandibular dentition	Mandibular dentition is complete. Only a preliminary assessment was performed. Wear light throughout dentition, little wear on left third molar. Heavy calculus present on anterior dentition. Carious activity is present- caries with pulp chamber exposure located at distal CEJ of left third mandibular molar.
	Maxillary dentition	Collected with item 31 matrix. Left 2 nd maxillary premolar and right maxillary molar (number not specified in field). Wear is light. Large caries with pulp chamber exposure on mesial surface of maxillary molar.
	Cervical vertebrae 3-7	Half neural arch
32	Right clavicle	Acromial half. Articulates with item 20. Pronounced ligament attachment- ligament not specified (acromioclavicular or coracoclavicular?)
33	Left ribs	Greater than 1 present. High level of fragmentation prevented a definite count from being made.
34	Fifth metatarsal	Side indeterminate.
35	Foot bones	Not inventoried in field or lab. Field notes state calcaneus, additional tarsals, metatarsals, and tarsal phalanges are present.
36	Bone fragment	Traebecular bone
37	Long bone fragments	Unidentifiable long bone fragments
38	2 nd and 3 rd cervical vertebrae	C2- complete except for a small portion of right neural arch. No evidence of DJD or osteophytosis C3- Partial- half of centrum and neural arch present. No evidence of DJD or osteophytosis.
39	1 st cervical vertebra	Fragmentary
	Tooth	Functional root. Large carious lesion occupying entire occlusal surface. Pulp chamber exposure. Not identified in field.
	Maxillary right 2 nd premolar	Good condition, very little wear. Light calculus on buccal surface, small antemortem chip on disto-buccal crown.
	Cervical vertebrae 3-7	Half of neural arch and centrum present.
40	Left maxillary molar	Number not specified in field.
	Right maxillary molar	Number not specified in field.
Misc. bone bag (not inventoried in lab)	Fibula	Partial. Side not recorded in field pending lab analysis
	Patella	Complete. Side not recorded in field pending lab analysis.
	Bones	Many additional bones and bone fragments not inventoried in field. Inventory of these bones is pending further lab analysis.

In addition to the bowl, there were a few meager grave goods found in Feature 1 along with the burial (Table 8). Five very small polychrome body sherds were lying on the west edge

Table 8. Artifacts and materials from sub-op 07-7, Unit 204N/-468E and extension, Burial 1.

	Total
Ceramics	12
complete bowl	1
polychrome body sherds	5
other body sherds	5
spindle whorl	1
Jute Shell	1

of the crypt wall (Figure 14). The pieces are too small for stylistic analysis and too weathered to determine whether or not they fit together at one point in time. There were also five other ceramic body sherds from five different vessels. Two of the sherds were incised. All of the sherds had weathered

surfaces, but there was evidence of slip on three of them. One of the incised sherds was slipped, but the color was unknown. The second one was once covered in black slip on its exterior and the third sherd in red slip, on either the exterior or interior side. Remnants of plaster were found in small quantities throughout the burial. One jute shell was recovered from near the bowl, Feature 2. The most interesting grave artifact recovered from the crypt was a hemispherical incised spindle whorl in very good condition (Figures 15, 16 and 17).



Figure 14. Polychrome sherds from STR 1 burial.

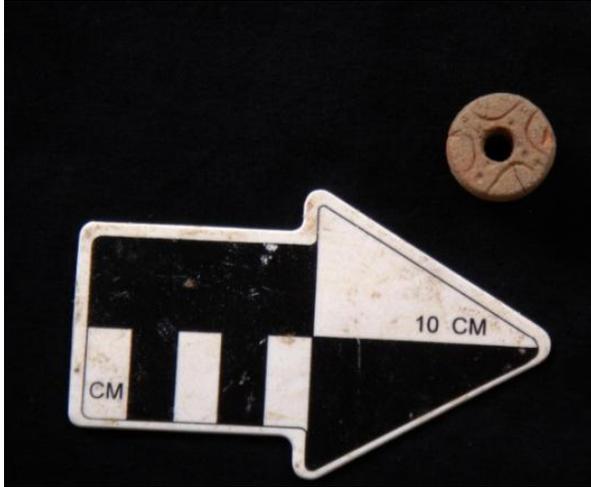


Figure 15. Spindle whorl from STR 1 burial, top view.

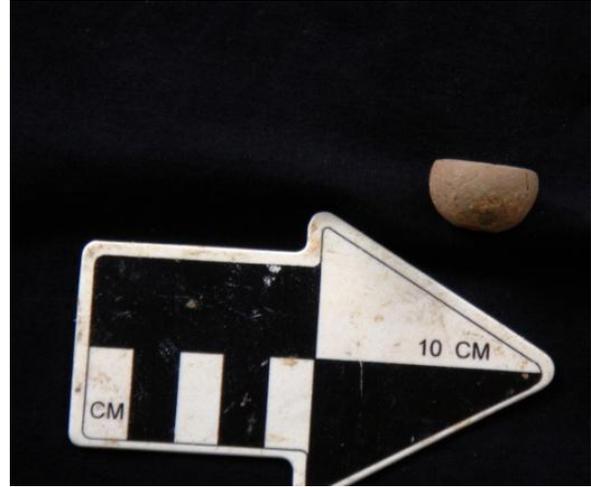


Figure 16. Spindle whorl from STR 1 burial, side view.

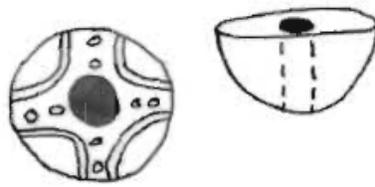


Figure 17. Spindle whorl from STR 1 burial, drawing.

Sub-op 07-15

The 1 x 2 m excavation unit (191N/-480E) at sub-op 07-15 was placed in relation to a weak concentration of shaped and unshaped collapse debris called STR 2. STR 2 is approximately 25 m southwest of STR 1. There was very little stone visible from the surface and from the excavations. Excavations did reveal a stacked stone features indicative of a wall or wall base visible in the north and west excavation profiles. Two ashy areas, originally thought to have been hearths, were attributed to recently burned tree roots.

Generally, the ceramics and lithics found in the STR 2 excavation unit and on the surface represent utilitarian activities (Table 9). The concentration of ceramics per cubic meter at STR 2 (68.48/m³) is higher than STR 1 (40.61/m³) (Table 15). The ratio of ceramic vessel sherds to chipped stone artifacts is almost 3.7:1 at STR 2, which is quite high compared to data recovered from the other sub-operations (Tables 9 and 15). No chert chipped stone tools or tool fragments were found, but there were four obsidian blade fragments, three of which were in level 2.

Table 9. Artifacts from sub-op 07-15, Unit 191N/-480E (2m²).

	Level 1	Level 2	Level 3	Total	Artifacts/m ³
Ceramics	14	47	2	63	68.48
body sherd	13	44	2	59	64.13
rim sherd	1	3		4	4.35
Lithics	8	9		17	18.48
chert	7	5		12	13.04
debitage	7	5		12	13.04
utilized/tool					0.00
obsidian	1	4		5	5.43
debitage		1		1	1.09
utilized/tool	1	3		4	4.35
Other Artifacts	4	3		7	7.61
metate fragment		1		1	1.09
mano fragment		1		1	1.09
hammer stone	1			1	1.09
polished stone fragment	1			1	1.09
incised clay sherd	2			2	2.17
fired clay chunk		1		1	1.09

In the ceramic assemblage there were two sherds that exhibited unusual shape and decoration (Figures 18 and 19). They were both incised and appliquéd. They could have been fragments of figurines, whistles, or decorative ornaments. There were also two irregularly shaped fired clay chunks approximately 3-5 cm in diameter. These pieces were highly weathered so it is possible they were figurine or whistle fragments, or they could have been

remnants from pottery making. No other evidence of pottery construction and firing was found in the STR 2 excavations and surface survey.

Ground and polished stone was recovered from unit 191N/-480E and surface survey on top of STR 2. One hammer stone fragment, broken in half, was recovered. The size and spherical shape of the STR 2 hammer stone resembles the two hammer stones found in STR 1. A fragment of polished stone that had a smoothed corner was found. The piece was too small to determine its function. A mano fragment and a metate fragment were found in level 2 of 191N/-480E. Another metate fragment was found on the surface of STR 2 adjacent to unit 191N/-480E.

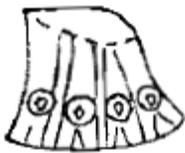


Figure 18. Incised and appliquéd sherd from STR 2.



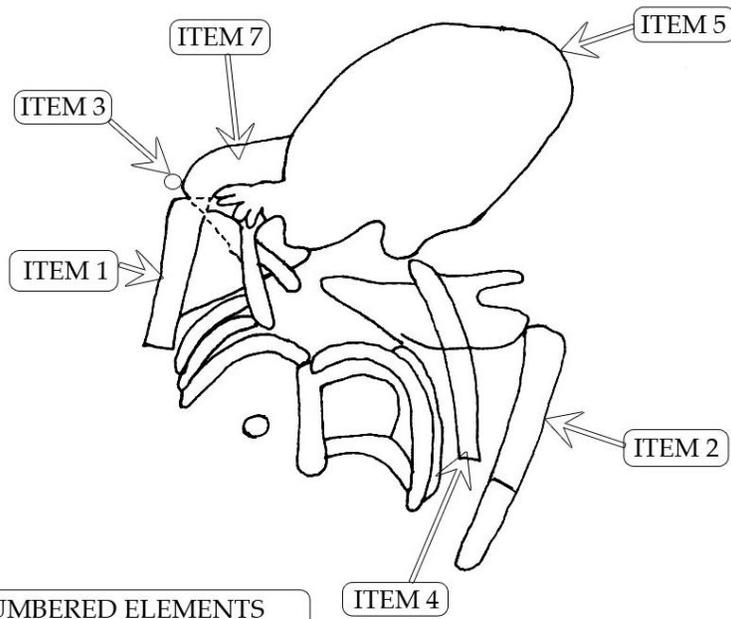
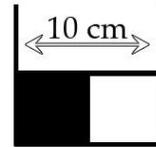
Figure 19. Incised and appliquéd sherd with face design from STR 2.

Sub-op 07-16

Sub-op 07-16 represents survey and excavation in the southwest portion of SG 21. This area is at the edge of SG 21's flat bench and at the base of the hill on which the larger Group F is located (Figure 6). It was obvious there was at least one structure, and likely multiple structures in the southwest part of SG 21. This area had a large amount of scattered shaped and unshaped limestone and sandstone blocks, but there were no high platforms comparable to STR 1 of sub-op 07-7.

Sub-op 07-16 had three excavation events (Figure 7). The Unit 1 (183N/-514E) was put in to locate and examine the cultural remains of STR 3. The south wall of the excavation unit revealed a stacked stone wall feature which was attributed to STR 3. In the northern part of the unit Feature 1, a partial burial (Burial 1) was discovered covered by capstones. The burial was a pit crypt – an unlined pit with capstones resting on the side walls (Figure 20). Willa Trask analyzed the human remains (personal communication 2008) (Table 10). The top part of the body, the portion that remained was lying in a supine position. Similar to the burial in STR 1, the head of the body pointed north. Trask determined the individual was a possible male 18-35 years old at death. The sex was determined based on observable cranial traits, mainly the size of the mastoid process and the large mental eminence. Poor bone preservation made the age difficult to assess. All of the bones were adult. The age could be narrowed slightly to 18-35 years based on the dental wear pattern.

Site	UXBENKA	
Operation	SG21 STR 3	
Sub-operation	07-16, Unit 183N-514E	
Level	LEVEL 3, BURIAL FEAT. 1	
Type	PLAN	
Date	23 JUNE 2007	
DRWN By	F: WRT	C: LER



ALL UNNUMBERED ELEMENTS
COLLECTED/REMOVED AS ITEM 8

Figure 20. STR 3 Feature 1, burial.

Table 10. STR 3 burial components (compiled by Trask, personal communication 2008).

Item number	Element	Element description
1	Right humerus	Proximal 2/3rds present. Missing head. Distal portion fragmented by pick axe. Relatively gracile.
2	Left humerus	Proximal 2/3rds present. Distal surface features an old postmortem (dry stick) break. Relatively gracile.
3	Left maxillary first premolar	Light wear with blunting of cusps. No dentine exposure observed.
4	Left Clavicle	Complete left clavicle
5	Cranium	Does not include maxillae. Removed with some matrix.
6	Right clavicle	Acromial 1/2
7	Mandible, right and left maxillae	Includes dentition
8	Thorax	Right and left ribs, cervical vertebrae, partial thoracic vertebrae and scapulae. Removed in bulk due to very poor bone preservation. No observations could be made due to preservation.

There was definite postmortem disturbance to Feature 1. The two capstones collapsed onto the individual, crushing and deforming of the cranium and mandible. The cranium appears to be elongated fronto-occipitally. This elongation may be due to cultural modification, but very poor bone preservation and extensive crushing of the cranium by the capstones, prevents making any definite conclusion. The most probable explanation is that this deformation can be attributed to the collapsing of the capstones combined with ground pressure (Schrag and Trask 2008).

Burial 1 was a unique find because it is represented by only the top one fourth of an articulated skeleton. The individual was truncated at approximately the mid thorax, with only the proximal two thirds of the right and left humeri, clavicles, scapulae, cranium, and mandible present. The cut goes through the distal two thirds of the humeri, the right and left ribs, and thoracic vertebrae. No remnants of the caudal portion of the burial were found. A portion of the right humerus was accidentally fractured at the time of discovery of the feature. Because of

this, the distal surface of the old break was not able to be observed on the right side. The left humerus was not disturbed during discovery and appears fully consistent with an old, dry bone break. The absence of the remainder of the capstones and rodent activity in the stratigraphy, coupled with the straight plane of breakage, suggests that this may be due to some type of non-recent cultural disturbance.

Just as in the other sub-operations of SG 21, the artifact assemblage from Unit 1 of sub-op 07-16 was utilitarian (Table 11). The ratio of ceramic vessel sherds to chipped stone debitage and tools was 3:1. One chert flake was found in level 3, otherwise 99.2% of all the artifacts were found in levels 1 and 2. The bottom of level 2 is consistent with the top of the burial capstones and the bottom of the stacked stone feature in the southern wall of the unit.

Table 11. Artifacts from sub-op 07-16, Unit 1, 183N/-514E (2m²).

	Level 1	Level 2	Level 3	Total	Artifacts/m ³
Ceramics	47	37		85	64.62
body sherd	42	33		75	57.69
rim sherd	5	2		7	5.38
handle fragment		1		1	0.77
indeterminate		1		1	0.77
appendage (possibly from censor)	1			1	0.77
Lithics	16	11	1	28	21.54
chert	10	8	1	19	14.62
debitage	9	7	1	17	13.08
utilized/tool	1	1		2	1.54
obsidian	6	3		9	6.92
debitage		2		2	1.54
utilized/tool	6	1		7	5.38
Other Artifacts	1			1	0.77
ceramic whistle mouthpiece	1			1	0.77

Unit 1, Level 1 contained six obsidian blade fragments, the most found in any one level of any SG 21 excavation unit. There were no obsidian flakes or cores found in the unit suggesting it was not a blade production area. Chert tools were also recovered from Levels 1 and 2. One was a simple utilized flake tool and one was a biface fragment broken off near the basal end of the tool. In addition to ceramic vessel body and rim sherds, a handle fragment, a possible censor appendage or decoration, and an indeterminate highly weathered piece were found in Unit 1. A ceramic whistle mouthpiece was also recovered from the unit.

Unit 2, 183N/-515E, was excavated after shovel tests revealed a concentration of artifacts near Unit 1 (Table 12). Unit 2 exhibited no architectural elements beside a few small stone blocks. Feature 1 was a bell-shaped midden in the southeast corner of the unit (Figure 21). A portion of the midden extending past the southern and eastern walls of Unit 2 was unexcavated. The midden yielded a large number of ceramic sherds, some of which belong to the same vessel. Unit 2 had 141.79 ceramic vessel sherds per cubic meter, more than any other SG 21 excavation unit. The lithic material in the midden was comparatively scarce. The ratio of the total number of ceramic vessel sherds (including individual sherds belonging to the same pot) to the number of chipped stone tools was 10.6:1.

Table 12. Artifacts from sub-op 07-16, Unit 2, 183N/-515E (1m²).

	Level 1	Level 2	Level 3	Total	Artifacts/m ³
Ceramics	66	29		95	141.79
body sherd	57	28		85	126.87
rim sherd	8	1		9	13.43
handle fragment	1			1	1.49
Lithics	5	4		9	13.43
chert		3		3	4.48
debitage		3		3	4.48
utilized/tool					0.00
obsidian	5	1		6	8.96
debitage	2			2	2.99
utilized/tool	3	1		4	5.97

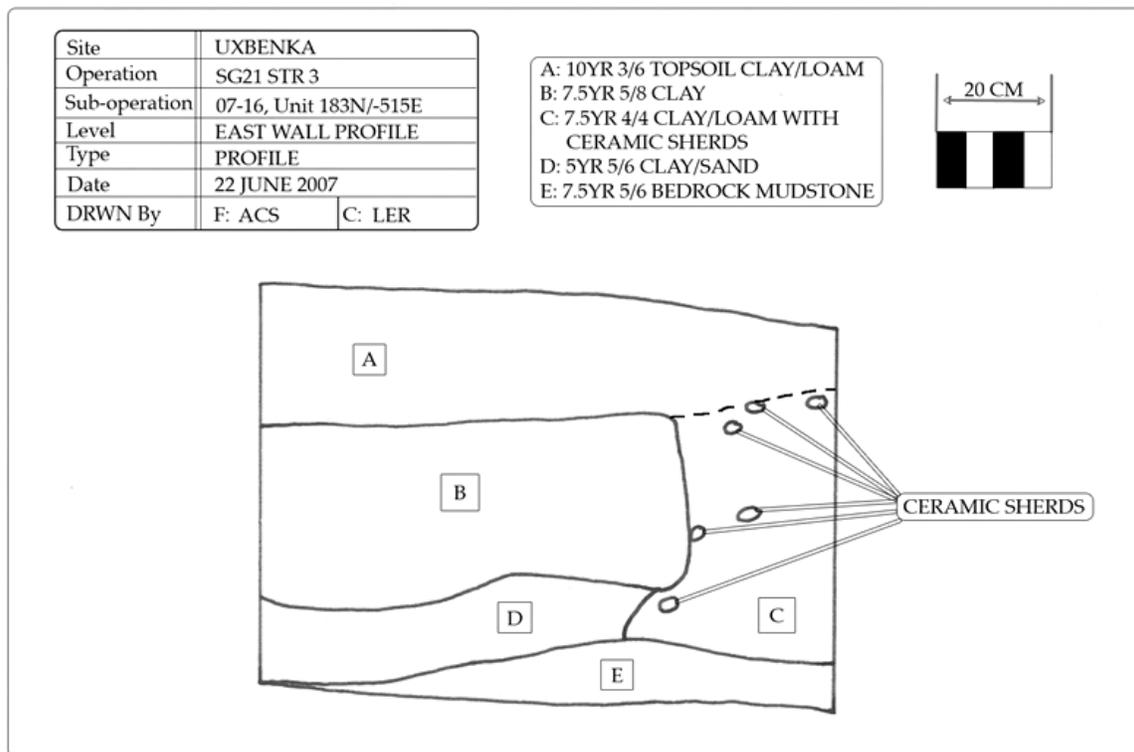


Figure 21. Midden feature in Unit 2, sub-op 07-16.

Unit 3, 176N/-513E, of sub-op 07-16 was excavated to determine the architectural layout of the southwestern portion of SG 21. Unit 3 excavations were undertaken to determine whether another building existed south of STR 3. There were stacked-stone features along the south wall of the unit (Figure 22). The base of the stone features rested on top of the bedrock. Chunks of plaster were found at the base of the stacked-stone. Collapse debris was visible in the west wall profile and it was mapped and removed from inside the unit (Figure 23). There was a small pit feature in the eastern part of Unit 3. No artifacts were recovered from it. It was determined to be either tree root hole or a post hole. No other evidence of post holes was found at SG 21 in the 2007 excavations. Soil samples could not be taken for further analysis.

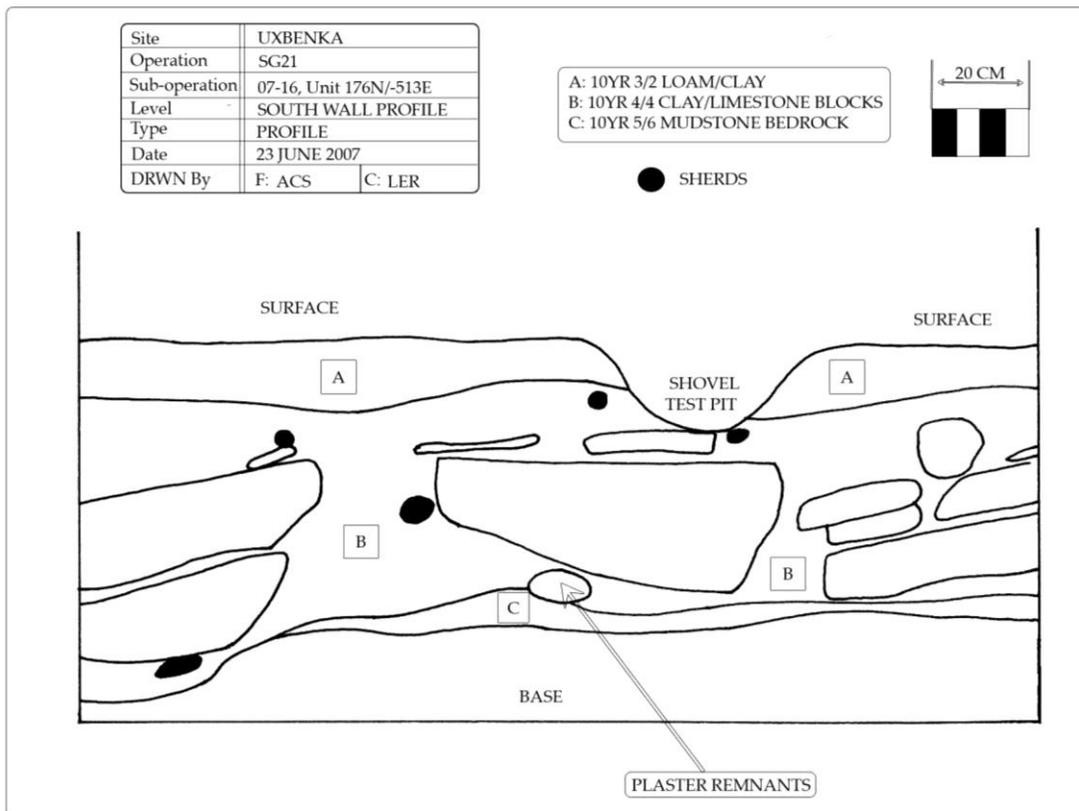


Figure 22. Sub-op 07-16, Unit 3, stacked-stone feature in south wall profile.

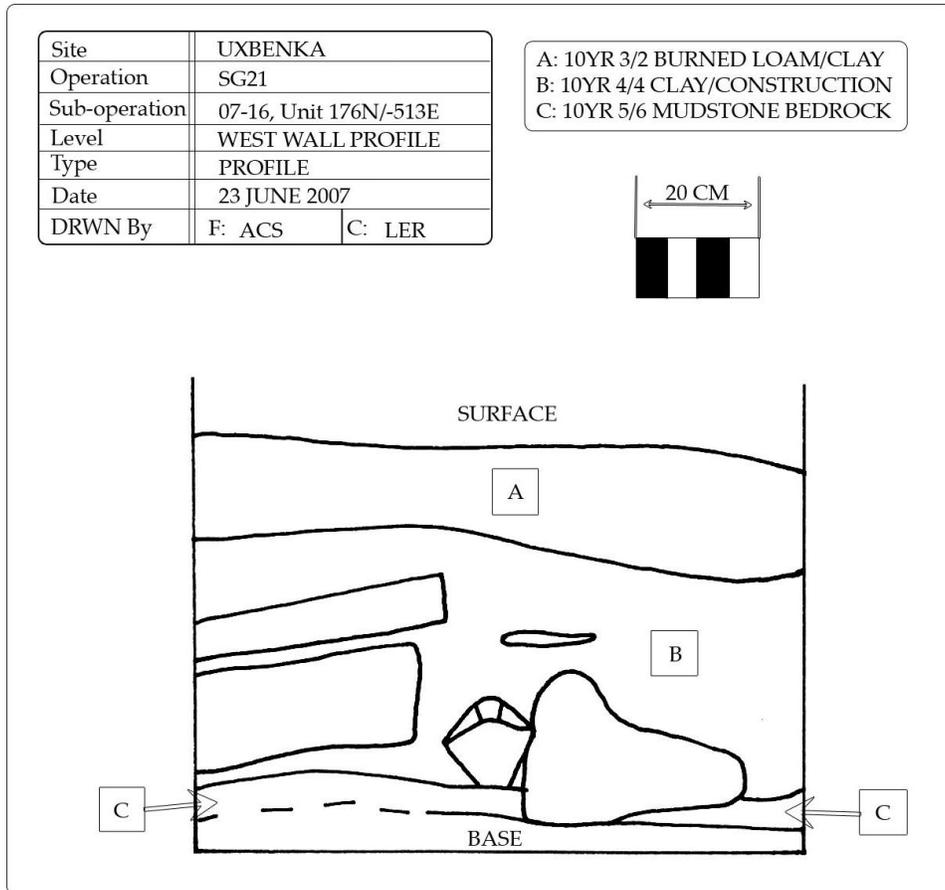


Figure 23. Sub-op 07-16, Unit 3, stacked-stone feature and collapse debris in west wall profile.

Like all the excavations at SG 21, the artifact assemblage for Unit 3 yielded basic utilitarian pottery wares and lithics. The ratio of ceramics to lithics is 5.9:1, which is relatively high, but not nearly as high as Unit 2 with the midden. Only two stone tools, both obsidian blade fragments were found. Unique ceramic body sherds found consisted of one perforated sherd, one incised sherd and two sherds that had some appliqué.

Table 13. Artifacts from sub-op 07-16, Unit 176N/-513E (2m²).

	Level 1	Level 2	Level 3	Total	Artifacts/m³
Ceramics	24	31	10	65	75.58
body sherd	21	27	10	58	67.44
rim sherd	3	4		7	8.14
Lithics	8	3		11	12.79
chert	6	3		9	10.47
debitage	6	3		9	10.47
utilized/tool					0.00
obsidian	2			2	2.33
debitage					0.00
utilized/tool	2			2	2.33

Surface Collections

The surface collections from sub-ops 07-7 and 07-15 contained artifacts that were similar to those recovered in the excavation units (Table 14). The sub-op 07-16 surface collection contained some interesting artifacts. No chipped stone was recovered, but there were ceramic sherds, a ceramic figurine whistle fragment (Figure 24), and the sharp end of a broken adze (Figure 25). Because these artifacts were found on the surface they lack good provenience.

Table 14. Surface Collection from SG 21.

	Sub-op 07-7	Sub-op 07-15	Sub-op 07-16	Totals
Ceramic Pottery	13	5	8	26
body sherds	8	4	5	17
rim sherds	5	1	3	9
Lithics	13	1		14
chert	10	1		11
debitage	9	1		10
utilized/tool	1			1
obsidian	3			3
debitage	1			1
utilized/tool	2			2
Other Stone	1	1	1	3
metate fragment		1		1
adze fragment			1	1
polished whetstone	1			1
Other Ceramics			1	1
figurine/ whistle fragment			1	1



Figure 24. Ceramic whistle figurine fragment from sub-op 07-16 surface.

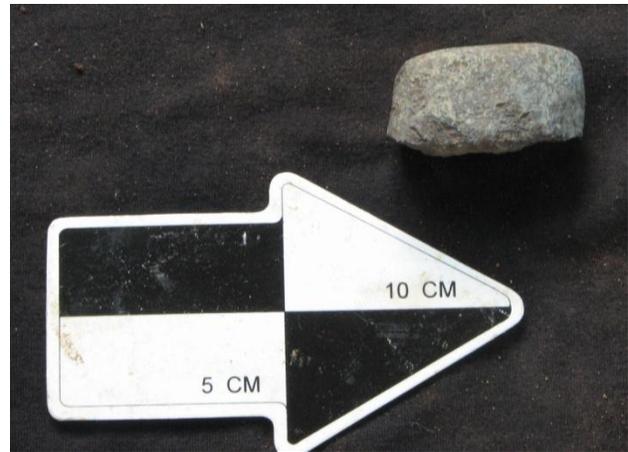
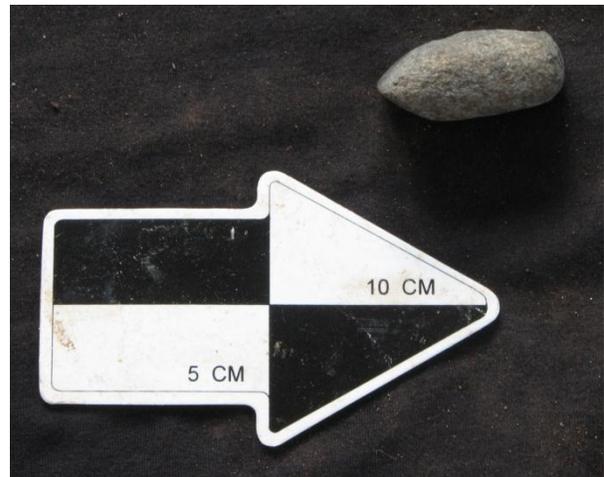
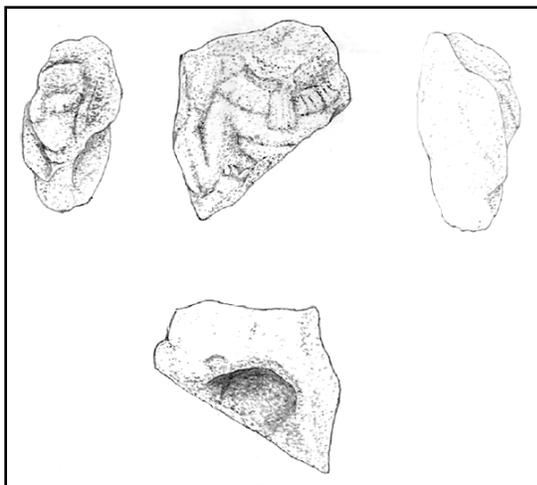


Figure 25. Adze fragment from sub-op 07-16 surface.



Ceramic Vessel Sherds, Chipped Stone Artifacts and, Exotic Artifacts

A total of 531 ceramic pottery sherds were collected from SG 21 excavations and survey. Their concentrations and number per sub-operation can be found in the table below (Table 15). Many of the sherds (n=299, 56.31%) were highly weathered making it difficult to determine whether or not they had any surface treatment. The rest of the sherds found exhibited interior and/or exterior slip. For 3.39% (n=18) of the sherds it was not possible to determine which side

was slipped. 20.15% (n=107) of the sherds were slipped on both the interior and exterior surfaces. Sherds that only had one treated surface were slipped on the interior (n=68, 12.81%) twice as often as the exterior (n=34, 6.40%). The five polychrome sherds made up 0.94% of the population and no other polychromes were found at SG 21.

Slip colors were black, red and orange with variants such as reddish orange and dark red. During analysis, there were a lot of uncertainties about color due to the general poor quality of preservation and the visible variation in color. Slip colors identified as “dark red or black” made it difficult to generate any sort of statistics that show a preference for one color over another. With that in mind, it appeared red or orange were more popular than black at SG 21.

Very little three-dimensional surface decoration, such as appliqué and incising, was found at SG 21. Only twenty-five (9.73%) ceramic vessel sherds were decorated or were decorative pieces of a vessel. Seven sherds had appliquéd designs (1.32%). Eleven sherds had simple incised designs (2.07%). One sherd had a small circular perforation and one sherd had a medial flange. Twenty-three (92.00%) of the twenty-five ceramic sherds that were three dimensionally decorated were also slipped. This percentage is much higher than the 43.69% of slipped sherds for the entire sample (n=531).

Only fifty-eight sherds (10.92%) were identified as “finely made.” Sherds from finely made vessels were made of fine paste with few small inclusions or none at all. They exhibited uniform surface shape. They were dense rather than airy.

Chipped stone tools and debitage from SG 21 was made of two materials – chert or obsidian. Of the total sample (n=159), 74.84% (n=119) of the artifacts were made of chert and

25.15% (n=40) were made of obsidian. Obsidian was not a local material. Chert veins found in limestone at the site indicate that it was a local material readily available for tool making.

There were six types of chipped stone artifacts found at SG 21 – flake debitage, blades, shatter debitage, flake tools / utilized flakes, bifaces, and unifaces. Flake debitage, larger than 0.25 in² represented the largest portion of the sample at 70.44% (n=112) – 63.52% of the chert found and 6.92% of the obsidian. The second most abundant chipped stone artifacts were blade fragments at 18.24% (n=29) of the total sample – one blade fragment was chert and 28 were obsidian. Shatter debitage made up 6.29% (n=10) of the sample, all of it chert. Chert flake tools or utilized flakes made up 1.89% (n=3) of the population. Three biface fragments (1.89%) were found at SG 21 – two were chert and one was obsidian. Chert unifaces made up 1.26% (n=2) of the population. Only four whole tools were found, the others were merely fragments. The whole tools were a uniface in the terrace unit of sub-op 07-6 and three utilized flakes, one from the sub-op 07-6 terrace unit, one from Unit 1 in sub-op 07-16, and one from sub-op 07-7 STR 1.

At SG 21 exotic or rare artifacts include a spindle whorl for spinning and a few tiny sherds of polychrome pottery associated with a burial in a building. Three broken greenstone decorative pieces, a broken adze and a figurine whistle fragment were also found at the site. While exotics are represented at SG 21 the amount of ordinary utilitarian ceramics, lithics and groundstone far outweighs the quantity of extraordinary artifacts.

Table 15. SG 21 Artifacts/m³ by sub-op (excluding surface collections).

Artifacts	sub-op 07-6	sub-op 07-7	sub-op 07-15	sub-op 07-16
Ceramic Pottery	81.82	40.61	68.48	94.00
body sherds	76.62	36.99	64.13	84.00
rim sherds	5.19	3.45	4.35	8.99
whole vessel		0.17		
handle fragment				0.75
indeterminate				0.26
ceramic appendage (possibly from censor)				0.26
Lithics	33.77	21.90	18.48	15.92
chert	25.97	18.03	13.04	9.85
debitage	23.38	17.53	13.04	9.34
utilized/tool	2.60	0.50		0.51
obsidian	7.79	3.87	5.43	6.07
debitage	2.60	1.68	1.09	1.51
utilized/tool	5.19	2.18	4.35	4.56
Other Stone				
hammer stone		0.33	1.09	
metate fragment			1.09	
mano fragment			1.09	
polished stone – decorative	1.30	0.17		
polished whetstone			1.09	0.00
Faunal				
jute shell		0.17		0.00
Other Ceramics				
ceramic spindle whorl		0.17		0.00
whistle mouthpiece				0.26
incised clay sherd			2.17	0.00
fired clay chunk			1.09	0.00

CHAPTER 4

DISCUSSION

Data recovered from excavations at SG 21 reveals pertinent information about non-elite settlement groups in the shadows of big houses at Uxbenká. Artifacts and features found at the settlement suggested how the ancient Maya used different structures and spaces at SG 21. The approximate 350-year occupation history of the settlement group reveals connections between different areas of the site at different times. The function of SG 21 as a non-elite settlement group during the Preclassic / Early Classic and the Late Classic adds to the physical and social complexity of Uxbenká. During each time period, people were occupying and using architecturally monumental and ritualistic parts of Uxbenká at the same time people were occupying small settlement groups. Undoubtedly, there were relationships between different social groups associated with different parts of the site.

The Functionality of Spaces and Structures at SG 21

Archaeologists must first conduct basic artifact studies before conducting more abstract analysis about the cultural or social aspects of settlement groups. Household activity areas often involve objects. Studying them is something archaeologists can do much more easily than attempts to develop abstract social ties not soundly based on material remains (Ashmore and Wilk 1988:4). The material remains of SG 21 provided evidence for claims about the function of site structures and spaces.

As archaeologists increasingly published data about non-elite residential groups it became evident there was a certain characteristic artifact assemblage among ancient Maya settlements. Ashmore (2007:100-101, Table 5.9) highlighted common nonperishable materials present and absent in settlements (Table 16). The artifacts, ecofacts, and features present at SG 21 are marked with a check. It is important to realize that not every dwelling fits the mold. It is always possible certain artifacts were not used at the residence or they were used and never deposited. The artifacts could also have been removed or destroyed after site abandonment. During habitation, households were kept clean and free of debris, leaving behind few artifacts (Tourtellot 1988a). Additionally, excavations like those conducted at SG 21, do not always canvas the whole site allowing all settlement associated artifacts and features to be uncovered.

Based on Ashmore's (2007) Quiriguá work and comparative analysis from other sites, SG 21 is a non-elite dwelling (Ashmore 1981; Hammond 1975, 1981; Haviland 1970, 1985, 1988; Hendon 1987; Inomata and Stiver 1998; LeCount 1996; Marcus 2004; Robin 1999; Schortman 1993; Tourtellot 1988a, 1988b; Wauchope 1934; Webster and Gonlin 1988; Webster et al. 1997; Yaeger 2000). Even though a relatively small portion of SG 21 was excavated, most of the artifacts and features match those in Ashmore's example. All of the artifacts, ecofacts and features commonly absent at non-elite residences are all absent at SG 21 as well.

Table 16. Nonperishable items commonly associated with Maya dwellings (Ashmore 2007:Table 5.9).

	Artifacts	Ecofacts	Features
Present	Metate(s) ✓ Mano(s) ✓ Pottery ✓ Spindle whorls/ perforated sherds ✓ figurines ✓ chipped stone ✓ hammerstones ✓ barkbeaters	Non-artifact bones Charcoal ✓ Ash Floral food residues?	Hearth(s) Midden(s) ✓ Ancillary strs ✓ Watertight basins Ovens Wells Subfloor burials ✓ Property-lot walls ✓ Chultuns / storage pits
Absent	Stone monuments Chipped "eccentrics" Elaborate censors	Sting-ray spines Tomb burials	Cache(s)

After interpreting the basic descriptive qualities of the archaeological record, archaeologists can begin to insert people into the equation (Robin 1999). The descriptive elements of SG 21 provided information about its ancient inhabitants' social organization, social variation, daily and periodic activities, and larger events. Unfortunately, the artifacts recovered by archaeologists do not always paint a clear picture of site activity and identity. Unless there was some sort of abrupt abandonment event, the most useful artifacts probably moved with the inhabitants. Often, what is found was left behind because it was abandoned, damaged or forgotten. Because households were inhabited for a long time their remains reflect many activities jumbled together (Johnston and Gonlin 1998:163). Even the absence of artifactual remains can also be misleading because it is likely that areas with the most activity were kept clear of debris. Brown (1989) warns that households, which combine the social and physical aspect of houses, cannot be defined outside their cultural setting. To do so carries a risk of misinterpretation and incorrect historical reconstruction.

With Brown's (1989) caveat in mind, I believe aspects of the social and cultural component of SG 21 can be interpreted without being too speculative. Part of personal, family, or small cohesive group identity and larger community is realized through materials, such as buildings and used objects (Bourdieu 1977). The artifacts found at SG 21 reflect actions of production, consumption, and reproduction, or the passing on of culture and ideas (continuity of life/habitation over time). The artifacts are utilitarian and exhibited a very low range of variation in types. There were cooking and storage ceramics, flaked lithic tools and debitage, metate and mano fragments, and few exotic or ornamental artifacts. The structural remains of SG 21 were simple shallow platforms with bedrock or tamped earth floors and stacked stone wall bases. For Maya sites with evidence of dwellings, the size, relative simplicity of construction and limited diversity along with the abundance of associated artifacts (Table 16) identifies homes for those of lower social and economic standing (Ashmore 2007:114).

The function of all individual structures and spaces at SG 21 is not completely conclusive. The artifacts and features associated with certain structures and spaces certainly gave clues to how the ancient Maya were using SG 21, but structure function is not always easy to identify. For comparison, at Copán, even the best example of a kitchen ancillary structure yielded no complete vessels during excavation. Other diagnostic features, such as hearths or cooking areas were also absent (Webster et al. 1997). However, the building platform's shape, its close positioning to a dwelling, the presence of a hearth, and its heavy midden deposit containing fragmented food preparation and serving artifacts indicated the structures was a kitchen.

Finding traces of specific activities is not always easy. Often, the spaces where people were the most active were kept the cleanest. Kitchens, shared dwelling space, and patio spaces were probably swept clean on a regular basis and kept free of debris (Tourtellot 1988a). At Copán, Hendon (1987:519) divided activity areas into food preparation, food serving and eating, manufacturing, ritual practice, storage and sleeping. Functional studies often attempt to associate one kind of activity with one type of building or space, but in reality its activity areas likely overlapped (Hendon 1987). Food preparation was probably done in a number of places including inside structures under a roof and on the patio out in the open. Due to better light outside, some production or manufacturing areas could have been spread out over the entire patio area and not concentrated in one location. Others were probably more localized, especially those involving firing clay and producing textiles. Storage could have been centralized in one structure, but it also could have been spread out between site structures.

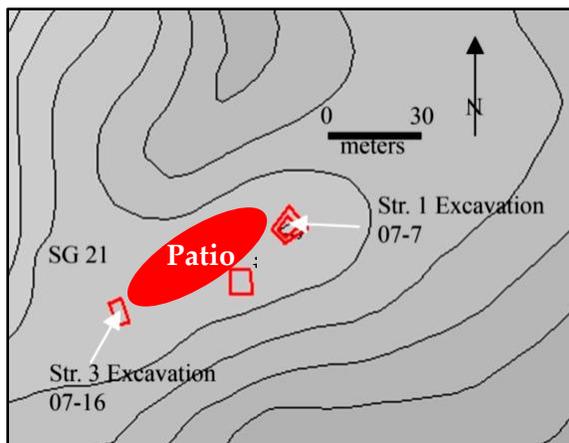


Figure 26. Topographic map of SG 21.

The structures of SG 21 surround a large ambient space – the patio. Compared to the number of structures in the group, the space seems rather large (Figure 26). Settlement surveys at Quiriguá revealed a noticeable range in the size of patios of different settlement groups (Ashmore 2007). Because SG 21 is on the flat

bench it makes sense that the ancient Maya spread out the settlement to utilize the whole bench. The patio area probably functioned as an open space for to conduct daily activities in the light. Because of its size it could have also been used for food production. The patio could have

accommodated more structures in the past. The number of known structures today is based on visible collapse debris. If any ancient structures lacked stone foundations and walls and were only made of perishable materials, their presence and location would not be obvious today. It is also possible very shallow platforms could have been completely buried through time due to bioturbation, colluviation, alleviation and other environmental processes (Johnston 2004). No excavations were conducted on the patio, but no plaster was found in the surface survey. It appeared the space had not been plastered. While plastering surfaces was very common in ancient Mesoamerica, the patios of smaller settlement groups at Quiriguá are also unplastered and appear to have had a tamped earth surface (Ashmore 2007: 44; Schortman 1993:161-162).

In general, SG 21 certainly functioned as a non-elite home based on minimal architecture, the utilitarian artifact assemblage, and few exotic or ritual artifacts. STR 1 of SG 21 had a low platform with short stacked-stone wall bases. The rest of the structures had stacked-stone wall bases, but no platforms. The floor of these structures was likely bedrock or tamped earth. Every structure at SG 21 was partially constructed with both shaped and unshaped sandstone and limestone blocks. However, the shaped blocks should be distinguished from the very geometric cut stone blocks found in the architecture in Uxbenká's core. Even Group F, just up the hill from SG 21 had much more finely crafted stone construction.

As described above, the artifacts were utilitarian in nature. Ceramic body and rim sherds came from simple jars and bowls. Some (n=232, 43.69%) of the sherds were slipped, but only the five polychrome sherds in the STR 1 burial were painted with any sort of design. Only seventeen vessel sherds had incised or appliquéd designs and these were all relatively simple. All of the stone material was utilitarian as well. There were no exotic flints, only chipped chert

unifaces and bifaces, utilized flakes, obsidian blades, and tool production debitage. Other stone artifacts found – three hammer stones, metate and mano fragments, a broken whetstone, and an adze fragment – were all used in basic daily domestic activities.

Not only was there an overabundance of utilitarian artifacts, there was an under abundance of exotic goods associated with the more elite class and elite or ceremonial sites. Two fragments of shaped, polished and carved ornamental stone suggested the ancient Maya of SG 21 did not have a lot of decorative accessories. The figurine whistle (Figure 24) found on the surface near STR 3 has been considered exotic because only one other whistle has been found at Uxbenká (SG 24), but they are plentiful at many Maya sites. In elite buildings at Aguateca, Guatemala figurines were facsimiles of warriors, nobles, commoners and beasts (Triadan 2007). A large number of figurines have been recovered from Lubaantun, also in the Toledo District of Belize and near Uxbenká (Joyce 1933; Wears 1977). The Lubaantun figurines are associated with domestic contexts (Wears 1977). They are made from molds and many of them function as whistles (Joyce 1933). They depict a wide range of “characters,” including men, women, ballplayers, animals, masked individuals and individuals with elaborate headdresses. What remains of the figurine whistle fragment found near STR 3 is the upper torso and part of one arm (Figure 24). The figurine had a collar around its neck and a belted waist. Although it is just a fragment, the SG 21 figurine is very similar stylistically to the Lubaantun figurines (Joyce 1933). Unfortunately, because the figurine whistle was found on the modern surface of SG 21 it lacks good provenience. It could have been transported by the ancient Maya or more recently by the people inhabiting the area.

Even the grave goods in the STR 1 burial were hardly exotic. Five very small polychrome sherds may have carried some prestige. They enlighten us about the wealth or status of SG 21's inhabitants if they could only manage five small polychrome sherds for a burial, but contributed one large utilitarian bowl (Figures 12, 13 and 14). Small amounts of small, portable objects are routinely found associated with Maya ritual and ceremonial spaces (Brown 2000). Brown (2000) argues that both the contemporary and ancient Maya practiced "ritual collecting" of various objects that were used in rituals to connect with supernatural and ancestral realms. Sometimes these objects were collected from archaeological contexts, which also connected them to the past. The artifacts found in the SG 21 STR 1 burial might be from "ritual collecting" practices. The burial fits Brown's (2000) criteria in two ways. The artifact assemblage does not conform to any known functional assemblages found in any domestic or other contexts of SG 21. Specifically, the five polychrome pottery sherds fit another criterion in that they appear to be worn, fragmentary and are only a small part of a larger and once whole piece. The polychrome sherds might have been valued because of their association with the elite class (Brown 2000). The sherds were collected and kept for a special situation, such as a death and burial, when they were used to give prestige to the deceased as well as connect him or her to the past and to the ancestral realm.

Other artifacts found in the STR 1 burial were considered exotic items. A spindle whorl found once functioned in the weaving process. Because it was found in a burial, it might indicate the gender or life possession of the individual (Figures 15, 16 and 17). Spindle whorls were placed on the lower ends of spindles for weight and balance while spinning thread. The whorl steadied the spindle as it revolved (Hendon 1987). Spindle whorls can be hemispherical,

like the one at SG 21, spherical, or a modified pottery sherd shaped into a circle and perforated with one hole in the center (Halperin 2003a, 2003b; Hendon 1987). Smaller whorls, such as the one found in the burial were likely used with a finer cotton or silkier thread (Halperin 2003a, 2003b). Textile production was probably something that was done by commoners for themselves. If the ancient Maya of SG 21 were probably making their own fabric and clothing it is possible the individual buried at SG 21 was a weaver. Evidence from two other sites suggests Maya females spun textiles (Halperin 2003a, 2003b; Hendon 1987). Currently, there is not enough evidence at SG 21 to support this claim. Pyburn (2004) did a comprehensive study of 200 burial reports from the 1970s and found that there was almost no difference between male and female burials in terms of orientation, interment type and grave goods. The only difference she came across was that males tended to have larger grave goods assemblages than females, who often did not have any good buried with them. Pyburn's (2004) research suggests the presence of a spindle whorl in the STR 1 burial does not necessarily indicate it was a female.

Non-elite Classic period burials at Seibal and Uaxactún featured similar kinds and amounts of grave goods found at SG 21 (Tourtellot 1988a; Wauchope 1934). At the subfloor burials at Uaxactún contained ceramic vessels and one had polychrome fragments (Wauchope 1934). Interments at Seibal were found with no more than two pieces of plain pottery – plates, bowls, dishes, or vases. Some of the burials contained an exotic crafted artifact, such as a few beadlets or a pottery mask, comparable to the polychrome sherds and spindle whorl at SG 21 (Tourtellot 1988a:443-447). The burials sometimes contained faunal remains such as toad bones. Faunal remains found in the STR1 burial consisted of one jute shell. The SG 21 burial is Preclassic or Early Classic, but the similarities are striking.

The artifacts, features, landscape and layout of structures and open spaces give clues as to their purposes and functions. The terrace landform just to the east of STR 1 was determined to be a possible garden area for the ancient residents of SG 21. Its prime location close to STR 1 and the flat surface of the terrace would have made it suitable for horticultural activities. Artifactual evidence of horticultural activities includes a large chert unifacial hoe (Figure 8) and obsidian blade fragments. At Copán, similar large chert bifaces and unifaces were used for gardening (Hendon 1987). In her research of two ancient Maya farming communities in the Cayo District of western Belize, Robin (1999) found that in proposed agricultural areas, artifacts recovered were small worn ceramic sherds, chert tools, and obsidian blade fragments. These were artifacts used for agricultural work or artifacts accidentally dropped and trampled into the dirt. Overall, at SG 21, the quantity of ceramic sherds in terrace excavation unit was comparable to the STR 2 test unit, but the terrace unit had twice the lithic materials (Table 15). This quantitative comparison also supports a horticultural use of the terrace area. It is possible the artifacts found in 194N/-453E were transported there after original deposition due to erosion. The position of 194N/-453E, on a flat plane downhill from the main settlement, did contain a considerable number of highly weathered ceramics (87.30% of sub-op 07-6 sample) which supports this theory. This might also explain the decorative polished stone fragment. However, this still would not account for the high ratio of utilitarian chipped stone tools to ceramic sherds. A burned corn cob fragment recovered from the unit might be another indicator that the terrace was used to grow food. The corn cob has not been chemically or microscopically analyzed, but it was found in level 2 more than 10 cm below the surface

suggesting it was deposited at the same time as other level 2 artifacts, which includes the majority of the ceramic sherds, four chipped stone tools and tool fragments.

The size, architecture, artifacts and features of STR 1 suggest it was a dwelling. An ancient Maya dwelling must have adequate floor (or bench) sleeping space for more than one person (Ashmore 1981). It may have an indoor hearth, food preparation area (manos, metates, etc.) and food preparation elements, unless another structure in the settlement serves the function of a kitchen (Ashmore 1981). Another structure (STR 2) likely served as a food preparation and storage area at SG 21 because a food preparation implements were not found in STR 1. The problem in defining and identifying a residence is that a complex set of activities were performed in the same place (Ashmore 1981; Tourtellot and Sabloff 1989). Instead of setting up a list of criteria for a house that holds true across all of the Maya Lowlands, it is more helpful to determine what features and artifacts are associated with a certain structure and then declare if it was probably a dwelling.

STR 1 was potentially large enough to provide sleeping space for several individuals. Without speculating too much about family organization and living arrangements at SG 21, it is safe to say that, based on size alone, STR 1 could have accommodated a “family” (Tourtellot 1988b; Willey 1981). The architecture of STR 1 was the most elaborate and would have required the most man hours to construct out of all the structures at SG 21. The platform was one or two tiered and made of both shaped and unshaped blocks. Pieces of degrading plaster – evidence of floor and/or wall surface treatment – were found in various levels of excavation at SG 21. Plaster was found in only one other area of SG 21, associated with a possible structure at the west end of the settlement. The location of STR 1 might be important in determining its

function. It is on the naturally highest part of the relatively flat SG 21 bench and near the edge of the hill. The view from STR 1, looking out across an expansive valley, is impressive. If the ancient Maya of SG 21 generally put more time, effort and careful thought into the location, construction and maintenance of a dwelling as opposed to ancillary structures, then STR 1 would make the best case for being a dwelling at SG 21.

Other evidence that STR 1 functioned as a dwelling would be the kinds of artifacts found in and on the structure and the subfloor burial. The only exotic artifact found outside the burial was a fragment of a shaped and polished stone ornament. The rest of the artifacts found associated with STR 1, excluding the burial, were basic chipped and ground stone tools as well as pottery sherds belonging to jars and bowls for practical daily activities. The ceramics to lithics ratio of 4:1 at STR 1 suggests that activities carried out there required the use of containers to hold, store, and transport items, particularly food. No evidence of a pottery production area – kiln or firing area or chunks of fired clay – was found in STR 1. The presence of lithic tools and debitage indicates activities like cutting, slicing, sharpening, chopping, and pounding. The relatively few lithics compared to ceramics suggests that while those activities were happening in STR 1, the building was probably not a major production area and rather a place where daily resource procurement, preparation, use, or consumption took place.

The presence of a simple subfloor crypt containing at least one burial commonly appears in ancient Maya Lowland dwellings. Ashmore (2007) lists subfloor burials as one of the indicators of a non-elite settlement. Willey (1981:389) determined subsurface burials were common in his Maya Lowland settlement surveys. As mentioned previously, both Seibal and Uaxactún had simply constructed dwellings with subfloor burials (Tourtellot 1988a; Wauchope

1934). The site of Cuello, in northern Belize had a tradition of one individual per interment and they were usually men in walled crypts covered with capstones (Bartlett and McAnany 2000). The sex of the STR 3 burial was determined to be male. The spindle whorl found in the STR 1 burial might give some indication of sex. Females have often been associated with spinning among the ancient Maya, but the sex of the burial could not be confirmed by analyzing the morphology of the STR 1 skeletal remains (Halperin 2003a, 2003b; Hendon 1987). Both burials were in crypts covered with capstones. This trend supports the position that STR 1 was a non-elite dwelling based on both the presence of a subfloor burial and the small amount of simple grave goods present in the burial.

STR 2, at SG 21 is a small building with no apparent platform about 25 m from STR 1. The only structural remnants discovered were a sparse scattering of stone blocks visible from the surface and a stacked-stone wall base found during excavation. The structure most likely had a tamped earth floor. All this suggests STR 2 required less labor investment to import the stone and build the structure. At Copán, small buildings were used by settlement group residents for domestic activities such as cooking and storage, but not as living space (Hendon 1987:546). Kitchens or food preparation areas are difficult to identify (Webster et al 1997). The high frequency of activity in a food preparation area and the high rate of material use, reuse, discard and exchange leaves little behind to make definite conclusions. The kinds of artifacts archaeologists would likely find in a kitchen were well used and highly valued because of their essential uses in storing, serving and preparing sustenance. Such items would not be left behind, if unbroken. If broken, they would have been swept out of the area to keep it free of debris.

Other clues that indicate a structure could have been a kitchen would be a low basal platform – or none at all in the case of STR 2, ancillary position to a dwelling – such as STR 1, and deposits containing fragments of obsidian blades, grinding stones, jars and bowls (Webster et al. 1997:52). All of those types of artifacts were found associated with STR 2. Two metate fragments and one broken mano were found at SG 21 and nowhere else at SG 21. A hammer stone for smashing food was found at STR 2. Four obsidian blade fragments were the only kind of chipped stone tool recovered from the STR 2 excavations. Three of them were found in the same level as one of the metate fragments and the mano fragment (level 2). The ceramics sherds from STR 2 that could be identified came from jars and a bowl or plate. Compared to STR 1, STR 2 had 27.87 more ceramic pottery sherds per cubic meter. Interestingly, 75% percent of the ceramic sherds found in the STR 2 excavations came from level 2, the same level as the mano fragment, one of the metate fragments and most of the chipped lithic material.

In the ceramic assemblage there were two sherds that exhibited unusual shape and decoration (Figures 18 and 19). They were both incised and appliquéd and could have been pieces of a figurine, whistle, or a decorative ornament. One of the incised sherds could even have been part of a vessel flare that broke off at the joint between the flare and the main part of the vessel (Figure 18). There were also two irregularly shaped fired clay chunks approximately 3-5 cm in diameter. These pieces were highly weathered so it is possible they were figurine or whistle fragments, or they could have been remnants from pottery making. No other evidence of pottery construction and firing was found in the STR 2 excavations and surface survey. These unique artifacts were found in very low concentrations and none of them are characteristic of kitchens.

A hearth, one feature commonly associated with kitchens, was not found at STR 2. In level 2 were two dark ashy stains that I originally thought were archaeological features, possibly remnants of a hearth or other type of fire. When I completed excavating level 2 the stains looked as if they might have been tree roots that burned more recently. This area is a milpa that gets burned periodically to clear the land for corn planting. Attributing the stains to roots better explained the way the features arced through the level. While more extensive excavations could reveal more about the function of STR 2, the large number of sherds found and the other artifacts support the function of STR 2 as a food preparation, storage and consumption area.

The function of STR 3 and the southwest portion of SG 21 is the least clear at this point. STR 3 might have been a dwelling, like STR 1. If STR 3 was a dwelling, its construction was not nearly as complex as STR 1. In fact, it appeared STR 3 had no platform, but it did have at least one stacked-stone wall that was excavated in Unit 1 of sub-op 07-16. Compared to STR 1, similar kinds of artifacts, the presence of a subsurface capstoned burial and a midden full of utilitarian ceramic sherds all suggest STR 3 was a dwelling. Unit 1 contained a variety of both rim and body sherds as well as a variety of chipped stone tools and debitage indicating STR 3 was a place of multiple activities. In addition to numerous body sherds and a few rim sherds, a handle fragment, a possible censor appendage or decoration, and an indeterminate highly weathered piece were found in Unit 1. A ceramic whistle mouthpiece was also recovered from the unit. The ceramics assemblage of Unit 1 was quite variable compared to other areas of SG 21. The ratio of the total number of ceramic vessel sherds (including individual sherds belonging to the same pot) to the number of chipped stone tools was 10.6:1. The high number

of ceramics can be explained by the nature of the midden which was a depository for broken pottery. Stone tools could be lacking for three reasons; 1) they were not used in the household contexts excavated, 2) lithics were deposited elsewhere when they broke, and 3) the ancient Maya made and used pottery in greater quantities than they made and used chipped stone tools. .

The total number of structures in the sub-op 07-16 area of the site is unclear. Unit 3 was excavated to determine the architectural layout of the southwestern portion of SG 21. As mentioned previously, the large quantity of limestone and sandstone building material in this part of the site spread out over an area larger than one building led me to believe there was more than one structure. Unit 3 excavations suggested either there was one long large platform in the southwest part of SG 21 or a completely different building existed south of STR 3. There were stacked stone features along the south wall of the unit. The base of the stone features rest on top of bedrock. Chunks of plaster were found at the base of the stacked-stone feature indicating the floor of the structure was plastered or the stone wall base was plastered and during decay, the plaster fell off to the ground. Only Unit 3 in sub-op 07-16 and the subfloor burial in STR 1, sub-op 07-7 had evidence of plaster. Unit 3 also contained two dark soil stains that extended below the bedrock. One of them yielded no artifacts and could have been a post hole, but it resembled tree root stains found elsewhere at the site. The other dark stain was under a large stone in the south edge of the wall. I recovered one small weathered pottery sherd from the shallow stain.

Based on the sub-op 07-16 excavations, there appears to have been different construction phases and the presence of another structure in addition to STR 3, however, the

contemporaneity of the structures is unknown (Table 17). The burial and stone wall in Unit 1 and the midden in Unit 2 both date to the same general Late Classic time period so their association is known. The cleavage of the burial and the disoriented building layout of this portion of the settlement group suggests more than one phase of construction and remodeling. The top of the burial and the base of the stacked stone wall visible in the southern profile of the unit are on the same plane. The capstones were at floor level indicating a subfloor burial. Based on the excavations, it is unclear whether the burial was *inside* that stone wall and inside STR 3 or whether it was *outside*. The base of the stone wall was actually quite a bit above bedrock. Instead of resting on bedrock, like the stacked-stone features in sub-ops 07-7 and 07-15, the base of the stone wall associated with STR 3 rested on top of a thick moist clay layer about 30 cm above the bedrock. The burial extends down into this clay layer, but still ends about 10 cm above the bedrock.

Table 17. UAP settlement dates.

Operation	Description	Lab # ¹	$\delta^{14}\text{C}$	\pm	¹⁴ C age (BP)	\pm	95.4 (2 σ) ²	% ³
Settlement	SG21 Str 3 Pit Fea	42810	-156.3	1.2	1365	15	AD 646-671	1.0000
Settlement	SG21 Str 3 burial	42811	-147.0	1.3	1275	15	AD 681-772	1.0000
Settlement	SG21 Str 1 burial	42824	-198.4	1.1	1775	15	AD 179-185	0.0051
							AD 214-264	0.5496
							AD 275-334	0.4454
Settlement	SG23 Str 1 burial	42812	-150.4	1.2	1310	15	AD 660-713	0.7741
							AD 745-767	0.2259
Settlement	SG24 Str 4 copal?	42813	-151.7	1.2	1320	15	AD 657-695	0.8476
							AD 698-707	0.0268
							AD 748-765	0.1255

There is evidence from other sites that settlement groups were repeatedly remodeled (Tourtellot 1988a; Wilk and Rathje 1982). The Maya of the Classic period were relatively immobile because of the labor investment in their building projects. Excavations of residential groups show extended occupation through remodeling and midden build-up – both features of SG 21 (Wilk and Rathje 1982). It is possible that during a reconstruction event, the STR 3 burial had left the social memory of the ancient Maya living at SG 21 and they inadvertently destroyed it. Once they discovered the mistake, they left the remaining portion and discarded or reburied the bottom three-fourths of the skeleton. The bottom portion of the interment was not located during the 2007 SG 21 excavations. Another explanation for the cleaved burial could be it was a disrespectful violent action undertaken to make a point. No other evidence of violence was found, such as massive burning or a high number of weaponry was found to support this claim.

SG 21 Occupation History

The material remains of SG 21 provided evidence about the temporal occupation of the site. Dating SG 21 so it could be temporally compared to the occupation history of Uxbenká was an important goal of my research. I attempted to develop a ceramic sequence, but the pottery was too fragmentary and weathered. Without complete or nearly-complete vessels with distinctive features, such as surface color and design, they were difficult to date based on type. Rim sherds were compared to those from another Maya site, Seibal (Sabloff 1975) and I determined most of the pottery resembled general Late Classic (A.D. 600-800) vessel types and shapes.

AMS radiocarbon dating was the most effective way to determine the temporal occupation of SG 21. Two dated wood charcoal samples corroborated Late Classic dates for STR 3 and the associated midden. The STR 3 burial dated to 1275 ± 15 years BP. For the date 1275 ± 15 years BP the calibrated age range is cal A.D. 681-772 (2 δ) (Table 17). A midden feature associated with STR 3 also dated to the Late Classic at 1365 ± 15 years BP. For the midden date 1365 ± 15 years BP the calibrated age range is cal A.D. 646-671 (2 δ) (Table 17). The third date, from the burial in STR 1 represents an earlier occupation, associated with the Preclassic period in southern Belize. The STR 1 burial dated to 1775 ± 15 years BP. For the date 1775 ± 15 years BP the calibrated age range is cal A.D. 179-334 (2 δ) (Table 17).

The most conservative estimate of calibrated dates yields a time span of roughly 350 years from A.D. 334-681 (Table 17). It is likely SG 21 was occupied over a longer stretch of time, but whether or not it was a continuous occupation is uncertain. It could very well be that the occupation of the site was longer, extending either earlier in time or later. The early date associated with STR 1 is comparable to a few other early dates from Uxbenká, particularly to the Stelae Plaza and a ceremonial cave across the valley (Kayuko Naj Tunich Cave), but directly visible from SG 21 (Table 1). This early date for SG 21 is especially interesting because there is little archaeological evidence for the Preclassic period in southern Belize. Other major polities in southern Belize and Uxbenká all have good later occupations, but not as much is known about what was going on earlier in the region (Braswell 2002; Hammond 1975; Jamison 1993; Leventhal 1990, 1992; Prufer 2002, 2005, 2007; Prufer et al. 2006). What has been found at Uxbenká is that there was an early presence in the area and the Maya were using and occupying SG 21, the Stelae Plaza and Kayuko Naj Tunich.

The later dates associated with the STR 3 area are comparable with dates from two other settlement groups (SG 23 and SG 24) at Uxbenká, a dated agricultural terrace and possibly to some later dates from Kayuko Naj Tunich Cave (Table 1). Late Classic dates are also associated with the figurines found at the site to date (from SG 21 and SG 24) (Table 17). During the Late Classic nearby Lubaantun was involved in prolific figurine production that resembles styles found at Uxbenká (Hammond 1981). This might suggest a relationship between the two polities during that time.

Comparisons between Tested Settlement Groups at Uxbenká

One settlement group should not be used to define all settlement groups at a site. If looked at in isolation, studies of SG 21 alone neglect suprahousehold influences and complexity (Canuto and Yaeger 2000:10). The community of settlements at Uxbenká should be studied comprehensively to best understand the ancient society. To date only two other settlement groups have been partially excavated – SG 23 and SG 24. Comparing SG 21 to other Uxbenká settlements begins the process of community studies at the site. As more settlements are excavated more can be learned about the relationships between the residents of Uxbenká.

SG 21 had a little variation in artifacts – manos and metates, hammer stones, chipped stone tools and debitage, undecorated or minimally decorated cooking and storage ceramics and a few exotic or ornamental pieces. These basic non-elite production and consumption artifacts are comparable to artifacts found at SG 23 and SG 24, also excavated during the 2007 field season (Figure 27). While formal cataloguing and statistical analysis of SG 23 and SG 24 artifacts and features has yet to be completed, preliminary analysis showed that the occupants

of SG 21 and those of SG 23 and SG 24 shared common everyday activities, but the artifacts at SG 23 and SG 24 also represent different experiences and lifestyles than SG 21.

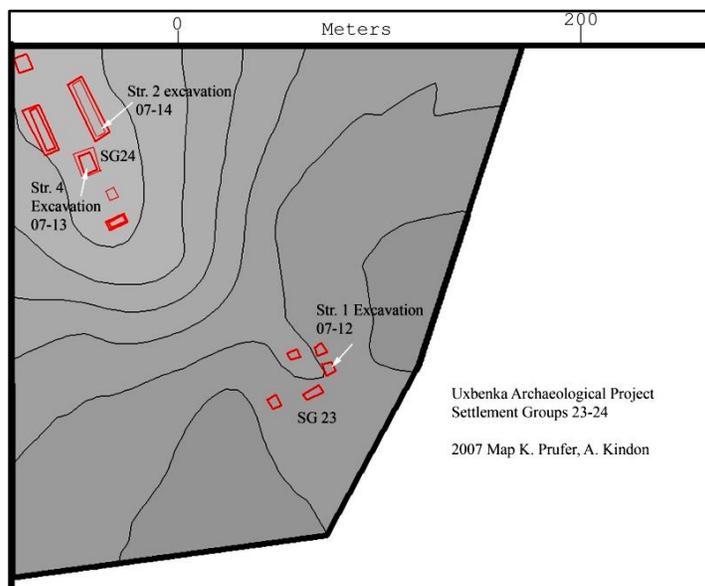


Figure 27. Topographic map of SG 23 and SG 24.

Excavations at SG 23 were limited to a 1 x 2 m unit that encompassed one capstoned crypt. According to field notes, the interment consisted of two individuals positioned one on top of the other – one male and one female, one large ceramic plate, one small ceramic bowl, a chert prismatic core, a pottery sherd concentration, an obsidian blade, a mirror fragment and a possible ceramic bead. There are many similarities between the SG 21 and the SG 23 burials. All three crypts were covered by capstones and the individuals buried in the crypts all had their heads pointing north. The SG 21 STR 1 burial and the SG 23 burial both contained simple ceramic vessels positioned on the lap or lower torso of the individuals. Pieces of plaster were found in the SG 21 STR 1 burial and the SG 23 burial suggesting they were both at one time plaster-lined.

SG 23 consisted of five structures surrounding a central patio area. The structure arrangement of SG 23 is tighter around the patio than SG 21. Collapse debris around the structures was made of both shaped and unshaped blocks. The architecture of SG 23 and SG 21 is similar. Many of the artifacts associated with SG 23 were collected from the surface. One figurine head was recovered. SG 23 generally had larger ceramic sherds than SG 21, but all of the identifiable rim shapes and sizes were similar to those found at SG 21 – simple jars and incurving bowls. Incised sherds found at SG 23 were also similar to those found at SG 21. The chert flakes were also similar. A chert blade fragment was recovered from SG 23. All of the blade fragments found at SG 21 were obsidian. More excavations need to be conducted at SG 23 to make a more comprehensive comparison.

SG 24 is approximately 100 m northwest of SG 23. SG 24 consisted of six total structures. Four structures surround a central patio area and two of the structures are larger than any found at SG 23 or SG 21. Two ancillary structures lie just south of STR 4. Two test excavations at SG 24 were completed in the 2007 field season. A 2 x 2 m unit was excavated in STR 4. The floor of the structure was earthen, like the floors in SG 21. The presence of a large amount of charcoal, smashed pottery and decaying plaster suggests that at least part of the structure was plastered and there was a burn event at one time. According to field notes, the kinds of pottery found had a Late Classic style. The second SG 24 test unit (1 x 2 m) was excavated at STR 3, a large platform that appeared to support two perishable superstructures. Extraordinary artifacts found in STR 3 included a figurine head, a figurine mold, a candelero, a piece of burnt copal incense and a polychrome pot sherd. According to field notes, these artifacts along with the eastern orientation of STR 3 in SG 24 suggest it was a possible household shrine.

The main differences between SG 21 and SG 24 were the larger number and size of structures at SG 24 and the presence of an eastern shrine. The artifacts found at SG 24 are similar to those found at SG 21, excluding those found associated with the shrine. A mano was found at SG 24, just as a mano fragment was found at SG 21. The metate fragment found at SG 24 was thinner than the two metate fragments found at SG 21. Chert flakes and shatter found at SG 24 were comparable to those found at SG 21. More area was excavated at SG 21, but there appears to be more obsidian blades found at SG 21 than SG 24. The ceramic sherds look similar between the two settlement groups. They both belong to domestic use bowls and jars. The styles of incised line decorations are comparable between the two settlement groups. There is a compilation of both poor and good quality sherds. Of the sherds that exhibit slip treatments, the colors between the two sites are similar – shiny and matte red, orange and shiny and matte black. Again, no formal qualitative analysis was done on ceramics from SG 24, but it appears there are more shiny black and red slipped sherds from SG 24.

Comparing SG 21 to SG 23 and SG 24 brings up some interesting observations in need of more formal research. Based only on architecture and the amount of time it would have taken to construct each settlement group, SG 21 appears to have the least social economic and social status during the Late Classic. The lack of an obvious shrine at SG 21 suggests it had lower ritual or religious status as SG 24 or it could have been attached to Group F's ritual architecture and practices. Based on artifacts, the two groups are relatively comparable. They both have a great deal of utilitarian artifacts, excluding the possible shrine area of SG 24. Utilitarian ceramics and chipped stone tools and debitage were found in each settlement group indicating

that even if SG 24 had more status, basic every day production and consumption activities took place there.

Social Variation at Uxbenká

Over time, a dichotomous elite/commoner interpretation framework developed in Mesoamerican archaeology. While it is easy to compare elite palatial site core architecture to diminutive peripheral commoner settlements, this might not be the best way to look at social variation among the ancient Maya (Yaeger 2000:25). Most archaeological evidence actually points to multiple distinguishable levels of wealth and power, not just elite and commoner (Ashmore 2007:6). A better way to discuss Maya social variation might be to use the terms elite and non-elite, with the understanding that both encompass a wide array of social and economic statuses.

To be sure, the ancient Maya who lived at Uxbenká belonged to different social groups. Not all settlements were created equally. In order to get a better idea of intra-site social variation excavations at the settlement groups were compared to data recovered from other areas in the site core, specifically the Stelae Plaza (Group A), which was a focus of the 2007 field season, and to Group F, which has not been excavated, but is the nearest architectural group to SG 21. As with SG 23 and SG 24, the data collected from the Stelae Plaza excavations has not been completely and formally catalogued and statistically analyzed to date. Based on observations in the field, excavations at the Stelae Plaza uncovered a great deal more architecture than any found at the settlement groups. Much more of the Stelae Plaza was plastered than the settlement groups. The Stelae Plaza was built on top of a steep hill, which

restricts its visual access from the ground. These characteristics suggest a much larger building time commitment and therefore the Stelae Plaza was a place associated with high status and high power. Artifacts from the Stelae Plaza, especially the ceramics, were more extraordinary in nature compared to those recovered from SG 21. Many of the ceramics from the Stelae plaza had appliquéd and incised designs. There were more polychromes. There were also less utilitarian vessel shapes, including incensarios.

SG 21 was a small settlement group in the shadows of big houses. The buildings and artifacts at SG 21 paled in comparison to elite and ceremonial structures at Uxbenká differentiating it from the upper crust of society. While the social stratification is obvious, it appears elites and non-elites were living in the same areas of the site during the Late Classic period. This find holds true across Classic period Mesoamerica. Elite structures are commonly found interspersed with non-elite residences (Haviland 1988; de Montmollin 1995). The location of SG 21 at Uxbenká is at the boundary between the site core and the periphery. A similar scenario is evident at Tikal. Even though a particular settlement group was near the urban center Haviland (1988:122) determined it was non-elite because 1) there was no great effort to build the five structures, 2) the plaza was not raised and plastered, 3) the residents were hard pressed to come up with articles to place in the burials of their dead, and 4) their material possessions included little beyond basic household implements made mostly of local materials except for manos, metates and obsidian prismatic blades. The characteristics of this particular Tikal settlement group greatly resemble SG 21 at Uxbenká.

During the Late Classic period Group F and SG 21 must have had some sort of relationship. They share close proximity and Group F had a ramp feature that connected it to

the SG 21 area. Group F was just up a steep hill from SG 21, but Group F had monumental architecture and all the buildings faced away from SG 21 as if denying visual and physical access from SG 21 (Figure 6). This idea of visual exclusion has been explored at other sites as a means to establish and maintain social boundaries between elites and non-elites (Awe 1992). Whether or not the inhabitants of SG 21 and Group F represent complete social opposites is uncertain at this point. It is clear they represent different layers in the social strata of Uxbenká and their close proximity likely provided a constant reminder of the inhabitant's social identities during the Late Classic period.

When SG 21 was first inhabited in the Preclassic, Group F did not exist, based on its visible Late Classic architecture. SG 21 had no structural relationship to Group F early on. So far, the only other structures and areas that are contemporaneous with SG 21's early occupation (A.D. 179-334) are the Stelae Plaza (Group A) and Kayuko Naj Tunich (Table 1).

Uxbenká evolved during the 7th century A.D. Based on architectural styles and radiocarbon dates (Table 1), Uxbenká initiated a number of building projects during the Classic period. The latest date from the Stelae Plaza is from the beginning of the Late Classic (A.D. 545-609), approximately fifty years before the dates from the STR 3 area at SG 21 (A.D. 646-772). It was at this time Group F situated itself on the landscape above SG 21. At least one of SG 21's structures (STR 3) and a midden are associated with this later time period establishing the contemporaneity of SG 21 and Group F. Other parts of Uxbenká that were also occupied during the Late Classic and have been dated were Kayuko Naj Tunich and settlement groups 23 and 24.

At this point it is uncertain what these changes meant for the inhabitants of SG 21 and Group F. One archaeologist working with similar a scenario developed an interesting

hypothesis for the purpose of small settlement groups near urban centers. In his excavations at Seibal, Tourtellot (1988a) postulated that the ancient Maya living in non-elite settlements near elite settlements were full-time specialists for the elites. If the non-elite settlement was a close cluster of structures then they were probably artisans. If there was more land associated with the non-elite settlement, such as at SG 21, then they were probably either part-time or full-time gardeners who supplied food to their superiors. This certainly cannot be proved at SG 21 and Group F at this point in time, but it is an intriguing hypothesis to consider.

Comparing SG 21 to Other Maya Non-Elite Settlement Groups

Inter-site comparisons can be informative because they allow sites to be measured against each other instead of just measured against themselves. However, there is no template for explaining Maya social variation. While all comparisons are relative, settlement groups, like SG 21 at Uxbenká, that have been determined to be non-elite based on intra-site comparisons can be compared to non-elite settlements from other sites to see if there are general trends across Mesoamerica. Different patterns can also be observed indicating regional or site-specific variation.

There is variation in the physical layouts of structures and extramural space in Classic Maya residential groups. In a case study of household arrangements from four Classic Maya sites (Copan, Cerén, Tikal and Cobá), Nancy Gonlin found more similarities than differences in the distribution of components of residential compounds (2004:233). When a residential group consists of multiple structures they are often situated around a patio (Marcus 2004:257, 259, 267, Figure 11.4, Figure 11.5). Patio groups were the main focus of domestic life. Structures around

a plaza could include dwellings, an altar, storage buildings, and a kitchen. The functions of the different structures were relatively consistent, but the inclusion/exclusion and organization of the structures in a plaza group varies between sites and even within a site.

The settlement group layout of multiple structures organized around a central open area is ubiquitous in Mesoamerica. While single unit dwellings are found, many consist of more than one structure (Ashmore 1981, 2007; Hammond 1975; Hendon 1987; Robin 1999; Tourtellot and Sabloff 1989; Yaeger 2000). In fact, at Seibal, 84.5% of the settlements had two to four dwellings (Tourtellot 1988a). General trends show that more than three-fourths of the structures in a settlement group served as dwellings and less than one-fourth were ancillary structures such as kitchens and shrines (Haviland 1970; Tourtellot 1988a; 1988b). Some settlement groups had a tight arrangement (Haviland 1963; Adams 1981), while other, like SG 21, were more spread out (Ashmore 2007).

The structures of Maya non-elite settlement groups have a basic mode of construction in common. Stone substructures and platforms were joined to an earthen core. Sometimes rubble fill was used to heighten the platform (Ashmore 2007; Tourtellot 1988a; Wauchope 1934). Floors were commonly tamped earth, plaster and gravel or stone slab with tamped earth and plaster and gravel being the most common among lower class settlements (Tourtellot 1988a; Wauchope 1934). Stone walls were made of stacked and shaped or unshaped limestone and sandstone. Some sites have higher stone walls that could have extended to the roof (Tourtellot 1988a). Other sites, such as SG 21, had stone wall bases with perishable wood wall and thatch roof superstructure sat on top (Ashmore 2007; Wauchope 1934). The structures at SG 21 had shallow stone wall bases that probably supported perishable superstructures.

In addition to structure layout and construction, another extremely common pattern among Mesoamerican non-elite settlements is the artifact assemblage (Ashmore 1981, 2007; Hammond 1975, 1981; Haviland 1963, 1970, 1985, 1988; Hendon 1987; Inomata and Stiver 1998; LeCount 1996; Marcus 2004; Robin 1999; Sheets 1992; Tourtellot 1988a; Tourtellot and Sabloff 1989; Wauchope 1934; Webster and Gonlin 1988; Webster et al. 1997; Yaeger 2000). Ashmore (2007:100-101, Table 5.9) has compiled a general artifact assemblage for non-elite dwellings (Table 16). The types of artifacts found associated residential groups are evidence of basic consumption, production and reproduction – the passing on of culture – activities. The vast majority of the artifacts are highly utilitarian in nature with little ornamentation and made of local materials, except for volcanic stone. Domestic artifacts were used for multiple activities such as food preparation, hunting, agriculture, building, spinning, storage, serving, cutting, slicing, chopping and recreation.

Four case studies highlight household archaeology from three Classic Maya sites – Copan, Quiriguá, San Lorenzo – and one site, Cerén, from the southern periphery of the Maya region. Quiriguá is site in southeastern Guatemala on the Motagua River. It had connections with the large city of Copan, but was relatively small for a Late Classic Maya center having an estimated population of 1600 (Ashmore 2007:112). Ashmore (2007) did a settlement survey of the periphery area of Quiriguá. She found 137 potential residences or associated residential features in survey. Residences at Quiriguá consisted of one or more structures, often arranged around some sort of patio. Artifacts she recovered from the sites were metates, manos, pottery, spindle whorls, figurines, chipped stone and hammerstones. Bone, charcoal, ash and food residues were recovered. Features she uncovered included hearths, middens, ancillary

structures, water basins, ovens, wells, subfloor burials, walls, storage pits and caches. She did not find exotic items such as sting-ray spines, eccentric flints, elaborate censers, stone monuments, tomb burials or caches. These finds indicate that the people living in the periphery area were non-elites. She found she could make many comparisons to the settlements at Copan, except that at Copan there is a much more visible difference between residential architecture and social status compared to Quiriguá (2007:118).

Copan is a site in northern Honduras near the border of Guatemala. An excellent continuum of social status is represented at Copan in its residential groups (Ashmore 2007; Webster and Gonlin 1988; Webster et al. 1997). Webster and Gonlin (1988) noted that cut stone is rare in rural sites as well as superstructure stone walls. Non-elites probably built their homes out of perishable materials like wood and palm branches. Webster and Gonlin discovered that an “ideal” platform configuration – a rectangular substructure with front steps, terrace, and interior bench is rarely found (1988:186). While they infrequently found residential groups arranged nicely around all four sides of a courtyard, they did generalize that structural groups are arranged, even if informally, around “some sort of exterior space of behavioral significance” (1988:186). Despite great variation, there were certainly common characteristics.

At Copan, Webster and Gonlin (1988) were surprised by the presence and absence of certain types of artifacts and features. They were expecting artifact assemblages between small rural sites and higher-status urban groups to be quite different. Obsidian was found widely at all sites as were the same kinds of utilitarian household items. Fine ceramic wares were present at all types of sites too, but the percentages were higher at the elite sites. Webster and Gonlin (1988) were surprised by the relative absence of large concentrated middens and hearths in the

rural setting. They posited this is because the extramural space in the rural area was much larger and people could dispose of their trash over a much wider space and further from the house. Hearths were probably moved around often because they were found in the periphery areas of the sites.

Cerén is a site in El Salvador on the southern periphery of the Maya region. It was buried by a volcanic eruption in 590 A.D. (Webster et al.1997:43). Whether or not the people of Cerén considered themselves Maya is up for debate, but the site has been used as an interpretation aid for Maya sites because it is so well preserved. Webster, Gonlin and Sheets (1997) made an excellent comparison of Copan and Cerén commoner households. This comparison is of interest due to the contrasts between to two sites. Cerén has superb preservation, but little is known about the regional settlement system. Copan has poorer preservation, but its regional settlement system is extremely visible and comprehensively understood. Cerén is a synchronic view – a snapshot in time, while Copan is a diachronic sample (1997:47).

There are differences in household structures between Copan and Cerén (Webster et al. 1997). Earthen mounds with clay platforms make up structure bases at Cerén and at Copan platforms are stone. Structures at both sites probably had the same type of wall construction with wooden walls covered with plaster and clay. Residents of both Copan and Cerén built multistructure household facilities with different buildings having different functions. At Cerén, building functions are very obvious. There were religious structures, a sweat house, a civic building, kitchens, storehouses, workshops and sleeping quarters.

Because Cerén was abandoned so quickly, there is a large volume of artifacts in and around the residential group. Activity areas can be discerned by the types of artifacts found in them (Webster et al. 1997). There are sleeping, food sharing, pottery making, animal processing, twine manufacturing, cotton-thread making, maize soaking, grinding and storage areas (1997:55). Extramural areas included corn milpas, cacao orchards and construction areas. The usefulness of Cerén lies in its ability to inform us about southern Mesoamerican commoner's daily lives. Copan is useful for studying the ordinary Maya as "social components articulated with a larger Maya regional sociopolitical system and how that system changed through time" (1997:59).

The final case study comes from the Late Classic site of San Lorenzo in the Cayo District of western Belize. Just as with the other case studies, settlement groups show quite a bit of variation, but there are general characteristics that tie them together (Ashmore 2007; Webster and Gonlin 1988; Webster et al. 1997; Yaeger 2000). At San Lorenzo residential groups were predominantly on mounds, but exhibited a wide range of construction techniques (Yaeger 2000:273). Most were wattle-and-daub, but some had masonry wall stubs and one structure even had a masonry roof. Platforms were mostly cut limestone blocks or cobble. Differences in architecture possibly reflect differences in social status (Yaeger 2000). Variations in artifact assemblages indicate certain households were more involved in specific activities, such as stone tool production.

Case studies from Quiriguá, Copan, Cerén and San Lorenzo comprise a typical sample of Mesoamerican non-elite households. While there is extensive variation, we can make some broad generalizations about residential structure construction and arrangement, artifact

assemblages and their uses, and the use of extramural spaces in residential groups for activities such as trash collection, craft production, cooking and gardening.

CHAPTER 5

CONCLUSION

SG 21 is just one settlement group at Uxbenká. In order to investigate larger questions about the identity and the social, economic and political organization of Uxbenká more settlement studies need to be done at the site. Too often settlement studies are fragmentary and solitary in nature (Yaeger 2000). Researchers often take them as individual investigations, but apply them in a cookie-cutter fashion ignoring the differences between settlements as well as dynamic interactions between them (Yaeger 2000). While a single study yields pertinent information, more comprehensive studies need to be conducted, especially in Southern Belize where the archaeological record is rich, but under evaluated.

The archaeology of Maya commoner settlement groups is an exciting and relatively new area of study. There are multiple theoretical perspectives for interpreting Maya household archaeology. Both ethnographic and archaeological data can inform us about ancient Maya residences. Based on the information I presented, while there is great variation among non-elite settlements, some generalizations can be made about Classic period Maya commoner households. Over the last couple decades, increasing work has been done with commoner households, but much more information stands to be learned about the domestic lives of the people who made up the majority of Maya society.

SG 21 provided information about non-elite settlements at Uxbenká from the time of the earliest known occupation of the polity through the Late Classic. The function of the structures and artifacts suggested non-elite residents at SG 21 during its 350-year occupation. The

presence of SG 21 on the periphery of the site core, nestled in the shadows of larger architecture suggests a complex relationship between the different social groups at Uxbenká. Continued excavation and survey will reveal increasingly more about where and how the ancient Maya lived at Uxbenká.

REFERENCES

LIST OF REFERENCES

Adams, R.E.W.

- 1989 Settlement Patterns of the Central Yucatan and Southern Campeche Regions. In *Lowland Maya Settlement Patterns*, edited by Wendy Ashmore, pp. 211-257. University of New Mexico Press, Albuquerque.

Ashmore, Wendy

- 1981 Some Issues of Method and Theory in Lowland Maya Settlement Archaeology. In *Lowland Maya Settlement Patterns*, edited by Wendy Ashmore, pp. 37-69. University of New Mexico Press, Albuquerque.
- 1988 Household and Community at Classic Quiriguá. In *Household and Community in the Mesoamerican Past*, edited by Richard Wilk and Wendy Ashmore, pp. 153-169. University of New Mexico Press, Albuquerque.
- 2007 *Settlement Archaeology at Quiriguá, Guatemala*. Quiriguá Reports, edited by Robert J. Sharer, Volume IV. University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia.

Ashmore, Wendy and Richard Wilk

- 1988 Household and Community in the Mesoamerican Past. In *Household and Community in the Mesoamerican Past*, edited by Richard Wilk and Wendy Ashmore, pp. 1-27. University of New Mexico Press, Albuquerque.

Ashmore, Wendy and Gordon Willey

- 1981 A Historical Introduction to the Study of Lowland Maya Settlement Patterns. In *Lowland Maya Settlement Patterns*, edited by Wendy Ashmore, pp. 3-18. University of New Mexico Press, Albuquerque.

Awe, Jaime J.

- 1992 Dawn in the Land Between the Rivers: Formative Occupation at Cahal Pech, Belize and its Implications for Preclassic Development in the Maya Lowlands. Ph.D. dissertation, Institute of Archaeology, University of London, England.

Bartlett, Mary Lee and Patricia 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, New York.

Binford, Louis

1962 Archaeology as Anthropology. *American Antiquity* 28:217-225.

1978 *Nunamiut Ethnoarchaeology*. Academic Press, New York.

Boas, Franz

1915 Summary of the Work of the International School of American Archeology and Ethnology in Mexico. *American Anthropologist*, New Series 17(2): 384-395.

Bourdieu, Pierre

1977 *Outline of a Theory of Practice*. Translated by Richard Nice. Cambridge University Press, Cambridge.

Braswell, Geoffrey

2002 *Pusilhá Archaeological Project*. The Foundation Granting Department: Reports Submitted to FAMSI. Foundation for the Advancement of Mesoamerican Studies, Inc. Electronic Document, <http://www.famsi.org/reports/00029/index.html>, accessed 3 March 2008.

Brumfiel, E.M.

1992 Distinguished Lecture in Archaeology: Breaking and Entering the Ecosystem – Gender, Class, and Faction Steal the Show. *American Antiquity* 94:551-67.

Brown, Kenneth

1989 *Buildings*. Springer-Verlag, New York.

Brown, Linda

2000 From Discard to Divination: Demarcating the Sacred Through the Collection and Curation of Discarded Objects. *Latin American Antiquity* 11(4):319-333.

Campbell, Lyle and Terrence Kaufman

1985 Mayan Linguistics: Where Are We Now? *Annual Review of Anthropology* 14:187-198.

Canuto, Marcello and Jason Yaeger

2000 Introducing an Archaeology of Communities. In *The Archaeology of Communities*, edited by Marcello A. Canuto and Jason Yaeger, pp. 1-15. Routledge, New York.

Coe, Michael

2005 *The Maya*. 7th ed. Thames & Hudson, New York.

de Montmollin, Olivier

1995 *Settlement and Politics in Three Classic Maya Polities*. Prehistory Press, Madison.

Demarest, Arthur

2004 *Ancient Maya: The Rise and Fall of a Rainforest Civilization*. Cambridge University Press, Cambridge.

Gann, Thomas

1925 *Mystery Cities: Exploration and Adventure in Lubaantun*. Gerald Duckworth & Co., London.

1928 *Maya Cities: A Record of Exploration and Adventure in Middle America*. Charles Scribner's and Sons, New York.

Gillespie, Susan

2000 Maya "Nested Houses": The Ritual Construction of Place. In *Beyond Kinship: Social and Material Reproduction in House Societies*, edited by Rosemary Joyce and Susan Gillespie, pp. 135-160. University of Pennsylvania Press, Philadelphia.

Gonlin, Nancy

2004 Methods for Understanding Classic Maya Commoners: Structure Function, Energetics, and More. In *Ancient Maya Commoners*, edited by Jon C. Lohse and Fred Valdez, Jr., pp. 225-254. University of Texas Press, Austin.

Halperin, Christina

2003a Motul de San José Figurine Production and Distribution. Paper presented at the 68th Annual Meetings of the Society for American Archaeology in the session "Testing Economic and Political Models of the Classic Maya Civilization: Results of the Motul de San José Project."

2003b Spinning and Textile Production at Motul de San José." In Proyecto Arqueológico Motul de San José, Informe #7: Temporada de Campo 2003, ed. by A. Foias and M. Moriarty. Report presented to the Institute of Anthropology and History, Guatemala. Williams College, Williamstown.

2007 *Investigating Classic Maya Ritual Economies: Figurines from Motul de San José, Guatemala*. The Foundation Granting Department: Reports Submitted to FAMSI. Foundation for the Advancement of Mesoamerican Studies, Inc. Electronic Document, <http://www.famsi.org/reports/05045/>, accessed 23 March 2008.

Hammond, Norman

1975 *Lubaantun: A Classic Maya Realm*. Monographs of the Peabody Museum, No. 2. Harvard University, Cambridge, MA.

1981 Settlement Patterns in Belize. In *Lowland Maya Settlement Patterns*, edited by Wendy Ashmore, pp. 157-186. University of New Mexico Press, Albuquerque.

Haviland, William

- 1963 Excavation of Small Structures in the Northeast Quadrant of Tikal, Guatemala. Ph.D. dissertation, Department of Anthropology, University of Pennsylvania, Philadelphia.
- 1970 Tikal, Guatemala and Mesoamerican Urbanism. *World Archaeology* 2:186-198.
- 1985 *Excavations in Small Residential Groups of Tikal: Groups 4F-1 and 4F-2*. Tikal Report No. 19, University Museum Monograph 58. University of Pennsylvania, Philadelphia.
- 1988 Musical Hammocks at Tikal: Problems with Reconstructing Household Composition. In *Household and Community in the Mesoamerican Past*, edited by Richard Wilk and Wendy Ashmore, pp. 121-134. University of New Mexico Press, Albuquerque.

Hendon, Juila

- 1987 The Uses of Maya Structures: A Study of Architecture and Artifact Distribution at Sepulturas, Copán, Honduras. Ph.D. dissertation, Department of Anthropology, Harvard University.
- 1992 Architectural Symbols of the Maya Social Order: Residential Construction and Decoration in the Copan Valley, Honduras. In *Ancient Images, Ancient Thought: The Archaeology of Ideology*, edited by A.S. Goldsmith, S. Garvie, D. Selin, and J. Smith, pp. 481-495. Proceedings of the 23rd Annual Chacmool Conference. Archaeological Association of the University of Calgary, Calgary.

Hodder, Ian

- 1985 Postprocessural Archaeology. *Advances in Archaeological method and Theory* 8:1-26.

Inomata, Takeshi and Laura R. Stiver

- 1998 Floor Assemblages from Burned Structures at Aguateca, Guatemala: A Study of Classic Maya Households. *Journal of Field Archaeology* 25(4):431-452.

Jamison, Thomas

- 1993 Symbolic Affiliation, Architecture, and Settlement Patterns in Southern Belize: Nim Li Punit and Xnaheb During the Late Classic. Ph.D. dissertation, Department of Anthropology, State University of New York, Albany.

Johnston, Kevin

- 2004 The "Invisible" Maya: Minimally Mounded Residential Settlement at Itzan, Petén, Guatemala. *Latin American Antiquity* 15(2):145-175.

Johnston, Kevin and Nancy Gonlin

- 1998 What Do Houses Mean? Approaches to the Analysis of Classic Maya Commoner Residences. In *Function and Meaning in Classic Maya Architecture*. edited by S.D. Houston, pp. 141-185. Dumbarton Oaks, Washington, D.C.

Joyce, Thomas A.

- 1933 Presidential Address. The Pottery Whistle-Figurines of Lubaantun
The Journal of the Royal Anthropological Institute of Great Britain and Ireland 63:xv-xxv.

Kindon, Andrew

- 2002 Sociopolitical Organization and Settlement Patterns in the Maya Mountains of Southern Belize. Ph.D. dissertation, Department of Anthropology, University of California, Los Angeles.

LeCount, Lisa

- 1996 Pottery and Power: Feasting, Gifting, and Displaying Wealth Among the Late and Terminal classic Lowland Maya. Ph. D. dissertation, University of California, Los Angeles.

Leventhal, Richard

- 1990 Southern Belize: An Ancient Maya Region. In *Maya Vision and Revision*, edited by Flora S. Clancy and Peter D. Harrison, pp. 125-141. University of New Mexico Press, Albuquerque.
- 1992 The Development of a Regional Tradition in Southern Belize. In *New Theories on the Ancient Maya*, edited by E.C. Danien and R.J. Sharer, pp. 145-154. The University Museum, University of Pennsylvania, Philadelphia.

Marcus, Joyce

- 2004 Maya Commoners: The Stereotype and the Reality. In *Ancient Maya Commoners*, edited by Jon C. Lohse and Fred Valdez, Jr., pp. 255-283. University of Texas Press, Austin.

Prufer, Keith M.

- 2002 Communities, Caves, and Ritual specialists: A Study of Sacred Space in the Maya Mountains of Southern Belize. Ph.D. dissertation, Department of Anthropology, Southern Illinois University at Carbondale.
- 2005 The Early Classic in Southern Belize: A Regional View from Uxbenká and Ek Xux. *Research Reports in Belizean Archaeology* 2:169-178. Institute of Archaeology, Belmopan, Belize.

Prufer, Keith M. (editor)

2007 *Report of the 2006 Field Season in the Toledo District, Belize, Central America*. The Foundation Granting Department: Reports Submitted to FAMSI. Foundation for the Advancement of Mesoamerican Studies, Inc. Electronic Document, <http://www.famsi.org/reports/06066/index.html>, accessed 23 March 2008.

Prufer, Keith, M., Andrew Kindon, Philip Wanyerka

2006 Uxbenká Archaeological Project (UAP): Site Settlement in the Rio Blanco Valley, Toledo District, Belize. *Research Reports in Belizean Archaeology*. Institute of Archaeology, Belmopan, Belize.

Pyburn, K. Anne

2004 Ungendering the Maya. In *Ungendering Civilization*, ed. by K. Anne Pyburn, pp. 216-228. Routledge, New York

Robin, Cynthia

1999 Towards an Archaeology of Everyday Life: Maya Farmers of Chan Nòohol and Dos Chombitos Cik'in, Belize. Ph.D. dissertation, Department of Anthropology, University of Pennsylvania, Philadelphia.

2003 New Directions in Classic Maya Household Archaeology. *Journal of Archaeological Research* 11(4):307-356.

Sabloff, Jeremy

1975 *Excavations at Seibal: Ceramics*. Memoirs of the Peabody Museum of Archaeology and Ethnology, Vol. 13, No. 2. Harvard University, Cambridge.

Schele, Linda and Mary Ellen Miller

1986 *The Blood of Kings: Dynasty and Ritual in Maya Art*. Kimball Art Museum, Fort Worth.

Schiffer, Michael

1972 Archaeological Context and Systematic Context. *American Antiquity* 37(2):156-165.

1987 *Formation Processes of the Archaeological Record*. University of New Mexico Press, Albuquerque.

1995 *Behavioral Archaeology first Principles*. University of Utah Press, Salt Lake City.

1996 Some Relationships Between Behavioral and evolutionary Archaeologies. *American Antiquity* 61(4):643-662.

1999 Behavioral Archaeology: Some Clarifications. *American Antiquity* 64(1):166-168.

Schortman, Edward

1993 *Archaeological Investigations in the Lower Motagua Valley, Izabal, Guatemala*. Quiriguá Reports III, University Museum Monographs. University of Pennsylvania, Philadelphia.

Schrag, Amber C. and Willa Trask

2008 In the Shadows of the Big Houses: Excavations at Non-Elite Settlement Groups at Uxbenká. Paper presented at the 73rd Annual Meeting of the Society for American Archaeology, Vancouver, British Columbia, Canada.

Sheets, Payson

1992 *The Cerén Site: A Prehistoric Village Buried by Volcanic Ash in Central America*. Harcourt Brace Jovanovich, Fort Worth.

Stephens, John Lloyd

1841 *Incidents of Travel in Central America, Chiapas, and Yucatan*. Harper and Brothers, New York.

1843 *Incidents of Travel in Yucatan*. Dover Publications, New York.

Stuiver, Minze and Paula J. Reimer

1993 Extended 14C Database and Revised CALIB Radiocarbon Calibration Program. *Radiocarbon* 35:215-230.

Thompson, J. Eric. S.

1931 *Archaeological Investigations in the Southern Cayo District, British Honduras*. Field Museum of Natural History Anthropological Series, Vol. 17, No. 3. Chicago.

1954 A Presumed Residence of the Nobility at Mayapan. In *Carnegie Institution of Washington Department of Archaeology Current Reports*, 2(19)71-87. Carnegie Institution, Washington, D.C.

Tourtellot, Gair, III

1988a *Excavations at Seibal: Peripheral Survey and Excavation Settlement and Community Patterns*. ed. by Gordon R. Willey, *Memoirs of the Peabody Museum of Archaeology and Ethnology*, Harvard University, Vol. 16. Harvard University Press, Cambridge.

1988b Developmental Cycles of Households and Houses at Seibal In *Household and Community in the Mesoamerican Past*, edited by Richard Wilk and Wendy Ashmore, pp. 97-120. University of New Mexico Press, Albuquerque.

Tourtellot, Gair, III and Jeremy Sabloff

1989 Approaches to Household and Community Structure at Sayil, Yucatan. In *Household and Community, Proceedings of the Twenty-first Annual Conference of the Archaeological Association of the University of Calgary*, edited by S. MacEachern, D.J.W. Archer, R.D. Garvin. University of Calgary Archaeological Association, Calgary.

Tozzer, Alfred

1941 *Landa's Relación de las Cosas de Yucatán*. Papers of the Peabody Museum of Archaeology and Ethnology, Vol. 18. Harvard University, Cambridge.

Triadan, Daniela

2007 Warriors, Nobles, Commoners and Beasts: Figurines from Elite Buildings at Aguateca, Guatemala. *Latin American Antiquity* 18(3):269-293.

Wanyerka, Phil

1996 The Carved Monuments of Uxbenká, Toledo District, Belize. *Mexicon* 18:29-35.

Wauchope, Robert

1934 *House Mounds of Uaxactún, Guatemala*. Carnegie Institution of Washington, Publication 436, Contribution 7. Washington, DC.

1938 *Modern Maya Houses*. Carnegie Institution of Washinton, Publication 502. Washington, DC.

Watanabe, John

1990 *Maya Saints and Souls in a Changing World*. University of Texas Press, Austin.

Wears, Priscilla

1977 A Typological Study of Some Mayan Figurines from Lubaantun, Belize. M.A. thesis, Department of Anthropology, University of Bradford, Bradford, England.

Webster, David and Nancy Gonlin

1988 Household Remains of the Humblest Maya. *Journal of Field Archaeology* 15(2):169-190.

Webster, David, Nancy Gonlin and Payson Sheets

1997 Copan and Cerén: Two Perspectives on Ancient Mesoamerican Households. *Ancient Mesoamerica* 8:43-61.

Wilk, Richard and William Rathje

1982 Household Archaeology. *American Behavioral Scientist* 25(6):617-639.

Willey, Gordon

1953 *Prehistoric Settlement Patterns in the Virú Valley, Peru*. Bureau of American Ethnology, Smithsonian Institution, Bulletin No. 155. U.S. Government Printing Office, Washington, D.C.

1981 *Maya Lowland Settlement Patterns: A Summary Review*. In *Lowland Maya Settlement Patterns*, edited by Wendy Ashmore, pp. 385-415. University of New Mexico Press, Albuquerque.

Wright, A.C.S., D.H. Romney, R.H. Arbuckle, and V.E. Vial

1959 *Land Use in British Honduras*. Colonial Research Publications No. 24. Her Majesty's Stationary Office, London.

Yaeger, Jason

2000 *Changing Patterns of Maya Community Structure and Organization at the End of the Classic Period: San Lorenzo, Cayo District, Belize*. Ph.D. dissertation, Department of Anthropology, University of Pennsylvania, Philadelphia.