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COMMUNITIES OF CONSUMPTION ON THE SOUTHEASTERN MESOAMERICAN
BORDER: STYLE, FEASTING, AND IDENTITY NEGOTIATION
IN PREHISPANIC NORTHEASTERN HONDURAS

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COMMUNITIES OF CONSUMPTION ON THE SOUTHEASTERN MESOAMERICAN
BORDER: STYLE, FEASTING, AND IDENTITY NEGOTIATION
IN PREHISPANIC NORTHEASTERN HONDURAS

A Dissertation Presented to the Graduate Faculty of the

Dedman College

Southern Methodist University

in

Partial Fulfillment of the Requirements

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Doctor of Philosophy

with a

Major in Anthropology

by

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Communities of Consumption on the Southeastern Mesoamerican
Border: Style, Feasting, and Identity Negotiation
in Prehispanic Northeastern Honduras

Advisor: Professor Brigitte Kovacevich

Doctor of Philosophy conferred August 6, 2019

Dissertation completed July 1, 2019

Prehispanic northeastern Honduran communities were situated at the border between southeastern Mesoamerica and lower Central America. Previous studies of pottery style suggest that local groups shifted their affiliation from north to south at the end of the Classic period (ca. AD 1000). This study examines the contexts in which pottery, as a medium for style, was used, and how the food people prepared, stored, or served in these vessels offers a perspective complementary to pottery style for understanding how identity was actively negotiated in this region. In this view, other parts of the foodways system – the foods chosen to be processed or cooked in pottery, the particular methods of preparation or serving – can also have their own form of style that has the potential to be as important in materializing identities as the designs on pottery vessels.

Excavation at the Selin Farm site documented shell midden mounds containing large deposits of shell, pottery, and other materials disposed of as part of feasting events that took place throughout the Selin Period (AD 300-1000). These stratified deposits are the result of repeated consumption and disposal practices that represent groups of people that came together to form a community of consumption in the past. Data from excavation, lithic and faunal analyses, and typological, morphological, and residue analyses of pottery point to variation in the

form, content, and motivations behind these events over space and time. By tracing the nature and scale of these feasting events over time and space at Selin Farm, this study provides data critical to situating the processes behind identity negotiation at the local level and tying the micropolitics of individual events to broader social and political changes in the region.

The timing of changes in local pottery styles and foodways suggests they occurred partly as a result of interaction with groups to the north and south that both spoke to cultural understandings and similarities while also highlighting differences and reinforcing boundaries. However, variation in feasting practices across contexts at Selin Farm demonstrates, for the first time, internal heterogeneity within a northeastern community that helps explain processes of change without relying exclusively on external forces, while also not denying their influence in shaping local change.

The study of identity negotiation at Selin Farm demonstrates that aggrandizers, expansionist chiefdoms, or outside influences were not responsible for cultural change in the small-scale societies of Central America. The people who lived and feasted at the site were not passive recipients of innovations from the north or the south. There were complex internal social and political strategies being employed by individuals and groups that led to the structural changes that took place in the region. Through interaction with each other and with outside groups they were continually guiding the formation, maintenance, and transformation of group identity through the manipulation of shared practices and everyday activities, punctuated by the feasting events described here.

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To Gif, for being by my side (often literally) through this whole thing.

CHAPTER 1 :
INTRODUCTION

This dissertation investigates the negotiation of identity by prehispanic northeastern Honduran communities, situated at the border between Mesoamerica and lower Central America, during a period of intensive local and regional social change (Figure 1-1; Table 1-1). Previous research suggests that northeastern groups participated in networks of interaction with Mesoamerican groups to the north throughout the Classic Period (AD 300-900). By AD 1000, however, local networks had shifted south towards lower Central America. Current understandings of this shift in affiliation are drawn primarily from studies of pottery style (Beaudry-Corbett and Cuddy 2001; Cuddy 2007; Epstein 1957; Healy 1993).

Rather than consider ceramic style in isolation, the present study investigates northeastern Honduran pottery as part of a foodways system. Foodways are defined as the food-related resources, technologies, and practices specific to a group (Goody 1982). Like other forms of material culture, food is used in the negotiation of social identity. The choices that people make about the resources they use and how they prepare and serve them can create, reinforce, or alter social identities (Hastorf and Weismantel 2007; Twiss 2007; Twiss 2007, 2012;). This study examines the contexts in which pottery, as a medium for style, was used, and how the food people prepared, stored, or served in these vessels offers a perspective complementary to pottery style for understanding how identity was actively negotiated in the past.



Figure 1-1. Northeastern Honduras in relation to Mesoamerica and lower Central America.

Identity is defined as an expression of group membership that aims to distinguish one group from another and is discussed here at the level of large-scale social groups (Barth 1969; Insoll 2007; Jones 1997; Mills 2007; Shennan 1989; Stark 1998). Northeast Honduras is an ideal setting for addressing the intersection of identity, affiliation, and material symbols as these

communities were positioned at the border of two expansive cultural areas with distinct histories of pottery styles and foodways (Sheets et al. 2011; Sheets et al. 2012; Staller and Carrasco 2010).

The use of painted pottery connects this region to other groups in Southeastern Mesoamerica, including northwestern and central Honduras (Hirth et al. 1993; Joyce 1993, 2017), particularly during the early phases of occupation in the region (Early and Basic Selin, AD 300-600; Table 1-1). Painted pottery traditions in neighboring areas were used in feasts – communal eating and drinking events (Joyce 2017). Differences in the common vessel forms of eastern Honduran painted pottery, which features dishes and large jars as opposed to vases and bowls, point to likely differences in the types of foods that were featured in northeastern communities (Joyce 2017:238).

Table 1-1. Chronologies of Mesoamerica, northeastern Honduras, and lower Central America (after Cuddy 2007: Table 4.1).

<i>Calendar Year</i>	<i>Maya Periods</i>	<i>Ulua Ceramic Phases</i>	<i>El Cajón Ceramic Phases</i>	<i>Northeast Honduras</i>	<i>Central America</i>
1530	Late Postclassic	Naco		Late Cocal	Period VIb
1400					
1200	Early Postclassic	Botija		Early Cocal	Period VIa
1000	Terminal Classic	Santiago	Late Sulaco	Transitional Selin	Period V
800	Late Classic	Late Ulua	Middle Sulaco	Basic Selin	
600	Middle Classic	Early Ulua	Early Sulaco	Early Selin	Period IVb
400	Early Classic	Late Chamelecon	Late Yunque	Cuyamel	
200					

Previous research in the northeast suggests that political and social organization also differed relative to other groups in the region. In the northeast, local leaders employed corporate political strategies that promoted group cohesion and helped to maintain relatively egalitarian social organization for longer than in neighboring areas (Begley 1999; Cuddy 2007). Unlike groups to the north that underwent dramatic processes of decentralization and depopulation at the end of the Classic period (i.e., Aimers 2007; Dixon 1992; Goodwin et al. 2020; Joyce 1986; Urban and Schortman 2004; Stockett 2010), northeastern Honduran groups saw a marked increase in social complexity at this time, as evidenced by the appearance of the first planned settlements and elite burials (Healy 1984a, 1984b). The timing of these changes coincides with a shift in the local pottery styles towards incised and punctate designs that resemble traditions in lower Central America to the south.

Together, these differences suggest that northeastern Honduran groups were practicing unique styles of food consumption, reflected in their use of forms and designs specific to this area. These practices were distinct from those in neighboring areas and are associated with a unique social and political organization and long-lived cultural stability in the northeast. My research investigates what this community of consumption (Lave and Wenger 1991; Mills 2016; Roddick and Stahl 2009; Wenger 1998) looked like and how it varied over time and space during the period leading up to the documented shift in pottery style from north to south (Epstein 1957; Healy 1993, 1984a, 1984b). The goal of this research is to understand how micro-scale events like feasts brought together pottery style and food style to create, maintain, and transform northeastern communities of consumption and how changes at this scale were related to broader scale changes in social identities and political organization that took place in the region at the end of the Classic period (Transitional Selin, AD 800-1000; Table 1-1).

In addition to pottery style, this study uses foodways as an avenue for exploring identity and identity negotiation in northeastern Honduran communities. Because of the bodily need for food, our interactions with food occur frequently and foodways may actually be a more sensitive indicator of shifting affiliations than pottery style (Hastorf 2017; Twiss 2007, 2012). Affiliation with groups to the north and south is explored through an examination of the use of two significant crops tied to those areas: maize and manioc. Maize was central to Mesoamerican diets while manioc was a lower Central American and South American staple. Relative emphasis on each crop as well as the style of preparation and consumption of each provide information on how local practices were similar to or distinct from those in neighboring areas.

Based on previous interpretations of the social and political organization of northeastern communities, I expected feasting practices to emphasize large, communal consumption events, with limited evidence for restricted access to foods or styles and community-wide similarities in feasting practices. Additionally, foodways and pottery styles were expected to reflect similar affiliations at similar times and to be used in similar ways across contexts. Alternatively, if particular styles or foodways were restricted to particular segments of society (e.g., “haute cuisine” in LeCount 2001; Joyce and Henderson 2007), a reexamination of our understandings of the strategies used by local actors would be necessary. Information on the use contexts of both pottery style and foodways helps us understand how these symbols were combined and either recursive in the creation of meaning (i.e., both suggesting the same external affiliation at the same time and in the same settings) or a point of conflict in identity negotiations. By looking for intra-community differentiation in foodways and style, the present study privileges internal processes in local change, while not ignoring the importance of regional influences and affiliations.

1.1 Selin Farm archaeological site

For the present study, shell midden mounds at the Selin Farm archaeological site (Figure 1-2) were excavated to gain contextual information on how pottery was used. The site was inhabited by northeastern Honduran populations from around AD 300 to 1000 (Table 1-1), weathering the turbulent Classic to Postclassic period transition on the southeast Mesoamerican border. This village site contains around 30 mounds, divided in composition between clay house platforms and mounded trash middens composed of stratified deposits of shell, ceramic, and other refuse (Figure 1-3).

The nature of the shell midden deposits at the site suggests these contexts are representative of the ritual discard of feasting refuse that resulted in purposefully structured deposits. Indicators of feasting include the presence of vast quantities of shell remains and ceramic materials, and the presence of ritual paraphernalia such as whistles and incense burners. There is also evidence for careful and rapid deposition such as overlapping radiocarbon dates from the top and bottom of mounds, presence of whole vessels, lack of soil development, and a high level of preservation of materials including bone and charred plant remains (Hayden 2001; Twiss 2007, 2012). The ritual significance of these mounds is attested to by the fact that they were left undisturbed, with little evidence for post-depositional processes from human activity, despite continual occupation of the site for nearly seven hundred years.

Feasting in northeastern Honduras had not been documented prior to the current study, despite previous excavations at Selin Farm (Healy 1978, 1983). In addition to identifying feasting contexts at the site, evidence for variation in the scale, content, and form of feasting over time and space was documented using data from faunal, lithic, ceramic, and residues analyses.



Figure 1-2. Map of northeastern Honduras with the location of the Selin Farm site.

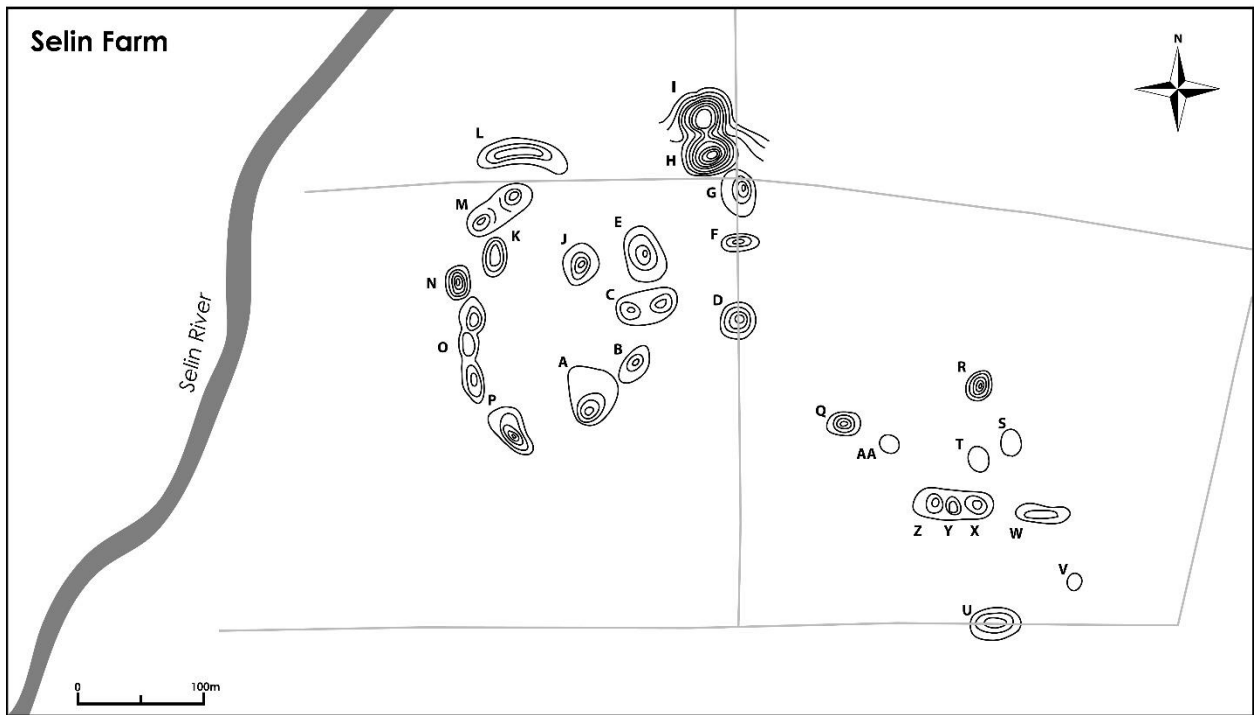


Figure 1-3. Map of the Selin Farm site (based on Healy 1978a: Figure 3).

1.2 Organization of the dissertation

The dissertation is organized into twelve chapters, including the introduction and conclusion. Chapter 2 begins with a discussion of the physical setting of the research area, including information about its location and climate that is relevant to human settlement patterns. To situate the northeastern region within existing scholarship, this chapter also considers the history of Southeast Mesoamerica as a concept within archaeological studies – tracing how it has been perceived by archaeologists over the past century and how this has affected the way research into Northeastern Honduras, an area seen as peripheral to large societies like the Maya to the north, has been conducted. Trends in the explanation of cultural development in lower Central America are also introduced to provide a balanced view of the northeast as a border region between these two areas. Finally, what little we know about local prehispanic communities in northeastern Honduras is covered, with particular attention to information that pertains to identity of local groups within the region. This provides the necessary context for understanding the current research questions outlined above.

Northeastern Honduras is placed within the broader contexts of Central American foodways in Chapter 3. The goal of this chapter is to outline how we might further distinguish between expressions of affiliation with other groups by studying ceramics as part of a foodways system, rather than as isolated objects separated from their original contexts of use. Foodways traditions to the north in Mesoamerica and south in lower Central America are summarized, followed by what is known about northeastern Honduran foodways in the past. A section on behavioral chains of dishes and meals draws on local and regional ethnographies, historic accounts, and archaeological studies to create conceptualized scenarios of processes of food preparation, consumption, and disposal as they might have taken place in the past. These

heuristic devices are drawn upon both in the development of hypotheses and expectations in the subsequent chapter as well as in the discussion of data later in the dissertation.

Chapter 4 provides a brief summary of the theoretical perspectives relevant to understanding the communities of consumption approach taken in this dissertation. The goal of this chapter is to demonstrate how pottery and food styles can help elucidate how identity was negotiated in border communities through the maintenance and transformation of shared group practices that responded to but were not determined by interaction with other groups. This chapter starts by addressing the broad ways in which archaeologists have traditionally approached the intersecting topics of style, borders, and identity. It then moves into a discussion of the issues related to these traditional approaches and introduces the idea of communities of practice as a productive alternative to conceptualizing how communities situated at borders organize themselves. Advantages to this approach are summarized along with existing archaeological applications that demonstrate the utility of the concept within this field of study. It is here that specific terms – boundary objects and brokers – are defined to help the reader understand the role of material objects, in this case pottery and food, in this approach. From there, a specific type of community of practice is introduced, the community of consumption. How this differs from other communities of practice is detailed, with particular attention to how this specific idea relates to existing bodies of theory within archaeological studies of feasting.

In the final section of this chapter, Southeast Mesoamerica and Northeastern Honduras are considered within the framework of communities of practice by synthesizing recent studies from Southeastern Mesoamerica and detailing what is known about northeastern Honduran traditions of consumption. Honduran painted pottery is conceptualized as a boundary object that connects local communities of practice within the northeastern region to larger social and

political networks along the Southeast Mesoamerican border. At the conclusion of this chapter, the hypotheses and expectations developed for the present study are detailed and the methods through which data were collected to address these are introduced. Summary tables of the attributes, analyses, and expectations for the scale, form, and content of the communities of consumption that are investigated as part of this study are provided here. These help frame the subsequent data chapters.

In Chapter 5, a summary of previous work at the Selin Farm site is presented to provide the reader with the necessary information to understand the investigations undertaken as part of this study. This includes a brief occupational history of the region and the site, as well as an overview of previous excavations at the site that contributed to the selection of excavated contexts for the current study. General excavation methodology is presented here as well. Finally, the reason for the selection of each excavated context is described and a summary of excavations is outlined.

Chapters 6-10 constitute the data chapters of this dissertation. Excavation data serve primarily to demonstrate evidence for large scale feasting at Selin Farm. Faunal and lithic data serve a broader array of functions related to understanding the form and content of feasts at the site, in addition to the size of the groups involved in feasting events. Data gathered from diverse ceramic analyses provide relative chronologies of excavated contexts, facilitate inter-regional comparisons, inform on scale, form, and content of feasts, and provide analytical units for residue analyses. Diversity in assemblage composition was explored using type-variety, morphological, and functional analyses. Residue data are used to understand resource use and to make associations between specific resources and pottery forms, contexts, or occupation phases.

The specific methods employed for each category of data are detailed in the corresponding chapter.

Chapter 11 synthesizes the data presented in the previous chapters and places them into their broader archaeological and anthropological context. The identification and categorization of feasts in northeastern Honduras is explored using the indicators and models outlined in Chapter 4. The model for comparing the group size and level of sociopolitical competition (following Kassabaum 2014) is employed to assess variation in feasting practices at Selin Farm. Using this model, the history of feasting at the site is presented and variation over time and space are discussed. Lastly, the significance of these feasting events for the negotiation of local group identity and how these processes articulated with broader social and political changes are considered.

Finally, Chapter 12 presents the conclusions of the dissertation by summarizing findings and explicitly addressing how the theoretical frameworks of the dissertation contributed to new interpretations of identity in this border area. It also emphasizes the utility of these findings beyond the region itself, as similar processes of effective identity negotiation by small-scale societies in border regions occurred and continue to occur all over the world. Finally, this chapter outlines ongoing projects related to this dissertation and then suggests how future studies might build on new understandings of local populations and their adaptations to this border setting as presented here. Ties to and implications for modern descendant communities are considered.

CHAPTER 2 :
FRONTIERS, PERIPHERIES, BUFFERS, AND BORDERS: SITUATING PREHISPANIC
NORTHEASTERN HONDURAS

In this chapter, I draw on studies within and outside of anthropology to summarize our current understandings of the natural and cultural contexts of prehispanic northeastern Honduran communities. A discussion of the archaeological conceptualizations of this border region from the Mesoamerican and lower Central American perspectives help situate the northeast region within the existing literature. Previous archaeological investigations and our resulting understanding of the culture history of the area provide the necessary background for research undertaken as part of the current study. Similarly, current understandings of local identities, drawing from studies of pottery style, help provide context for the research questions addressed by this dissertation.

2.1 Geographic and environmental setting

The northeast region of Honduras, which includes the Bay Islands, is dominated by five southwest-northeast running mountain ranges and four hydrologic systems that drain into the Caribbean. These rivers are generally known, from west to east, as the Aguan (draining the highlands of the Department of Yoro), Sico (from the highlands of Agalta), Paulaya (which joins the Sico near the coast to form the Rio Negro), Platano, Patuca (which along with the Guayape drains the Olancho region), and the Coco (which forms the border between present day Honduras

and Nicaragua; Davidson 1991; Dennett 2007; Stone 1941). In most places the mountains remain below 1,500 meters. The topography in the interior region is irregular and difficult to traverse, with limited intermountain flatlands (Davidson 1991: 207). The Bay Islands, including Utila, Roatan, Barbareta, and Guanaja, are predominantly limestone formations of varying topography.

Vegetation varies from dense tropical rain forests, to savannas with pine and hardwood/oak, and scrub growth at higher elevations (Burgos 2011:18). The mainland adjacent to the Caribbean is dominated by the coastal plain, tropical lowlands with numerous lagoons, and mangrove swamps. Specifically, the Guaimoreto Lagoon, adjacent to the Selin Farm archaeological site, provides a uniquely rich ecosystem that continues to be exploited today. Freshwater enters the lagoon from several small streams, the largest of which is the Silin River from the Capiro and Calentura peaks, the westernmost peaks of the Cordillera Nombre de Dios. The lagoon is connected to the Bay of Trujillo through a natural inlet on its southwestern side. In addition to abundant mangrove systems, the Bay Islands and the north coast around the Point of Caxinas, north and east of the bay, are known for the presence of an extensive coral reef and sea grass beds (Rodriguez 2018). These are home to diverse and abundant wildlife. Previous research confirms that past populations exploited all of these ecological niches (Healy 1983).

Precipitation across the region varies by elevation and is seasonal. Sharp contrasts exist between the wet (June-December) and dry (January-May) seasons (Burgos 2011:14). Today temperatures and rainfall are more erratic than they were historically. The coastal plain is particularly susceptible to intense, episodic flooding, exemplified by the aftermath of Hurricane Mitch in 1998 (Doyle et al. 2002). These hazards are apparent archaeologically, with a record of deeply buried sites throughout the Aguan Valley (e.g., Chiapas Farm, Cuddy 2007:52; Sharer et

al. 2009). Our understanding of reactions to these by local populations is limited by a lack of research in the region, as discussed below.

2.2 Cultural setting

Archaeologically, northeastern Honduras has typically been defined by a shared material culture that includes similarities in pottery styles from initial occupation (around AD 300) through European contact. The northeast region stretches from the Bay Islands and the mainland along the Atlantic coast of Honduras east of the modern town of Trujillo, as far south and inland as the town of Juticalpa, department of Olancho and as far east as the Patuca River, if not further to the Rio Coco. The area encompasses the sprawling, dense tropical forests of La Mosquitia, which are little known (although see recent research by Carter et al. 2016; Fernandez Diaz et al. 2018). The major waterways were particularly important for indigenous trade and travel and were likely significant natural boundaries or borders for prehispanic groups, much as they are today (Davidson 1991). This is underscored by the clustering of archaeological sites along major rivers and tributaries. Little is known about the region between Trujillo and the mouth of the Ulua River to the west, although several ongoing projects are beginning to address these major gaps (Cruz Castillo 2018; Fecher et al. 2017, 2018; Reindel et al. 2017).

Efforts to understand northeastern Honduran populations have focused almost exclusively on elite politics in relation to broader regional influences from Mesoamerica and lower Central America, as interpreted from ceramic styles and motifs (Strong 1935; Cuddy 2007). Early definitions of Mesoamerica (Kirchhoff 1943) and the Intermediate Area – a broader archaeological region that encompasses northern South America – (Haberland 1959; Lange and Stone 1984; Rouse 1962; Willey 1971), depicted eastern Honduras as the “frontier of the

frontier”, not entirely attributable to either category (Healy 1984c; 1993). Below I summarize understandings of and approaches to culture areas to the north and south that help situate northeastern Honduras both culturally and in terms of scholarship.

2.2.1 Southeastern Mesoamerica

Southeastern Mesoamerica was originally defined as the southernmost limit of the Mesoamerican culture area. This region was initially conceived of as the cultural periphery of the more complex societies in Mesoamerica and was accordingly referred to as the Southeastern Maya Periphery (Lothrop 1939). This area was delineated according to language groups at the time of contact, apparent shared religious or ideological traits, and cultural characteristics that included sedentism and agriculture (Kirchoff 1943, 1952, 1960; Willey et al. 1964). The presence or absence of these complex cultural traits was then used to define groups throughout the area as Maya or non-Maya (Baudez 1970; Hay et al. 1940; Sauer 1959; Spinden 1924).

Today, southeastern Mesoamerica is an archaeological and geographical concept referring to an area that encompasses modern-day eastern Guatemala, western Honduras, and most of El Salvador (Goodwin et al. 2020). The delineation of the southern ‘border’ of Mesoamerica has, at different times, been drawn along the Ulua and Lempa rivers of western Honduras and El Salvador (Fox 1981; Lange and Stone 1984), the Choluteca river in southern Honduras (Glass 1966), or the Nicoya Peninsula in northwestern Costa Rica (Fowler 1991; Lange 1979).

Early research in the region tended to privilege external influences as the driving factor in local social and political developments (Strong 1935; Stone 1957) and, because of this, studies of interaction and diffusion were common. Southeastern Mesoamerica was conceptualized as a

buffer zone between Mesoamerican and Intermediate Area traditions and the goal of most studies was to trace when and where the characteristics of each either appeared or began to dissipate as a proxy for areas of influence of cultures to the north or south (Baudez 1970; Lange 1979).

By the 1980s, much of the work in the region focused instead on highlighting the potential for adding to anthropological understandings of interactions between state and non-state level societies (i.e., Andrews 1976; Boone and Willey 1988; Creamer 1987; Creamer and Haas 1985; Demarest 1988; Graham 1993; Healy 1984a; Helms and Loveland 1976; Hirth et al. 1989; Lange 1984, 1992, 1993, 1996; Lange and Stone 1984; Linares 1979; Robinson 1987; Schortman and Ashmore 2012; Schortman and Urban 1994, 1996; Schortman et al. 1986, 2012; Sharer 1974, 1978, 1984, 1992; Sheets 1979, 1982, 1992; Urban and Schortman 1986, 1988). This work focused primarily on demonstrating the multidirectional nature of the interactions taking place in the region and on questioning the assumed marginality and homogeneity of the groups living there. Accordingly, the meaning and utility of terms like ‘periphery’, ‘frontier’, and ‘buffer’ were reconsidered (Lange 1979, 1979; Schortman and Urban 1986) and by the 1990s the more neutral ‘Southeastern Mesoamerica’ came into common use (Fowler 1991; Schortman and Urban 1994).

Within the past few decades, research in this area has contributed significantly to scholarship on identity in border regions. These studies demonstrate how the peoples of southeast Mesoamerica constantly manipulated their identities to project their independence from their neighbors to the north (e.g., Schortman and Nakamura 1991; Schortman et al. 2001). In this way, research in the region shifted focus to the internal trajectories and dynamics of southeastern Mesoamerican societies (e.g., Joyce 1993; Lange 1992, 1993, 1996; Sheets 1992). These studies were foundational to the research presented in this dissertation.

A growing trend towards an examination of the relationships between peoples in southeastern Mesoamerican and groups in Nicaragua, Costa Rica, Panama, and Colombia has also contributed significantly to the present study (i.e., Healy 1992; Healy et al. 1996; Joyce 1993, 2013, 2017, 2018; Lange 1992, 1993). My research draws on these advances to add agency, internal factors for change, and new approaches to identity to our understanding of groups that inhabited the northeastern region of Honduras. While typically considered beyond the border of southeastern Mesoamerica, my work demonstrates that local groups in this area were tied into Honduran traditions that were shared among many of the southeastern Mesoamerican groups, not only during the Classic period (AD 200-950) but into the early Postclassic period (AD 950-1520) as well.

2.2.2 Lower Central America

Much like southeastern Mesoamerica, lower Central America has traditionally been defined in contrast to the areas that lie beyond its borders. The region was previously referred to as the Intermediate Area, between the intrinsically superior cultures of Mesoamerica and the Andean area. Alternatively, it has been known as the 'Chibcha' culture area, which was also originally defined by Kirchhoff (1943) in the same paper that is oft-cited for his classic definition of Mesoamerica. Lower Central America is a more commonly used term (Lange and Stone 1984), although the Isthmo-Colombian area, argued for by Hoopes and Fonseca (2003) incorporates parts of northern South America on the basis of cultural continuities that considers, but is not limited to, shared languages. Unlike previous revisions of the overarching term that used specific linguistic terms, namely Chibcha or Chibchan, this term recognizes that other

languages and populations, though not as large or long-lived in the region, have contributed to its development.

The descendant Pech are the northernmost Chibchan-speaking group in the Americas (Figure 2-2) and are located at the linguistic frontier between South American and Mesoamerican languages, namely the Lenca, Jicaque, and Misumalpan. Chibchan languages, once thought to have originated in South America, are now known to have their origin in southeastern Costa Rica and western Panama (Constenla 1991). The Pech language represents the first instance of fragmentation among the Proto-Chibchan language stock, estimated to have started at around 4000 BC through glottochronological analyses (Constenla 1995; Holt 1986; Holt and Bright 1976). Recent genetic studies support these affinities and differences, and the endogenous development of Chibchan groups in lower Central America (Melton 2008; Reich et al. 2012).

Attempts to classify the region based on shared cultural traditions were problematic, given that many of the ascribed features were superficial (e.g., Willey 1971:277-278; see also Hoopes and Fonseca 2003:51; Sheets 1992). These arguments were based on sporadic research in the region and surrounding areas to the south and east along the Atlantic watershed of Nicaragua and Costa Rica (Lothrop 1926; Stone 1941; Strong 1935; Spinden 1925). These areas are assumed to have shared sociopolitical characteristics with South American groups, most notably a chiefdom level of political organization. Researchers working in this region continue to identify problems with the underlying assumptions that form the basis of these groupings and broad narratives about regional trends, such as the timing and nature of the spread of maize agriculture and its relationship to increasing social complexity that to date have little supporting evidence from archaeological investigations (Hoopes 1996; Lange 1996; Lentz et al. 1997).

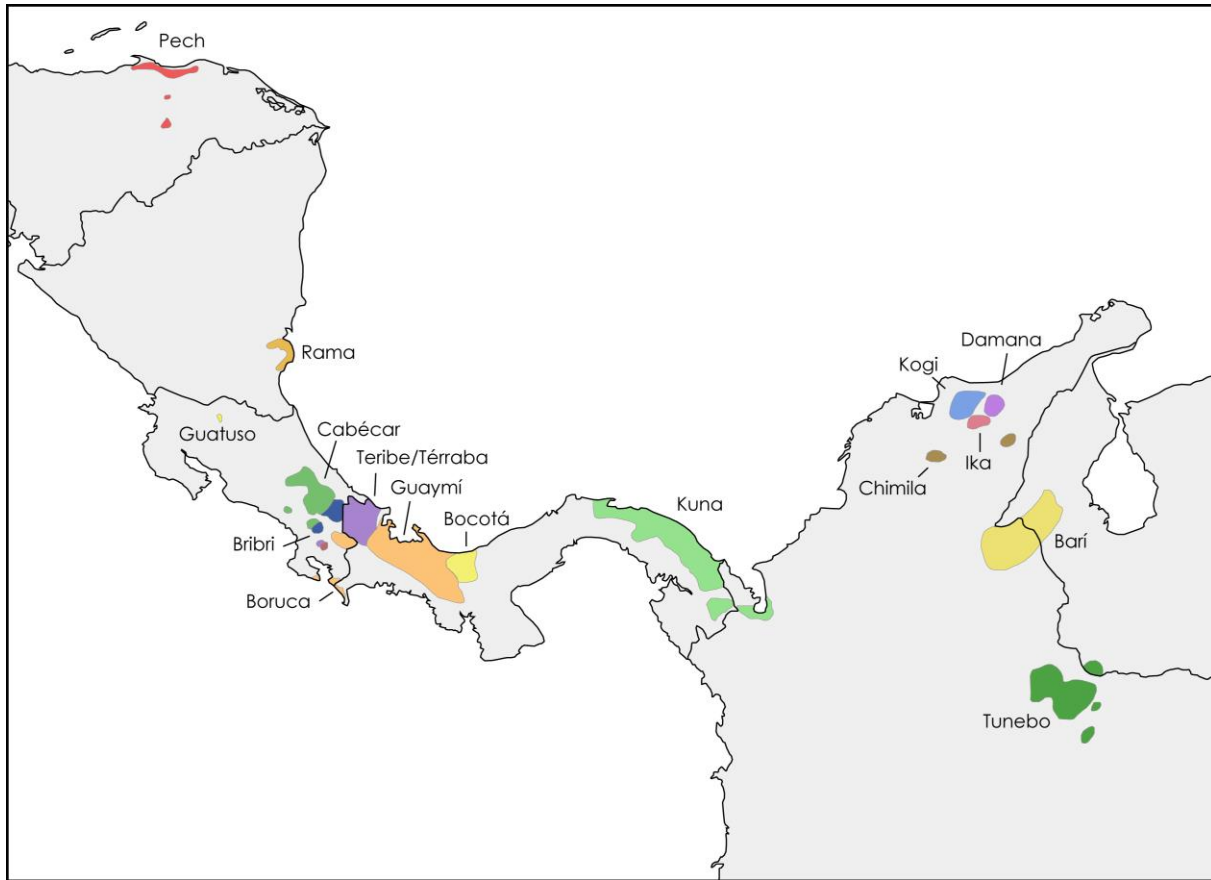


Figure 2-1 Current distribution of Chibchan languages in the Americas (adapted from Pache 2018).

Despite local variations in language, political organization, and subsistence practices, the cultures of this region are said to share a ‘diffuse unity’, connected by long-term *in situ* development that builds on shared histories and origins and similar cultural traditions that stem from that distant but common linguistic and genetic heritage (Hoopes and Fonseca 2003). Much like the pan-Mesoamerican beliefs that predate regional diversification, the iconography of this region suggests shared expressions of common ideas and possibly a pan-Chibchan worldview, which emphasize shamanistic practices but not centralized rule (Hoopes 1996).

One of the most prominent features of this unity is a reliance on root crops, like manioc, and the extensive use of tree crops. More than resource use however, the region is united by

consumption of *chicha*, or beer, and is distinguished from Mesoamerica by the use of maize primarily for *chicha* as opposed to *masa* for tortillas or tamales. *Chichas*, although widespread, are made from diverse ingredients, including most fruits, pumpkins, nampi, pejibaye or pejivalle palm (*Guilielma utilis Oerst*), guanabana (*Annonna sp.*), and manioc or maize. These resources may have been grown by feast organizers for *chichadas* which in historic times are documented as serving as both religious gatherings and mechanisms for organizing group labor (Coe 1962; Healy 1974: 435-436; Stone 1962:69). The organization of feasts and the sponsorship roles associated with them, along with the introduction of maize agriculture, have routinely been used as an explanation for the rise of chiefdoms across the region (Hoopes 1996:40). The assumption that there is some causal relationship between the spread of maize agriculture and the development or even intensification of feasting throughout lower Central America, however, is increasingly unfounded, as discussed below (see also Hoopes 1996, below).

Period IV (1000 BC – AD 500) in lower Central America is marked by the rise of ranked societies from earlier widespread and sedentary but small agricultural communities and the following Period V (AD 500-1000) by increasing competition over resources as populations densities increase (Lange and Stone 1984: Figure 1.2; Willey 1984). Although the timing and nature of changes differs slightly across this broad region, it is not until Period VI (AD 1000-1530) that a shift occurs from power centered around shamanistic roles based in ceremony and ritual to those emphasizing political and economic control. The timing of this development seems to be in line with processes occurring northeastern Honduras, where evidence for centralized political and economic power is not apparent until the Cocal period (AD 1000-1500).

Much of the cultural history of lower Central America was predicated on the belief that the spread of maize agriculture was closely intertwined with the rise of social complexity (Sharer

1984; Sheets 1984). This expansionist chiefdom idea drew heavily on the ‘big men’ feasting concept (i.e., Clark and Blake 1994). We now know that this is wrong on numerous fronts, with ample evidence for early maize farming in Panama (Dickau et al. 2007) and a more nuanced understanding of the timing and nature of political and social development across the region.

The present study contributes to these advances and provides evidence for internal social, political, and ritual changes carried out by local agents prior to both the introduction of intensive maize agriculture and broader changes in social and political networks to the north and south. It also demonstrates internal change and differentiation in feasting form and motivation without any presence of aggrandizing individuals or redistribution of agricultural surpluses in feasts. In the present case study, ritual and ritual specialists overseeing large communal feasts aimed at social cohesion appear to have been more central forces than individualistic political or economic maneuvering in these changes (Spielmann 2002; Wells and Davis-Salazar 2007), as discussed below.

2.2.2.1 Coastal adaptations in Central America

As is the case at Selin Farm, much of the contrasting evidence necessary to overturn maize-centric (and consequently externally driven) views of social and cultural development in Central America has come from groups that exploited rich coastal ecosystems. In western Panama along the Gulf of Chiriqui, the traditional maize-to-hierarchy model was questioned by Hoopes (1996) based primarily on a lack of convincing evidence for early maize cultivation at archaeological sites, particularly those in southwestern Costa Rica where maize cultivation was said to have spread out into neighboring areas. He concludes that there is little support for intensive, widespread cultivation of maize as the single driving factor behind the expansion of

horticultural villages from southern Costa Rica into western Panama, despite previous assertions that this was a well-established pattern here and elsewhere in lower Central America (Hoopes 1996:39). Hoopes argues that we cannot generalize based on the absence of evidence for other subsistence economies, particularly when we hardly know what mixed economies looked like later in the development of settlements across this region.

Among groups of the Aguas Buenas tradition, Hoopes (1996) points to evidence of intensive, long-term exploitation of marine and mangrove resources, which may have been an alternative subsistence strategy among Greater Chiriqui populations in Costa Rica. At the site of Costa Purruja, for example, he notes multiple large shell midden deposits, some 4-5m thick and 12 m wide, with evidence for shellfish exploitation in association with the Aguas Buenas ceramic tradition. Considering the prevalence of coastal environments throughout much of the geographic area subsumed within lower Central America, coastal adaptations were likely relatively common in the past, as they are today. Additionally, shell midden deposits are exceptional sources of information on the prehistory of the region given the preservation of materials that often do not otherwise survive in the tropical lowland settings of Central America.

Despite the potential for addressing questions of social and political development in the region using data from rich shell midden deposits, there is, on the whole, unfortunately, a bias towards early, usually preceramic (i.e., Paleoindian or Archaic) period research in the study of coastal adaptations in Central America (see Stark and Voorhies 1978). This is compounded by an emphasis on Pacific coastal adaptations because of perceived connections of these settlements to the complex cultures of the highlands of Mesoamerica. The Atlantic coastal lowlands are often brushed over as being more closely related to the tropical forest adaptations of lowland South America (Willey 1984:343). Recent research on the Atlantic coast of Nicaragua is helping to fill

in some of these gaps (Clemente-Conte et al. 2008, 2009, 2012, 2013; Clemente Conte and Gassiot Ballbé 2003, 2004, 2015; Delsol et al. 2015; Gassiot Ballbé 2005; Gassiot Ballbé and Clemente-Conte 2015; Gassiot Ballbé and Palomar Puebla 2006; see also Gutiérrez Zugasti et al. 2015). These studies are adding to an extensive body of research on coastal and island adaptations from the wider Circum-Caribbean area (e.g., Reid 2018).

Advances in how shell midden sites are perceived and studied have contributed to a better understanding of lower Central American prehistory. Shell middens are defined as intentional anthropogenic accumulations of shell (Balbo et al. 2011: 147). Archaeologists have long been interested in these special deposits due to their exceptional preservation of material, particularly bone, but coastal adaptations in general have been overlooked as marginal to the study of prehistory (Alvarez et al. 2011:3; Balbo et al. 2011:148), particularly in areas where research has focused on the emergence of complex societies (i.e., Mesoamerica, although see work by Voorhies 1976, 1996, 2001 and also Blake et al. 1995; Clark 1994, and Kennett et al. 2008 for an example of how these deposits contribute to understanding environmental histories as well as cultural ones from this region). Understandings of shell midden deposition and use have benefitted from ethnographic accounts of formation processes (e.g., Sall 2013). In Brazil, shell middens or *sambaquis* have a long history of construction and use that stretches back to prehispanic times. In addition to serving as locations for refuse disposal, these and other middens around the world have been documented as having diverse uses, including raising house foundations above the periodic flooding of coastal areas, especially mangrove swamps, for burials and other rituals, and/or as production zones (Clemente-Conte et al. 2013; DeBlasis et al. 2007). My research both draws on and adds to the growing body of work on shell middens in the wider Circum-Caribbean area, where lower Central America has been underrepresented. It also

highlights the understudied nature of coastal adaptations in Mesoamerica, particularly during the Classic period (AD 200-950).

2.3 Understanding northeastern Honduras

Northeastern Honduras has been an especially difficult region to characterize in relation to surrounding regions, partly from the sporadic nature of ethnographic and archaeological research in the region, but also as a result of local inhabitants borrowing, emulating, rejecting, and adopting various traits from their northern and southern neighbors over a period of roughly two thousand years prior to European contact. As a result, the broadly defined local chronological periods for northeastern Honduras are distinct from Mesoamerican and lower Central American timelines (Figure 1-2), despite the fact that the region shares some patterns of development with either or both regions at any given time. The following sections first outline previous archaeological investigations in the region and then present a summary of the local culture history. This is followed by a discussion of the current interpretations of the prehispanic identities of northeastern Honduran groups. This serves to situate the current study relative to previous research in the region.

2.3.1 Archaeological investigations

Archaeological investigations of northeastern Honduras were limited throughout the 20th century, with sporadic expeditions beginning in the 1930s under the Smithsonian Institution (Spinden 1925; Strong 1935) the Heye Foundation, now the Museum of the American Indian (Mitchell-Hedges 1954), and the Middle American Research Institute (Stone 1939, 1940, 1941). These expeditions resulted in a large assortment of ceramic and other materials that remain in

collections in the United States. They represent a wealth of yet understudied or unstudied data from this region. Analyses of design elements in the ceramic materials at the Smithsonian Institution collection served as the basis for the chronology of the region (Epstein 1957) and were the central data set in the most holistic interpretation of political and social adaptations for this region to date, undertaken by Thomas W. Cuddy in *Political Identity and Archaeology in Northeast Honduras* (2007).

The first modern excavations in the northeast region were performed by Gordon Ekholm, A.V. Kidder, and Gustav Stromsvik in 1950 at the 80-acre site on Utila, part of the Bay Islands. The project, salvage archaeology by today's standards, spanned a total of three days but resulted in a large ceramic assemblage that allowed for the first chronological sequences for the region (Epstein 1957, 1959). A series of surveys in the 1970s and 1980s (Epstein 1975; Epstein and Veliz 1977; Goodwin et al. 1979; Hasemann 1975, 1977; Horton 1985; Veliz et al. 1977) recorded a large number of sites in the area; however, the majority of these data have yet to be fully organized, classified, or interpreted. A survey of the north coast near Trujillo was performed by Sharer and colleagues (2009) with the explicit goal of finding evidence of occupation earlier than the documented date of AD 300 but was unsuccessful.

Beyond test pits in conjunction with some of the early surveys, excavations in the past few decades were mainly limited to salvage projects undertaken by the Honduran Institute of Anthropology and History (IAAH; Cruz Castillo and Orellana 2000; Cruz Castillo and Rodriguez Mota 2007; Heredia 2002) and opportunistic investigations of limited duration by archaeologists working in other parts of Honduras (e.g., Begley 1999). One notable exception is the work by Paul F. Healy (1974, 1975, 1976, 1978a, 1978b, 1984a, 1984b) of Trent University who conducted a series of short field seasons in the mid-1970s with funding from the National

Geographic Society. His team excavated a series of sites from both the Selin and Cocal Periods in the area around Trujillo and the Guaimoreto Lagoon. Most significantly for the present study, Healy's work in this area at the site of Selin Farm framed current research questions by delineating the finer chronological periods of the Early Selin (AD 300-600), Basic Selin (AD 600-800), and Transitional Selin (AD 800-1000). He characterized these time periods by their association with distinguishable type-varieties (Healy 1993). Furthermore, his work resulted in the recovery of a diverse and extremely well-preserved faunal collection (see below, Table 3-1; Healy 1983).

2.3.2 Local culture history

Due to the lack of sustained research in the region, and especially given the difficulties of carrying out systematic surveys in tropical forests, it is difficult to talk about settlement patterns in the northeast region for much of its history. Preclassic sites are rare throughout the region, both along the coast and in the interior (Sharer et al. 2009). During the local Cuyamel Period (1000-300 BC), only two sites are known: the Talgua caves and the Cuyamel caves. The Cuyamel Caves (Healy 1974; HCN-14, 15, 16) are located within the east-west running range of mountains just south of Trujillo. Ceramics found on the surface within these caves are related to Preclassic forms and styles as far north and west as the Gulf Coast of Mexico, indicating some connection to Olmec traditions and placing the north coast within the traditionally defined border for Mesoamerica during this time period (Healy 1974, 1993). Fragmentary human remains suggest the caves may have been used as burial sites, again in line with Mesoamerican practices. Other cave ossuaries are known from the interior region, near present day Catacamas in Olancho in the Talgua Cave and others nearby (Beaudry-Corbett et al. 1997; Brady 1997; Brady et al.

2000). The Talgua Cave has evidence for use as early as the Early Preclassic and appears to have been used sporadically up until the Late Classic period with radiocarbon dates ranging from 1400 BC to AD 900. Generally, however, this practice is less common in Southeastern Mesoamerica after the Preclassic period (Brady et al. 2000:112), which supports the Preclassic dates from the Cuyamel Caves.

Following the Preclassic period, at around the time of the Period IVb-V transition in lower Central America, the Early Selin (AD 300-1000) period was marked by the first permanent settlements in the region and the development of a regionally shared material culture. Ceramics of the Early Selin period feature raised-band appliques and animal motifs, with the most common form being shallow tripod bowls that feature hollow, tubular supports. Cuddy (2007:50-55) has suggested that there is a lack of continuity between the Cuyamel and Early Selin ceramics, indicating a break in cultural traditions and a lack of *in situ* development. Cuddy does, however, acknowledge that our sample from both periods is still too small to make any definitive statements about cultural continuity, particularly over such a long period of time. Based on my research, it should also be noted that the Cuyamel Cave material represents an entirely distinct context (cave ossuary) from the apparent midden contexts that are currently represented by the Early Selin assemblage from Selin Farm.

Early Selin period (AD 300-600) sites of the coastal region include Chiapas Farm in the Aguan Valley (Strong 1933), 80 Acre Village on the island of Utila (Epstein 1957), and Selin Farm, La Francia, and 19.5 Kilometer near the Guaimoreto Lagoon and Trujillo (Healy 1975). While population growth over time accounts for some of the discrepancy in the number of early and later sites, it should be noted that Early Selin ceramics are most easily distinguished from later ceramics by the use of paint, which is easily eroded when exposed. Also, the Aguan River

and other large and small rivers along the coastal plain regularly flood and meander across the valley. Early Selin sites appear to have been located without regard for these concerns (Cuddy 2007:52). At least one large site – Chiapas Farm – was found under roughly six feet of alluvial deposits (Strong 1933). Attempts to locate early sites in the region have been unsuccessful in the past (see Sharer et al. 2009), likely due to a combination of these and modern issues of palm oil farming and related limited access to lands owned by these large corporations.

Based on what little is known, it seems the largest sites and the densest populations were located in the coastal regions, although there are some large sites in the Olancho area – namely Altas de Subirana in the Culmi Valley (Begley 1999) and the Jamasquire Cave near Catacamas (Stone 1941; see also Beaudry-Corbett et al. 1997). Villages of this period are diverse, but generally do not exhibit site planning and are made up of circular mounds. Ceramics of the Early Selin period are usually well-made, with considerable local variation across sites (see Appendix A). Modeled animal motifs are common, as are raised band appliques. The manatee motif is first seen during this time. Painted pottery is mostly monochrome, but paint is common, with even utilitarian pottery often painted along the rim (i.e., Chapagua Red Rimmed Type, Healy 1993: 200). Early Selin pottery is known mostly from excavation at Selin Farm, where radiocarbon dating by Healy (1978a) previously provided the only absolute dates for the period. Dos Quebradas and Chichicaste, two sites in the Olancho area, serve as the type sites for the most prominent types of early painted pottery (Beaudry-Corbett et al. 1997; Winemiller and Ochoa-Winemiller 2009).

During the Basic Selin period (AD 600-800), settlement became more widespread and ceramic styles became increasingly similar across the region. San Marcos style pottery, typified by examples from the San Marcos site in central Olancho in the interior region, is dominant

during this time. It shows close ties with other bichrome and polychrome types throughout central (e.g., Sulaco from El Cajon, Hirth et al. 1993) and northwestern (e.g., Bold Geometric/Santa Rita from the Ulua and Yojoa region, Strong 1938) Honduras. This site, and the pottery style associated with its rise as a major center in the region, mark the increased integration of the northeast as a cultural area and the associated homogenization of its material culture (Cuddy and Beaudry-Corbett 2001). The most common form of the San Marcos Polychrome type is a large jar, which is similar to the Sulaco Polychrome jars from central Honduras (Hirth et al. 1989; Joyce 1993, 2018). Regional variations are apparent, as the assemblage from the type site demonstrates a fine past ceramic with a dark gray core and no inclusions (Cuddy 2007:63-64) while other examples share similar styles and forms but with differing paste (Epstein 1957; Healy 1978a). Exclusive of the San Marcos Polychrome type and local varieties, incising and appliques are the most common decorations and animal motifs, particularly the manatee, continue to be common in the iconography.

Sites dating to the Transitional Selin period (AD 800-1000) are rare. Patterns in the interior suggest that settlement shifted from being nucleated to widely dispersed at this time. A shift in the material culture towards an emphasis on lower Central American connections became marked. Pottery is generally described as thicker and larger than preceding wares, although many of the same stylistic types continue. Large, cylindrical vases (i.e., San Antonio Carved, Healy 1993) are present, often with ring stand bases and lug handles with modeled animal motifs. These share certain characteristics with the politically significant Ulua Marble vases in northwestern Honduras (see Cuddy 2007:68). Along the northern coast, Selin Farm, Chiapas Farm (Strong 1933) and Peroles Calientes along the Black River (Epstein 1957:164-165) have evidence of Transitional period ceramics. Of these, only Selin Farm has been systematically

excavated (Healy 1978b), the others were assessed based on under- or unprovenienced museum collections.

By the time of European contact, the northeast region, both coastal and interior, is believed to have been unified into a single paramount chiefdom called Taguzgalpa. This polity is marked by a cultural zone that shared a set of stylistic iconographies (Cuddy 2007). Site planning is apparent as early as AD 1000 at the Rio Claro site in the Aguan Valley, not far from Selin Farm (Healy 1978b). Elite burials and caches are present throughout the Bay Islands, suggesting elaboration of both political and ritual spheres (Strong 1935). Spatial and temporal variation in the 1200 years of occupation leading up to this point, however, is not well understood. A three-tiered settlement hierarchy is apparent for much of the Cocal Period (AD 1000-1500) and at least a two-tiered hierarchy seems likely for much of the region throughout most of the Selin Period (AD 300-1000).

2.3.3 Local identities

Previous frameworks for understanding past social identity and affiliation in the northeast followed similar trajectories as those in southeastern Mesoamerica. External stimuli were sought and privileged for explaining local change (Strong 1935; Stone 1941). Much of this research relied heavily on evidence of cultural traits and trade goods from Mesoamerica or lower Central America. This created a reinforcing cycle of problematic understandings of local trajectories. In addition to being difficult to interpret in terms of local structures and meanings, exotic goods are also easily identifiable and may lead to an overrepresentation of, or emphasis on, external influences (e.g., Helms 1979, 1988, 1998).

More recently, *in situ* political and social developments have been examined and characterized independently (Begley 1999; Cuddy 2007). An extensive stylistic analysis of existing ceramic collections revealed that local symbols, based on the ecologically important species of manatee and tapir, were developed into widespread emblematic motifs that persisted for over 1,200 years. This longevity suggests that local leaders employed a corporate political strategy aimed at promoting group cohesion through inclusive expressions of identity (Beaudry-Corbett and Cuddy 2001; Cuddy 2007; Wiessner 1989). The use of a corporate strategy to promote group identity formation and maintenance is likely to produce a number of corresponding characteristics (Blanton et al. 1996). The proliferation of emblematic symbols of group identity by the Early Selin period is the most prominent indicator of the primacy of this strategy in the region (Beaudry and Cuddy 2001; Cuddy 2007; DeMarrais et al. 1996; Wiessner 1989). In conjunction, the limited identification of imported resources fits the expectations of the model, although current evidence is based on qualitative assessments of style and local manufacture technology has not been examined (Healy 1984b, 1992; Joyce 1993; but see Aguilera 2019.; Dennett 2007). Other evidence supporting this strategy across the region includes limited site planning and settlement hierarchies until the Cocal Period (Begley 1999; Healy 1978b). Finally, a low level of social inequality is expected, but has not been assessed in the study area given the lack of inquiry into intrasite differences, due at least in part to the difficulty of locating discrete households at many of the sites in the region, given the lack of stone architecture (Healy 1984b). Data from the limited number of burials recovered from the area also support very little social differentiation (Cuddy 2007).

Within the symbolic repertoire of the northeast, the manatee and tapir motifs in particular were developed in the Early Selin (AD 300-600) and persist in increasingly stylized forms

through European contact (Cuddy 2007). While these are not the only animal images present on ceramics, they are widespread across the region and are believed to have played a role as emblematic symbols of group identity. Drawing from the seminal works of Wiessner (1983) and Wobst (1977), Beaudry-Corbett and Cuddy (2001) examine the use of these motifs and their evolution as indicators of major social change within the region. The prevalence of manatee and tapir motifs is not surprising, as they are the largest mammals found in their respective habitats (coastal and inland). Still, the authors suggest that, “it is possible that their co-occurrence on ceramics relates to shared cosmology or religious beliefs as well as a shared habitat” (Beaudry-Corbett and Cuddy 2001:4). Accordingly, they find that tapir motifs developed first inland, while the manatee was first a coastal phenomenon, but by the Basic Selin Period (AD 600-800) these pieces were more widely traded and represented an increased cohesion among these groups. This work suggests that these symbols became emblematic of a larger group over a larger area that reflects growing political organization in the region (Beaudry-Corbett and Cuddy 2001).

2.4 Summary

The recent shift to locally-driven interpretations of autochthonous developments in the northeast (i.e., Begley 1999; Cuddy 2007), with actors employing foreign elements to strategic ends, is representative of larger shifts in the understanding of cultural frontier zones throughout Central America and beyond. Increased research in areas previously considered peripheral to the state-level societies of Mesoamerica demonstrates significant variation in the ways in which local populations incorporated and adapted a range of Mesoamerican traits, blending them with local traditions. These new models share an emphasis on the dynamic, fluid nature of boundaries and move away from understanding culture contact as a unidirectional flow of ideas and goods

(Schortman and Urban 1986, 1994). At the same time, research in lower Central America is increasing and revealing a wider range of adaptations than were previously believed to exist in the region. These studies further support the pattern of local reappropriation of foreign traits within local, deeply rooted traditions (Baudez 1970; Graham 1993; Lange 1984, 1992; Lange and Stone 1984).

These approaches are complemented by the use of a communities of practice framework (Lave and Wenger 1991; Wenger 1998), which assumes fluid boundaries while also attempting to identify specific agents and objects (i.e., brokers and boundary objects) that represent or symbolize external affiliations and connect these to particular networks of social exchange, rather than general directional influences, as I discuss in further detail in the following chapters. My research at Selin Farm brings practice to the forefront by examining the context of use of both exotic pottery styles and pottery that exhibits the locally important manatee symbol. By identifying who came together to use the pottery that featured these symbols, and where and how they used them and combined them with styles of food preparation and consumption (i.e., their community of consumption), we can gain a more holistic understanding of how local actors balanced the goals of social cohesion with innovation and adoption of broader styles and trends from the north and the south.

CHAPTER 3 :

CENTRAL AMERICAN FOODWAYS AT THE BORDER

This study shifts the focus our understandings of identity negotiation by treating ceramics not only as a medium for style but as part of a foodways system (Figure 3-1). Foodways encompass the food-related choices about resources, technologies, and practices specific to a group (Delwin 1999; Goody 1982). This view includes the recognition that other parts of this system – the foods chosen to be processed or cooked in ceramics, the particular methods of preparation or serving – can also have their own form of style that has the potential to be as important in materializing identities as the designs on ceramic vessels. Foodways are an extraordinary lens for examining the articulation of material culture with practice as they require near constant culturally imbued action to transform raw foods into edible goods and these repeated activities leave socially meaningful traces that are visible in the archaeological record (see Twiss 2012). The biological need for food and the ability to literally incorporate food as “embodied material culture” lend weight to its prominent presence and potency as a material symbol across various settings (Dietler 2001: 72; Hastorf and Weismantel 2007).

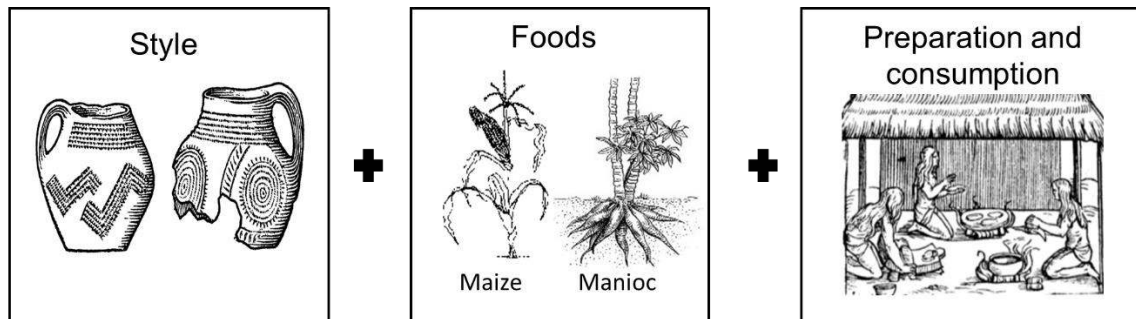


Figure 3-1 Aspects of local foodways considered in this study.

Vessels on which style is displayed were used as part of a technological and social system that included both their function in the most basic sense – their use as vessels in practices related to food –and their more abstract function as a symbol imbued with meaning dependent not only on style but also on their contexts and associations. Foodways alone may also reveal much about identity at various levels (Twiss 2007), but the combination of the potent but fleeting symbol of food and food related practice with more enduring ceramic forms and designs incorporating local and nonlocal styles would have created a powerful arena for the negotiation of identity.

3.1 Foodscapes

Northeastern Honduras is ideal for considering foodways as an expression of identity given that it sits at the border of two very different ‘foodscapes’ or regions with different traditions of foodways both in terms of resources exploited and how they were used (e.g., differential emphasis on and preparation of maize and manioc, see below). The investigation of foodways as an avenue for the study of identity negotiation among border groups is productive for several reasons. Rather than rely on resource use alone, this view includes the importance of technology as a central part of the system. This is especially important for the archaeological

examination of foodways given that resources are not often preserved in the archaeological record. Most significantly, this definition highlights the importance of understanding the entirety of the system, including the uses of technology and resources at different stages that combine in novel ways to create traditions that are unique to certain cultural groups. These elements are then manipulated by social actors through practice as acts of identity negotiation that may serve to create, maintain, or transform traditionally defined foodways (Atalay and Hastorf 2006; Bray 2003; Brumfiel 1991; Twiss 2007; Welch and Scarry 1995;).

Food resources likely played a central role in the corporate political strategy of the northeast Honduran region (see Chapter 2). Corporate strategies rely on the production of goods, rather than exchange, to produce a surplus (Blanton et al. 1996:6; D'Altroy and Earle 1985). Politics and foodways come together in feasts, an activity defined broadly by the communal consumption of food at a scale beyond the household (Brumfiel 2004; Dietler and Hayden 2001; Mills 2002; Smith et al. 2003). The act of feasting does not necessarily imply the use of a specific resource or set of resources but may actually be defined by the particular practices involved in the procurement, preparation, and consumption of food. For this reason, feasts are identified archaeologically based on a number of indicators that may include style and assemblage composition (Hendon 2003; Smith et al. 2003), considerations of constructed space (Mills 2007), and the use of particular resources (LeCount 2001; White 1999; Wing 1981), as detailed in the following chapter.

For the present study, foodways are used to understand how groups in northeast Honduras shared common resources, technologies, and practices that united them, specifically in the setting of communal eating events or feasts. Food traditions in groups to the north and south are used to help understand northeastern Honduran foodways in their broader cultural context

and to help identify sources of interaction and affiliation over time in foodways. Central American foodways have been approached from a number of perspectives and employed towards a number of goals, including investigations of both subsistence patterns and the ritual role of foods (see Staller and Carrasco 2010). These two subjects also represent the two major fields of foodways research in Central America, with one focused primarily on the origins and spread of agriculture (i.e., Piperno 2009) and the other with the importance of ideologically significant resources (i.e., maize and cacao), with an explicit understanding that the two are fundamentally linked.

Central to the present study are differences in the emphasis given to maize and manioc as staple crops in Mesoamerica and lower Central America. The widespread Mesoamerican reliance on maize crops and the essential triad of maize, beans, and squash, has been supported empirically from diverse contexts at numerous sites (Lentz 1999). Particularly relevant for this study is the introduction of the nixtamalization process in this region (see below, Cheetham 2010), which allowed for the elaboration of maize into *masa* and subsequently into tortilla form, a transformation in Mesoamerican foodways that took place by the end of the Classic period. This is contrasted with a reliance on manioc, a root crop, among groups of lower Central America and northern South America (Hoopes and Fonseca 2003).

This distinction, however, does not imply that both staples were not consumed by groups throughout Central America. There is a growing recognition among archaeologists working in Mesoamerica that manioc may have been a more significant resource than previously believed. Part of this increase in attention is due to advances in techniques for recovering and identifying starch grains in the archaeological record (e.g., Piperno 2006, 2015). Additionally, extraordinary preservation at the site of Ceren in El Salvador demonstrates that manioc may have been grown

as a staple crop (i.e., regularly producing a high proportion of food for local households), although no associated tools for processing were recovered (Sheets et al. 2011:8). The authors argue, however, that maize was still the preferred or prestige crop, while manioc might have been a more reliable crop – producing greater calories per unit area than maize – that was especially important in times of environmental (or, I would add, social) stress. The interpretation of manioc as a famine food, however, cannot likely be generalized to the entire Maya region. Recovery of evidence for manioc consumption in Classic and Terminal Classic ritual and domestic contexts at the site of La Corona in the northwestern Peten challenges these assumptions (Cagnato and Ponce 2017).

Studies of cacao have been prominent both in examining its importance mostly within Mesoamerica (i.e., Hurst 2006; Joyce and Henderson 2010; McNeil 2006) but also the significance of its presence for trade and exchange in areas outside the region (Crown and Hurst 2009). The identification of the presence of cacao in ceramic vessels now commonly employs residue analysis (Hurst 2006; Joyce and Henderson 2010). This is especially important given the low recovery rates of cacao macrobotanical remains in archaeological contexts, likely due to a combination of poor preservation and the high value placed on this plant in the past and resulting low rates of disposal (McNeil 2006). While there are differences in the preparation and serving styles of cacao from the north to the south, the consumption of this resource as part of a ceremonial beverage is actually a Central American tradition and serves to differentiate groups at the southern border of lower Central America from the Chibchan groups of Colombia that in contrast use coca (Hoopes and Fonseca 2003:78). For this study, it is assumed that cacao would have been used by local groups, but that evidence for its combination with other ingredients

(namely maize) and its presentation in cylindrical vessels would help identify traditional Mesoamerican consumption practices (see McNeil 2006).

On the southeastern Mesoamerican frontier, foodways have been employed to detect differences in access to food resources as a proxy for social inequality (Lentz 1991). In lower Central America, where differences in social inequality are not as stark, stable isotope research has been used most often to look at differences between coastal and inland dietary patterns (e.g., Norr 1996). The use of particular food resources was also identified as a possible indicator of migration (Lentz 1991), affiliation (Lentz et al. 1997), and exchange (Joyce and Henderson 2010). Studies of eating and feasting that seek to compare intra-community differentiation are often limited by preservation issues, but new methodologies in soil analysis combined with traditional assemblage composition studies are proving productive in locating and comparing spatially distinct indicators of feasting or food-activity related areas in plazas (Fulton 2015; Rothenberg 2014; Wells 2004).

At the same time, animal use was previously relegated to only examining internal societal differences (because of the difficulty in tracing culturally significant patterns across heterogenous environments, see Emery 2010; Reitz and Wing 1999), mostly through the distribution of elements and processing techniques. However, zooarchaeological insights are now being used to study exchange at a regional scale with the use of stable isotope analysis on domesticated species (e.g., Sharpe et al. 2018). Initial results of ongoing analysis from Selin Farm suggest these techniques might be productively applied here in the future, as Mesoamerican domesticates (e.g., turkey, *Meleagris gallopavo*) were identified in the assemblage from our excavations. A traditional analysis of element processing and distribution

will also lend complementary data sets to examine internal differentiation (see Elvir 2019; Elvir et al. 2018; Reeder-Myers et al. 2019).

In addition to the more direct indicators of diet discussed above, the examination of technology, beyond its design or origin, provides a productive avenue for research concerning identity expression through practice. The majority of technologies in ancient societies were tools first, most often related to food production, and served as mediums of design only secondarily. As archaeologists we tend to view these items as markers of chronologies and connections and we often overlook the practical or functional implications of form. This problem stems from the fragmentary nature of the archaeological record and the difficulty of inferring behavior or function from the measurements most often collected (Braun 1983). While shape is not equivalent to use, and the connections between form and function are sometimes tenuous in archaeological settings (Shepard 1985), ethnographic analogy has provided a number of advances in linking behavior to form, both generally (Longacre and Skibo 1994; Morris 1990; Stark and Skibo 2007) and within the Maya region specifically (Deal 1998; Searcy 2011). For the present study, known connections between Mesoamerican technologies related to specific food practices are essential for examining the present research questions (Long-Solis and Vargas 2005; Staller and Carrasco 2010; White 1999). Especially significant are forms known to relate to maize processing (Cheetham 2010; Staller 2010) and cacao serving (Joyce and Henderson 2010; McNeil 2006), as well as more general functional categories related to the different steps of food preparation and serving (Hendon 2003: Figure 8.6a, b).

Given the connection between form and function, formal or morphological (shape and size) analyses can inform on a wide range of foodways related practices, including the changing social relations of food provisioning (i.e., Brumfiel 1991; 2004) and status related differences in

processing and consumption (i.e., Welch and Scarry 1995). Ceramic vessels are involved in nearly every stage of food production and are an exceptional source of information about past food related activities (Delwin 1999; Goody 1982; Rice 1987: Chapter 9). In Mesoamerica, the comparison of ratios of cooking or preparation vessels to ritual or food serving vessels is often used to identify specific contexts and to infer differences in involvement with particular food related activities both within and among sites (e.g., Hendon 2003; Smith et al. 2003). The distribution of sizes within a particular form of serving vessels has also been used to identify feasting activities (e.g., Wells 2007). In addition to ceramic forms, the abundance and location of groundstone has also served as an important line of evidence for inferring food practices, especially the preparation of maize (Turkon 2007), whereas microlithic grater chips are often associated with manioc use throughout Central and South America (although see below, Ciafalo et al. 2018). Recently, analyses of changes in the formal properties of grinding tools have been used to hypothesize shifting subsistence practices (Biskowski and Watson 2013), adding another route for understanding ancient diet through the examination of multiple characteristics of durable mediums, and one that should be considered in the future when such trends can be distinguished with larger samples of groundstone technology from the northeast Honduran region.

3.2 Local foodways

In northeastern Honduras, studies of ceramic and groundstone technology have focused primarily on external referents and locally important symbols to infer social affiliation and political strategy (Cuddy 2007; Epstein 1957; Strong 1935;). Epstein (1957) presented the first regional chronology for northeast Honduras, which was later expanded upon by Healy (1993).

Both presented type-variety analyses, including common forms in their descriptions. These descriptions were derived from a sample of fragmented ceramics from a small number of test pits on a few sites in northeastern Honduras and the Bay Islands or, conversely, are based on complete vessels from existing collections with little provenience information (Strong 1935). These ceramics were largely categorized on differences in surface treatment, with emphasis on stratigraphic relationships but little attention to context, association, or form to infer function. Cocal Period ceramics have been more closely investigated through modal analyses (Dennett 2007, 2008) but the ceramics of the Selin period are less well-known.

Excavations at the type-site for the Selin period revealed distinct traditions across the Early Selin (AD 300-600), Basic Selin (AD 600-800), and Transitional Selin (AD 800-1000). The Transitional Selin is especially interesting, given that others have noted a shift to much thicker and larger, “oversized” pottery (Cuddy 2007:67). In contrast, the Cocal period, which immediately follows the Transitional Selin, is characterized by the widespread use of miniature vessels attributed to ritual activities (Moreno-Cortes and Wells 2006). The importance of varied forms, however, has not been explored in terms of possible behavioral implications.

Groundstone is found in abundance throughout the region in all periods of occupation. Manos appear to be related to traditional forms in Mesoamerica, ranging in cross-sectional shape from round to square. At least two distinct types of metates have been identified, a “standard metate” type, related to common types used for maize grinding in Mesoamerica, and a “turtleback” type, described as basin-like (Healy 1978b:63). Neither were found within Selin Farm excavations, likely due to the limited sample size and the difficulty in distinguishing form from fragmented remains, but also the curation of groundstone tools by local populations (see below, Conzemius 1927). In the Cocal period, groundstone artifacts increased in quantity across

the region and were elaborated into detailed carvings and produced in both miniature and oversized forms, with clear ties to lower Central American carved groundstone traditions (Jones 1992; Willey 1984).

Botanical remains have been recovered and analyzed from several archaeological sites in southeastern Mesoamerica. Lentz (1991) focused on the macroremains of both early, non-Maya populations and later Maya groups at the site of Copan, in northwestern Honduras. In addition to the common triad of maize, beans, and squash, a number of economic tree species were recovered, suggesting an arboricultural strategy. Diversity calculations across different contexts also indicated a difference in access to food resources across households of different socioeconomic status. During the Late Classic Period, a time of demographic stress, Lentz noted an increase in the exploitation of coyol palm (*Acrocomia aculeata*), likely as a source of oil. This is significant given the absence of this species in strata dating to before the Classic period, when other signs of Maya influence first become apparent in the valley. Lentz (1991, 1999) concluded that the Maya either introduced the practice of processing coyol for consumption or possibly even introduced the plant itself. Several specimens of burnt palm nut were recorded during our excavations at Selin Farm and the practice of palm processing for oil continues today in the region. Combined with an abundance of axe forms appropriate for clearing, this evidence suggests tree crops might have been an important dietary staple at Selin Farm. Ongoing identification of charcoal specimens should help address the question of tree crop use at the site (Reeder-Myers and Goodwin 2019).

In central Honduras, Lentz and colleagues (1997) examined botanical remains from the site of Yarumela, occupied contemporaneously to Copan. Their findings differed from the patterns observed at Copan, especially in the low ubiquity of maize and squash and the absence

of beans. Evidence of cashew wood in Preclassic settings was significant, given that its domestication occurred in South America, and suggested lower Central American ties existed at the site. Furthermore, indirect evidence for manioc processing was evident in the form grinding stones, “too rough on the surface for grinding corn”, thin stone “griddles”, and the remains of a possible grater represented by a cluster of obsidian chips (Lentz et al. 1997:70). These findings mirror some of the evidence for food processing found at Selin Farm, despite a significant difference in the timing of the occupation of these sites. Materials also differ, with no evidence for stone griddles or obsidian microlithic chips at Selin Farm.

Although studies of prehispanic plant use are lacking in northeastern Honduras, David Lentz (1986, 1993) has worked with modern Pech and neighboring Jicaque indigenous groups of the region. This important research documented the names, ecological settings, and uses for over 200 plants, distinguishing among those used for food, medicine, beverage, sources of wood or fuel, artifact manufacture and those for which names exist in indigenous languages but have no known modern use. Additionally, ethnohistoric accounts of an encounter between Columbus’s crew and an indigenous trading canoe off the shores of the Bay Islands recorded the presence of nonlocal materials, including cacao beans (Columbus 1959). Although unconfirmed by archaeological evidence, the Aguan Valley is also believed to have been the only other site of cacao production in Honduras in prehispanic times, along with populations of the Ulua Valley, providing one possible motivation for the apparent cultural affiliation or sustained interaction of these two areas (Begley 1999; Lara Pinto 1991; McNeil 2006).

In the interior of northeast Honduras, within the Department of Olancho, several cave ossuaries have been investigated and provide some relevant data on prehispanic diet and resource use (Brady 1997; Brady et al. 1995a, 1995b, 2000). Stable isotope analysis was performed on

two individuals deposited in an ossuary at the Talgua Caves site. Both were directly dated, one to approximately 1400 BC (3110 BP +/- 85, within the Early Formative Period) and the other to around AD 650 (1385 BP +/- 75, Classic Period). Results of isotopic analyses on the two teeth suggest that neither individual consumed significant quantities of maize (Brady et al. 2000: 112). In this same area, Late Classic burials within the Arañas Cave ossuary demonstrated the use of riverine snails (*Pachychilus sp.*). A similar practice is common in the Maya area during ritual meals performed in caves (Brady et al. 2000: 111).

The only existing archaeological dataset on prehispanic diet in coastal northeast Honduras comes from Healy's (1978a) excavations at the site of Selin Farm. Excavations at this site resulted in the recovery of a diverse and extremely well-preserved faunal collection, currently housed at the University of Florida. Because of the exceptional preservation provided by the shell composition of several of the mounds at the site, this collection provides one of the most complete representations of animal use history for any area of Central America (Table 4-1; Healy 1983). This collection, with over 3,500 bone specimens and dozens of shellfish remains catalogued and identified to the species level, provided a baseline for understanding diet from the perspective of animal resource use at the site. My research fills gaps in our knowledge about prehispanic foodways in this area by focusing on residue analysis of botanical remains representative of major agricultural staples – maize and manioc – as well as the technologies and contexts involved in foodways systems.

In order to bridge the gap between the broad regional variations and local trends outlined above and the hypotheses and data requirements presented below, the following section provides detailed behavioral chains for dishes and meals that may have been consumed in prehispanic northeastern Honduras. Maize and manioc as staple foods are considered in detail from

harvesting to preparation to consumption. Meat and seafood are also considered given that there is considerable evidence for their consumption in feasting contexts at Selin Farm. In both sections, dishes common to descendant Pech populations are used as a model for likely combinations of ingredients, preparation methods, and consumption practices of the past. The use of specific technologies, where they would have been required, are noted in these processes. Finally, the role of foods in Pech ceremony and drink are also considered as these historic and ethnographic accounts of food-related traditions are useful in understanding how, where, and by whom the materials that we see in Selin Farm deposits were used in practice (i.e., their systemic context) by active agents in the past.

Table 3-1 List of fauna from Selin Farm identified by Healy 1983 (after Dennett 2007).

<ul style="list-style-type: none"> • Amphibia 	<ul style="list-style-type: none"> • Shellfish
<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Frogs and Toads (<i>Anura</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Bivalves
<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Tree frog (<i>Hylidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Arks (<i>Anadara</i> sp.)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Narrow-mouth frog (<i>Microhylidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Buttercup lucina (<i>Anodontia alba</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Marine toad (<i>Bufo Marinus</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Calico scallop (<i>Argopecten gibbus</i>)
<ul style="list-style-type: none"> • Aves 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Mangrove oyster (<i>Crassostrea rhizophorae</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Tinamous (<i>Tinamidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Cockles (<i>Trachycardium</i> sp.)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Curassows and Chachalacas (<i>Cracidae</i>) 	<ul style="list-style-type: none"> • Gastropods
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Jacana (<i>Jacanidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Striate bubble (<i>Bulla striata</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Hummingbirds (<i>Trochilidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Queen helmet shell (<i>Cassia madagascariensis</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Tyrant flycatchers (<i>Tyrannidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Measled cowrie (<i>Cypraea zebra</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Wood warblers (<i>Parulidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ True tulip shell (<i>Fasciolaria tulipa</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Tanagers (<i>Thraupidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Angulate periwinkle (<i>Littorina angulifera</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Finches and Sparrows (<i>Fringilidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ W.I. crown conch (<i>Melongena melongena</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Herons (<i>Ardeidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Colorful moon snail (<i>Natica canrena</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Ducklike birds (duck, goose, swan) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Caribbean olive (<i>Oliva scripta</i>)
<ul style="list-style-type: none"> • Osteichthyes 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Scotch bonnet (<i>Phalium granulatum</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Carp and Minnow (<i>Cyprinidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Pyramid shell (<i>Pyramidella dolobrata</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Characids (<i>Characidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Queen conch (<i>Strombus gigas</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Catfish (<i>Ariidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Caribbean vase shell (<i>Vasum muricatum</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Cichlids – tropical (<i>Cichlidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ River snail (<i>jute</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Sea Bass/Grouper (<i>Serranidae</i>) 	<ul style="list-style-type: none"> • Mammalia
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Puffer (<i>Spheroides</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Bats (<i>Chiroptera</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Snapper (<i>Lutjanus</i> sp.) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Leaf-nosed (<i>Phyllostomidae</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Barracuda (<i>Sphyraena</i> sp.) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Funnel-eared (<i>Natalidae</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Jack (<i>Caranx hippos</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Carnivores (<i>Carnivora</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Snook (<i>Centropomus</i> sp.) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Gray fox (<i>Urocyon</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Tarpon (<i>Megalops atlanticus</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Coyote (<i>Canis</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Shark (<i>Carcharhinidae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Raccoon (<i>Procyon</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Houndfish (<i>Tylosaurus</i> sp.) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Kinkajou (<i>Potos</i>)
<ul style="list-style-type: none"> • Reptilia 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Coati (<i>Nasua</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Turtles 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Skunk (<i>Mephitis and Spilogale</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Snapping (<i>Chelydridae</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Cats (<i>Felidae</i>)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Mud (<i>Kinosternon</i>) 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Ocelot
<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Green (<i>Chelonia mydas</i>) 	
<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Lizards (<i>Lacertilia</i>) 	
<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Snakes (<i>Ophidia</i>) 	
<ul style="list-style-type: none"> <ul style="list-style-type: none"> • Crocodilians (<i>Crocodylia</i>) 	

○ Jaguar (<i>Felis onca</i>)
○ Jaguarundi
○ Margay
○ Tapir (<i>Tapirus</i>)
○ Collared peccary (<i>Tayassu tajacu</i>)
○ White-lipped peccary (<i>Tayassu pecari</i>)
○ White-tailed deer (<i>Odocoileus virginianus</i>)
○ Brocket deer (<i>Mazama americana</i>)
● Edentates (<i>Edentata</i>)
○ Armadillo (<i>Dasypodidae</i>)
○ Common (<i>Dasybus</i>)
○ Anteater (<i>Myrmecophagidae</i>)
○ Sloth (<i>Bradypodidae</i>)
● Insectivores (<i>Insectivora</i>)
○ Small-eared shrew (<i>Cryptotis</i>)
● Lagomorphs (<i>Lagomorpha</i>)
○ Cottontail rabbit (<i>Sylvilagus</i>)
● Opossums (<i>Marsupialia</i>)
○ Mouse (<i>Marmosa</i>)
○ Philander (<i>Philander</i>)
○ Woolly (<i>Caluromys</i>)
○ Water (<i>Metachirus</i>)
● Pelagic mammals
○ West Indian seal (<i>Monachus</i>)
○ Fin-backed whale (<i>Balaenopteridae</i>)
○ Porpoises and Dolphins (<i>Delphinidae</i>)

● Primates (<i>Primates</i>)
○ Monkeys (<i>Cebidae</i>)
○ Howler (<i>Alouatta</i>)
○ Spider (<i>Ateles</i>)
○ Capuchin (<i>Cebus</i>)
● Rodents (<i>Rodentia</i>)
○ Sciuromorpha
- Tree squirrel (<i>Sciurus</i>)
- Flying squirrel (<i>Glaucomys volans</i>)
- Pocket gopher (<i>Macrogeomys</i>)
○ Myomorpha
- Spiny pocket mouse (<i>Heteromys</i>)
- Brown mouse (<i>Scotinomys</i>)
- Water mouse (<i>Rheomys</i>)
- Cotton rat (<i>Sigmodon</i>)
- Rice rat (<i>Oryzomys</i>)
- Wood rat (<i>Neotoma</i>)
- Vesper rat (<i>Nyctomys</i>)
- Climbing rat (<i>Tylomys</i>)
● Hystricomorpha
○ Porcupines (<i>Erethizontidae</i>)
○ Agouti (<i>Dasyproctidae punctata</i>)
○ Paca (<i>Agouti paca</i>)
● Siren (<i>Sirenia</i>)
○ Manatee (<i>Trichechus</i>)

3.3 Behavioral chains of dishes and meals

Understanding foodways requires contextual information on how resources and technologies are brought together in practice – including how resources are gathered, how they are prepared, and how they are served and disposed of, as well as where and when these

activities take place and who is involved in each step. The first step in a contextual analysis of foodways is understanding the chain of behavior (see Schiffer 2016) that produces a specific dish or meal. In archaeological studies, we tend to focus on food preparation techniques that leave considerable material remains like cooking and grinding. A holistic study, however, should also consider how plants and animals are harvested, collected, or hunted, the implements or technologies involved in all stages of production and consumption, discard practices, and where, when, how, and by whom these steps are undertaken. This often involves considerable ethnoarchaeological or experimental research but can also rely heavily on existing ethnographies and historic sources. The present study draws on all of these types of sources of information.

The histories and uses of maize, from harvesting and preparation to consumption, have received a considerable amount study in the New World (e.g., Staller et al. 2016). Manioc is only recently gaining systematic study in archaeology, due mainly to advances in recovery techniques (see Pearsall 2015). While there are endless combinations of resources, technologies, and practices that might be considered, this overview will start with traditional practices among the current and ethnohistoric Pech that feature these staples. It will also consider other major dishes from northern and southern areas of Central America that may have been a part of the local repertoire of meals in prehispanic times. Use of staple crop resources is the primary concern for this study, but additional information on other behavioral practices related to resources encountered and used in northeastern environments will also be addressed where they are appropriate for understanding our excavations (e.g., animal resources).

3.3.1 Manioc and maize

The primary staple crop of the Pech historically and today is manioc, *Manihot esculenta* Crantz known as “bitter manioc”, followed by maize (*Zea mays*) (Conzemius 1927:291; Flores Mejia and Griffin 1991:106; Griffin et al. 2009:43; Lentz 1993:361). These are planted together along with squash and beans in fields within about 3km of house compounds. Men are the primary cultivators, but women work the fields when they do not have other work. Women do all of the other food preparation tasks, from grinding to cooking, which take place in a kitchen structure removed from or adjacent to the main residential structure (Griffin et al. 2009:38).

In February, men clear the fields for corn planting using machetes, burning the resulting debris which adds nutrients and reduces competition with other plants. Women plant maize with a digging stick when the rainy season begins, usually in June. Squash is planted in between the rows of corn and provides ground cover that helps minimize the need for weeding. Corn is harvested in early October, followed by squash. Fields are then lightly cleared and replanted, and then harvested again in February. The second harvest, having grown in the dry season, is not as productive as the first. Corn is stored in the husk in raised platforms with thatch roofs which are located behind the house compounds. Fields are usually abandoned after the second harvest and left fallow for at least four years (Lentz 1993:61).

Manioc is planted vegetatively by stem or root cuttings, after burning or light clearing. It is also harvested twice a year, taking about six months to mature. The plant is pulled up, the mature portions are cut from the main stalk, and then the stalk is reinserted into the ground to develop new tubers. This process is repeated until the yields decline (Lentz 1993:363). Tubers can be stored in the ground until eaten, requiring no special processing for storage. Simple tools are used – mostly axes and machetes for clearing (Conzemius 1927:291). Axes are a common

tool, with every household in possession of one. Diverse forms are probably used for an array of tasks related to both agriculture and crafting, with *pipante* or canoe making also a common activity (Cozemius 1927:286). A distinctive T-shaped axe form is noted in archaeological contexts in the northeast, which is also found in lower Central America (Healy 1980:349). Begley (1999:160) suggests these might be hoe-like implements, which would indicate weeding activities, more likely tied to the planting of maize rather than root crops, but this association needs further investigation.

Household items related to food preparation and serving were detailed in an ethnohistoric study by Cozemius (1927). He noted that metates, for the grinding of manioc and maize, were present in every household (Cozemius 1927:286). Manioc and maize were likely the main resources processed on these implements, and their use would have increased as agriculture intensified, though these were probably multi-use tools where many other crops and wild plants were also ground. Cacao seeds are another common resource that are known to have been ground using manos and metates in the past and present (Lentz 1993: 368). Metates were commonly obtained from archaeological sites (*antiguales*) in the region (Cozemius 1927:286) and this practice still occurs today. Curation of these items in the prehispanic period seems likely as well, given their high cost and durability. Wooden mortars and pestles are sometimes used today for similar tasks (Lentz 1993). Graters, also composed of wood with microlithic flakes made from diverse parent materials embedded in the surface, are tools used for grating manioc (and other resources, see Berman and Pearsall 2008; DeBoer 1975; Kamienkowski and Arenas 2017; Perry 2004, 2005). These are commonly found in archaeological sites throughout South America and lower Central America and are used today by Afro-Caribbean groups throughout Central America and the Caribbean.

By the early 20th century, the majority of the Pech no longer used pottery but relied exclusively on iron pots for cooking. In rare instances where pottery production is recorded, it is made using the coil method followed by pebble polishing (Lentz 1993:360). Firing takes place in open pits and pottery is sometimes incised but not slipped or painted. Gourds or calabashes (from the *jicaro*, *guira*, or *guacal* trees, identified as *Lagenaria siceraria* or *Crescentia cujete*) are halved, emptied of their contents, and dried for numerous uses. They were sometimes used for water transport and, most importantly, served as multipurpose vessels in place of cups, bowls, and plates (Conzemius 1927:286, 288). They were also perforated to produce sieves. Sometimes a knife was used to carve the surface of these vessels, and the motifs included geometric designs, animals, and trees (Conzemius 1927:288). Large, decorated wooden spoons were also used to stir the food. These details highlight the importance of considering perishable food preparation and serving utensils that were most certainly used in prehispanic settings but are not preserved in the archaeological record.

Turning to major dishes and meals, two primary dishes are made from manioc (Figure 3-2, Table 3-2). The first is a wine called *muñía* by the Pech, more commonly known as *chicha*. Literature on the behavioral chains involved in *chicha* production and consumption in the Andes is extensive (e.g., Hastorf and Johanessen 1993; Jennings et al. 2005), though there are presumably local variations in these processes. The manioc is first peeled and washed before being cooked in a large pot. The cooked manioc is then grated and kneaded with water until it is thick, like a porridge. This porridge is placed in a storage container where yeast is added (either through chewing by women or from a leftover yeast from a previous batch). Hot water is then added, and the mixture is covered and left to ferment for 1-3 days. The resulting beverage is sieved through the teeth, with the strained materials being spat on the ground. For festivals and

ceremonies, Pech used canoes (*cayucos*) to brew large quantities of *chicha*. This practice is known since at least the Colonial period. These canoes are made of a large tree (i.e., *Ceiba* spp.) cut and carved with axes (Conzemius 1927:294; Griffin et al. 2009:54). *Chicha* can also be made from a variety of other tubers and fruits, and the process is identical (Conzemius 1927:294).

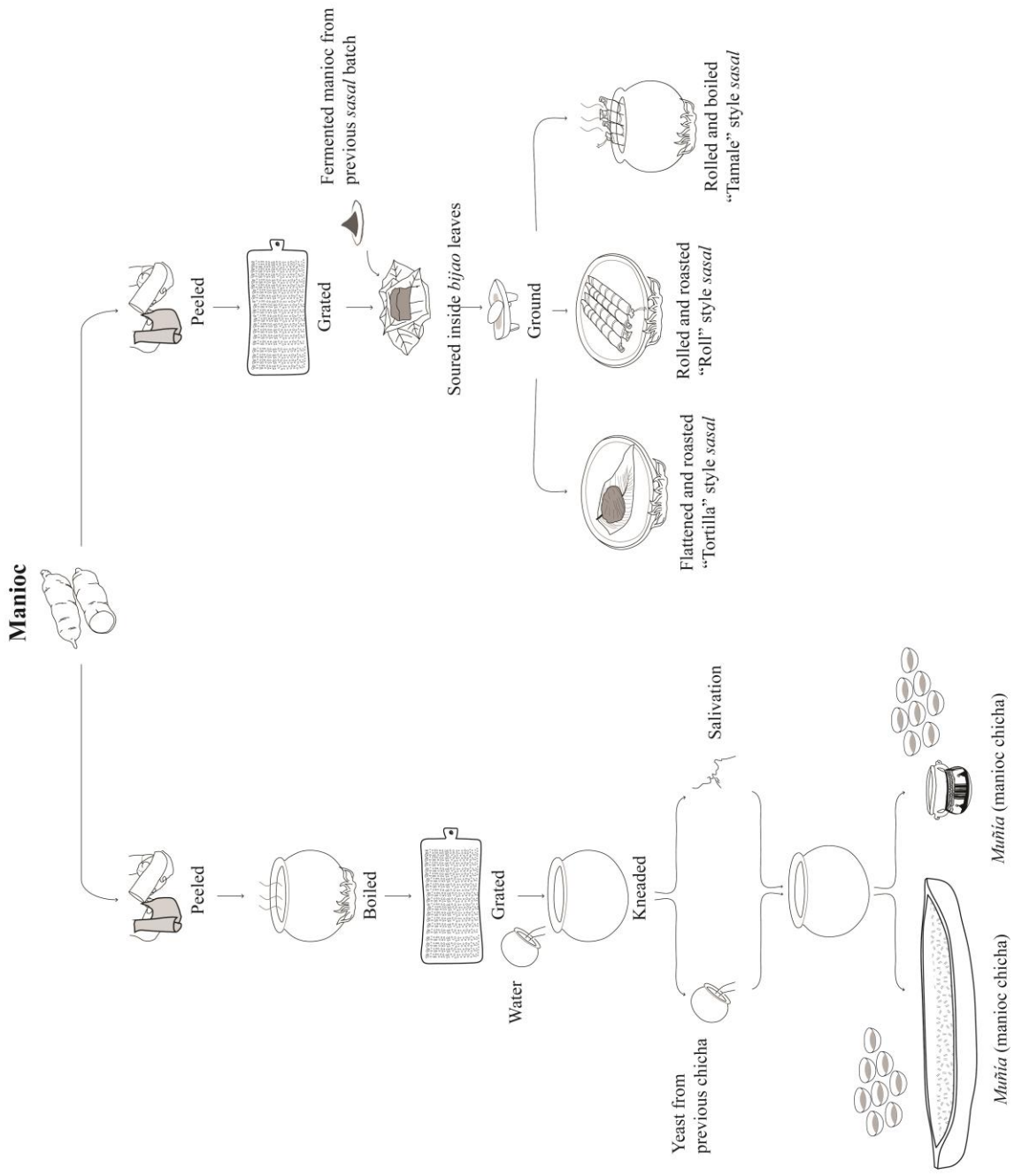


Figure 3-2 Behavioral chains for Pech dishes made out of maize (based on Conzemiens 1927; Griffin et al. 2009).

Table 3-2 Behavioral chains for major Pech dishes (based on Conzemius 1927; Griffin et al. 2009; Lentz 1993)

Resource	Food	Process
Bitter manioc	<i>Muñía</i>	<ol style="list-style-type: none"> 1. Manioc is peeled and washed well, then cooked in a large pot. 2. Cooked manioc is grated and kneaded with water into a watery porridge 3. Once cooled, porridge is placed in a canoe 4. To ferment this, women chew some of the porridge until it turns into a white paste, which is then added to the rest of the porridge 5. Another way to ferment is to add yeast from a previous <i>chicha</i> to the porridge 6. Hot water is added to the canoe and everything is covered in leaves and left to ferment 1-3 days 7. More water and sugar can be added, though it is also drunk as a bitter drink 8. Some of the yeast made by this <i>chicha</i> is saved for future <i>chichas</i> 9. To drink it, people sieve the <i>chicha</i> through their teeth and spit out the sediment on the ground
Bitter manioc	<i>Sasal</i>	<ol style="list-style-type: none"> 1. Manioc is peeled and washed well 2. Manioc is grated and put inside a bijao leaf for a day along with some fermented manioc from a previous batch 3. Manioc is then ground on a metate 4. The resulting mix is formed into a tortilla and wrapped in bijao leaves and skewer from the capulin cherry tree and is then roasted over a fire or boiled (if boiled it is called "tamale style") 5. <i>Sasal</i> is also made into a very large tortilla, with is roasted atop bijao leaves on a <i>comal</i> or griddle
Maize (fresh/sweet)	<i>Otía</i>	<ol style="list-style-type: none"> 1. Kernels are removed from 10 cobs 2. Kernels are put in a large gourd or pot with water and left to sit for a day 3. The mixture is wrapped in 4 bijao leaves 4. Mixture is checked 5 days later, if there is mold it is washed daily for three days 5. Sugarcane juice is added to the cleaned corn kernels and is left to sit for a week 6. It ferments in 9-10 days and in 12 days it is very strong 7. Conzemius says this <i>chicha</i> is made by making corn tamales that are chewed by women who then spit it out into a canoe to let it ferment

Maize (fresh/sweet)	<i>Atole</i>	<ol style="list-style-type: none"> 1. Kernels are removed with a machete 2. Kernels are ground and left to sit for a day 3. Kernels and juice are sieved through a gourd sieve to get rid of the lining 4. Pulp and juices are boiled
Maize (dry)	<i>Chilate</i>	<ol style="list-style-type: none"> 1. Kernels are removed from the cob and left to dry for a few weeks 2. Water is added to kernels and this is cooked for 15 minutes 3. The mixture is left to cool and is then mashed 4. More water is added along with allspice
Maize (dry)	<i>Pinol</i>	<ol style="list-style-type: none"> 1. Maize kernels are removed from a dry cob and toasted with allspice 2. Kernels are left to cool inside a gourd 3. Kernels are ground twice on a metate 4. Whenever a pinol porridge is needed, water and sugar are added to this mixture
Maize (dry)	Bitter corn bread	<ol style="list-style-type: none"> 1. Dry maize is ground on a metate 2. Maize is wrapped in leaves and left to sour, then is roasted on a fire
Maize (dry or green)	Tamale	<ol style="list-style-type: none"> 1. Maize kernels are removed and if the cob was dry they are left soaking overnight 2. Maize is ground on a metate, placed in a gourd and left overnight to "strengthen" 3. Maize is ground again and wrapped in leaves and boiled, or wrapped in leaves and a capulin cherry skewer and roasted
Maize (nixtamalized)	Nixtamal tamale	<ol style="list-style-type: none"> 1. Maize is washed and ground 2. Ground maize is mixed with some salt, wrapped in a leaf and boiled
Maize (nixtamalized)	Tortillas	<ol style="list-style-type: none"> 1. Maize is washed and ground 2. Water and salt are added and shaped into tortillas
Maize (fresh or dry)	<i>Pozol</i>	<ol style="list-style-type: none"> 1. Maize kernels are removed and cooked with water until soft 2. Cooked mixture is sieved through a gourd to remove the pericarp and is left to sit for a day 3. Cooked maize is ground on a metate and stirred with the water it was cooked with 4. Can be drank with sugar or by itself, though it is bitter 5. Drank in gourd cups or in a rolled up bijao leaf
Cacao	<i>Chocolate</i>	<ol style="list-style-type: none"> 1. Cacao is toasted to remove the seed coat 2. Dry maize kernels are toasted and left to cool 3. Maize and cacao are ground together on a metate or a hand grinder 4. The mixture is cooked with a lot of water and turns into an <i>atole</i> (porridge), then sugar is added

Meat	<i>Chilero</i>	<ol style="list-style-type: none"> 1. Source of salt (salt tree, salt liana or korpan palm) is cut and left to dry for a week. It is burned and its ashes are saved inside bijao leaves. 2. Ashes are stirred in a gourd with water and left to settle. 3. Ashes are sieved through cloth and the salted water is used to season the meat (Griffin: 50) 4. Meat is either roasted in skewers over a fire or boiled with wild and domesticated cilantro. 5. Large, special chilero chile is added to a ceramic pot along with wild and domesticated cilantro, garlic, salt water, meat broth (if meat was made by boiling), and meat. 6. <i>Chilero</i> has to be boiled every day so that it doesn't go bad. 7. Once consumed, all animal bones and uneaten remains (feathers, skin) are buried after being eaten so as not to anger the spirit owners of the jungle
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The second major Pech dish featuring bitter manioc is *sasal*, which has parallels with common uses and preparation styles of maize dishes, as seen below. For this dish, the manioc is peeled, washed, and soaked before being grated. It is placed inside a leaf (*Stromanthe hjalmarassoni*, Koer, known as *bijao*) along with yeast from a previous batch and left to ferment for a day. The mixture is then mashed with water using a small stone pestle, drained, and then formed into the shape of a tortilla (Figure 3-3). The resulting tortilla is either wrapped again in leaves, skewered, and roasted over a fire, or roasted on a leaf-topped *comal* or griddle (Figure 3-4). Alternatively, the wrapped tortilla can be boiled, in which case it is then called a “tamale style” *sasal* (Conzemius 1927:292; Griffin et al. 2009:43, 50, 76, 125; Lentz 1993:361). *Sasal* is eaten as a side dish in meals, much like the better-known corn tortilla today. It is also a central part of most Pech ceremonies and is considered a travel food because of its fermented state, which allows it to last for up to a month.



Figure 3-3 Tortilla style *sasal*. Photo by author.



Figure 3-4 Steps in the preparation and serving of "tamale style" *sasal*. Photos by Marlon Montes.

Maize is prepared and served in diverse ways among the Pech, some of which represent techniques that were adopted relatively recent (Figure 3-5). The most popular form of maize preparation is *otia* or maize *chicha*. Ethnohistorically, maize *chicha* was made by first making corn tamales out of fresh maize, which were then chewed by women and spit into a canoe and left to ferment (Conzemius 1927:294). More recently, this *chicha* is made from fresh maize

removed from the cobs and soaked in water in a large gourd or pot for a day. The mixture is wrapped in the same type of leaves used for the *sasal* and is left to sit for five days before sugarcane juice is added (a modern addition) and in 9-12 days is ready for drinking. This type of *chicha* is also made in canoes for festivals (Griffin et al. 2009:114).

Several other drinks are also made from either fresh or dry maize (Table 3-1). Various steps in these ensure that evidence of their production was likely to have entered the archaeological record, although it would be difficult to parse apart which drink was made as they all require similar technologies and steps. *Chicha*, made from any ingredient, is likely to have caused pitting on the interior of the pottery vessels in which it was left for any amount of time due to the fermentation process. Unfortunately, many groups use utilitarian cooking and storage jars for this purpose (Skibo 2013:152), or, as is likely the case in the northeast, containers were made from other, perishable materials. In the future, multi-technique residue analyses might help address this issue (e.g., McGovern et al. 2005).

Other maize-based dishes served as solids include significant amounts of maize grinding in their preparation. The similarities between preparation steps for the *sasal* and the Pech tamale suggest that this preparation process may have been adapted to include maize (and archaeological evidence from the present study supports the earlier adoption of manioc forms of these dishes among the Pech, as elaborated upon below). The tamale is a traditional Mesoamerican dish consumed as part of everyday meals, possibly dating as far back as the Formative period in southeastern Mesoamerica (Morell-Hart 2011). The fermentation steps in the preparation of bitter maize bread and tamales reported among the Pech are not widely reported elsewhere, especially in Mesoamerica where maize use is well documented (e.g., Staller and Carrasco 2010).

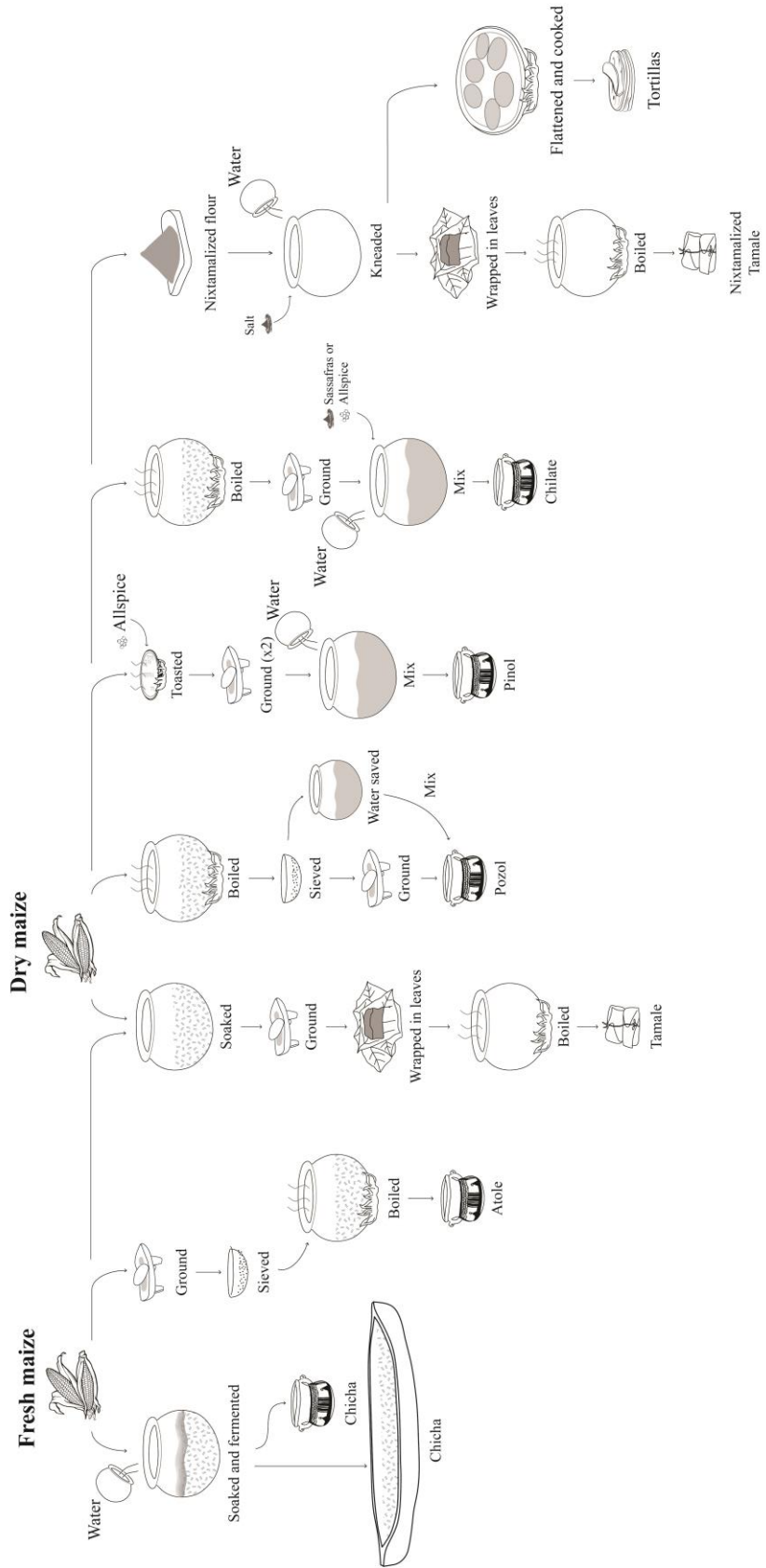


Figure 3-5 Behavioral chains for Pech dishes made out of maize (based on Conzemius 1927; Griffin et al. 2009).

Nixtamalization is the process of boiling maize with lime or ash in order to remove the tough outer shell of kernels, or pericarp (Figure 3-6; Cheetham 2010:346). It also has numerous nutritional advantages to unprocessed maize. After boiling, the nixtamalized maize is rinsed in clean water using a ceramic colander, perforated gourd, basket or jar. The resulting *nixtamal* is mixed and ground with water to make *masa*, which can then be formed into either tamales, which are formed around a meat or vegetable filling, wrapped in leaves or husks, and steamed or boiled, or tortillas, which are grilled on *comales* (Cheetham 2010:346-348). Evidence for the nixtamalization process in the archaeological record usually comes in the form of ceramic colanders while tortilla production is tied to the appearance of *comales* associated with nixtamalized corn. Evidence for nixtamalization occurs much earlier than *comales*, suggesting tamales were the likely earlier form in most of Mesoamerica (Brumfiel 1991; Cheetham 2010:349).

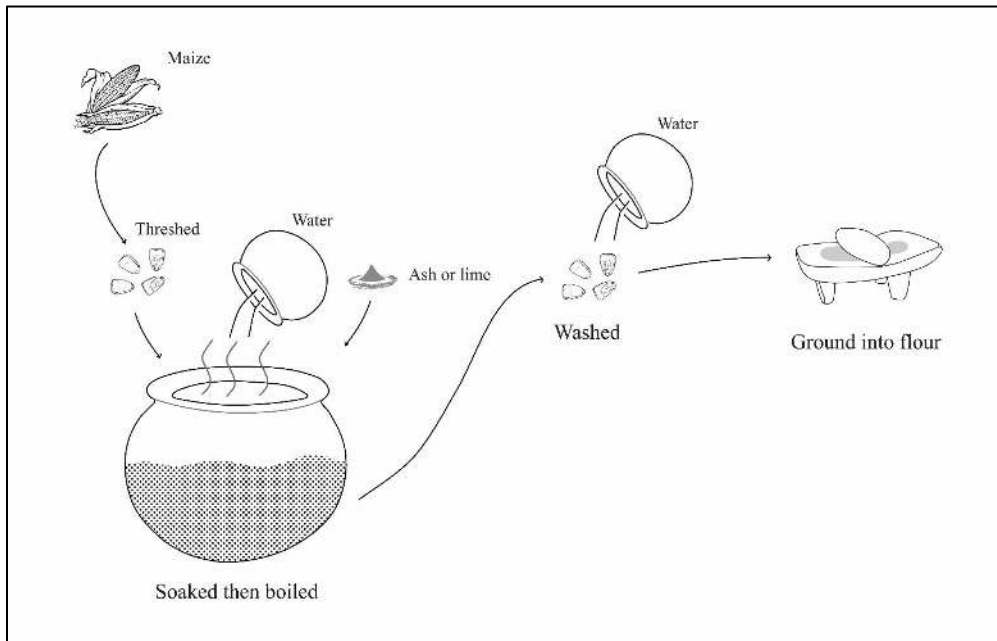


Figure 3-6 Behavioral chain for the nixtamalization process (after processes described in Cheetham 2010).

3.3.2 Meat and seafood

Among the Pech, *chilero* is a popular meat stew that is still prepared today (Griffin et al. 2009:50, 75, 79, 113). Its preparation requires a source of salt, usually obtained from the ocean or from the ash of certain trees and palms (see Table 3-1). Meat seasoned with salt is either roasted on skewers over a fire, which might produce burnt bone, charcoal, and fire-cracked rock in the archaeological record, or it is boiled in a pot. In traditional preparation methods, the special *chilero* chile (*Capsicum* spp.) is added to a ceramic pot along with cilantro (wild or domesticated), garlic, salt, and with the meat itself or meat broth (Figure 3-7). It must be boiled every day so that it does not go bad.



Figure 3-7 Steps for the preparation of *chilero*. Photos by Marlon Montes.

Chilero was originally only allowed to be eaten by men, according to modern Pech accounts (Griffin et al. 2009:75). The most preferred meat as recorded by Conzemius (1927:290) was that of the peccary. Historically, hunting parties would leave for days at a time and the resulting catch was smoked on green wood grills without salt for transport back to the

community. This was a task performed exclusively by men, and good hunters gained the respect of the community (Conzemius 1927:289-290). All remains of a hunting or fishing expedition or camp (e.g., tents, smoking racks, bones of animals eaten, body parts not taken back, feathers, and skin) were buried before the hunting party returned to the main settlement (Griffin et al. 2009: 83). Many of the animals identified from previous excavations are still hunted today (Healy 1983). Notable exceptions include the manatee and large felids, which are now rare in the region. Iguana is still a common source of food (Griffin et al. 2009:30). In contrast, otter, recovered in our excavations and those of Healy (1978a), is unknown as a food resource in the zooarchaeological assemblages of Mesoamerica and Central America. Today animals are hunted with shotguns and bows and arrows with metal tips, though in the past arrow heads were made of obsidian and animal bone (Conzemius 1927:290).

Historically, fishing was common and sometimes undertaken as a large communal activity. Fishing now employs metal hooks, wooden harpoons, or a special plant that poisons and stuns fish so that they are easily captured (Conzemius 1927: 290). Shellfish are not mentioned in historic accounts or modern ethnographies of the Pech. However, ecological surveys of the area and of neighboring or environmentally similar areas provide some useful contextual information about how shellfish are generally harvested and processed (Table 3-3).

Table 3-3 Behavioral chains for shellfish harvesting and processing (based on Acosta 2016; Buesa 1997; MacKenzie and Lopez 1997; MacKenzie and Stehlik 1996).

Species	Common Name	Behavioral chain
<i>Polymesoda placans</i> <i>Donax denticulata</i>	Clams	<ol style="list-style-type: none"> 1. Harvested in canoes during low tide (<i>P. placans</i>) or by hand near the surf zone of beaches (<i>D. denticulata</i>) by mostly women and children 2. Most abundant in September and October 3. Eaten as often as 15 days a month by indigenous coastal groups in Nicaragua 4. Clams are first put in a bowl of clean water so they pump out sand inside 5. Clams are then boiled with a little water until the meat falls off 6. Clam meat is then made into other dishes or sold at the market 7. In Honduras the clam meat is added to soups with coconut milk and rice or fried with onions
<i>Crassostrea rhizophorae</i>	Caribbean oyster (Cuba)	<ol style="list-style-type: none"> 1. In Cuba fishermen approach oyster beds on canoe or by wading during low tide 2. The mangrove root where oyster grows is cut with a machete or small axe and is loaded onto a floating box made of palm leaf 3. Caught oysters are cleaned, sorted by size, bagged and sent to market
<i>Crassostrea rhizophorae</i>	Caribbean oyster (Nicaragua)	<ol style="list-style-type: none"> 1. Oysters are available year-round, though some households prefer to gather them during the rainy season, when the water is less salty and the meat is said to be softer 2. Main harvesters are women and teenage girls, though men do it too 3. Women will travel to the oyster beds by canoe wearing rubber boots and often gloves. Oysters are picked with one hand while the canoe is held with the other. 4. Oysters are put on the floor at home and shucked by women 5. Oyster meat is cooked. Oyster soup includes oyster, flour, onion, coconut milk, water, and black pepper. 6. Shells are tossed in piles near the home
<i>Melongena melongena</i> <i>Strombus gigas</i>	Conch	<ol style="list-style-type: none"> 1. Caught mostly in the summer, usually a men's activity, often only in a few households that specialize in this activity 2. Catchers will go out on a boat with snorkeling equipment and dive to gather the conch by hand

The most common species of shellfish encountered in excavations at Selin Farm were mangrove oyster (*Crassostrea rhizophorae*), followed by conch (*Melongena melongena* and *Strombus gigas*), and clam (*Polymesodia placans* and *Donax denticulata*) (Figure 3-8; see Elvir 2019; Elvir and Goodwin 2018; Healy 1983). In mangrove wetlands, mangrove roots where oyster grow are cut with a machete or small axe and loaded onto floating baskets made of palm leaves to be transported (Buesa 1997). Among the indigenous Rama of Nicaragua, the closest area for which there is data available, mangrove oysters are available year-round. Preference for rainy season harvesting was explained by less salty waters and softer meats. Women and girls are responsible for the majority of oyster harvesting and they travel to the oyster beds by canoe (Acosta 2016:13). Oysters that are caught are generally 50-75mm in length. Harvest returns can vary greatly, but a party of 20-35 people in 10-15 canoes can harvest about 2-3 bushels in 3 hours, adding up to 70-75 bushels a day (MacKenzie and Lopez 1997). A single household can gather nearly 500 kg of oyster in a month (Acosta 2016:13).

Once harvested, women usually shuck the oyster onto the floor at home and shells are tossed into piles near the residence. Oyster meat is cooked and a typical oyster soup includes a variety of spices and vegetables. Oysters are considered a secure source of protein when others are unavailable (Acosta 2016:15). Local fisheries in and around the Guaimoreto Lagoon today are contaminated by pollution from runoff caused by industrial activities in the Aguan Valley, primarily palm oil production. Oysters were found as recently as 20 years ago but are no longer actively consumed by local populations (MacKenzie and Stehlik 1996).



Figure 3-8 Oyster (*Crassostrea rhizophorae*) and conch (*Melongena melongena*) specimens recovered from Selin Farm.

Conch are currently harvested for both personal and commercial use by residents of the northern coast of Honduras and the Bay Islands. The average population density of conch is much lower than mangrove oyster, at 4-5 conch per 100 m². In the Bay Islands fishermen can harvest 2-3 conch a day but around La Ceiba, along the northern coast of the mainland west of Trujillo, higher numbers of 10-20 conch a day are reported. Conch are harvested mostly in the summer months (June-August) and up to 164 conch can be captured per month. This is a specialized activity performed by men in Honduras (MacKenzie and Stehlik 1996) and Nicaragua (Acosta 2016). Furthermore, among the Rama, this activity is only engaged in by some households (Acosta 2016:15). Queen conch (*Strombus gigas*) meat is considered too tough and is rarely eaten, but the shells are used for crafts.

Clams are harvested in canoes during low tide (*P. placans*) or by hand near the surf zone of beaches (*D. denticulata*) by mostly women and children. They are most abundant in September and October. Approximately 4 gallons of clams are harvested by hand in 3 hours in Nicaragua (MacKenzie and Lopez 1997) and three people together can gather roughly 1000 clams in about 5 hours (MacKenzie and Stehlik 1996). Around 270 kg of clams are harvested per

month by the Rama (Acosta 2016), where they are eaten as often as 15 days out of every month (MacKenzie and Lopez 1997). Processing of clams begins by placing them in a bowl of clean water to scrub them before boiling them with a little water until the meat falls off the shell. Clam meat is then made into other dishes or sold. In Honduras, clam meat is added to soups. Clams are one of the most prized resources among the Rama of Nicaragua (Acosta 2016).

3.3.3 Food and drink in ceremonies

Food and drink are a central part of any Pech gathering (Griffin et al. 2009:130). In ceremonies, *sasal*, *muñía*, and *otía* are always present (Griffin et al. 2009:129). However, some of the dishes are tied to particular ceremonies (Table 3-4). *Chilero*, for example, is eaten during birth ceremonies, though roasted meat is served in most other major ceremonies (Griffin et al. 2009:75). Ceremonies performed after the death of an individual are particularly interesting. Conzemius recorded details of the rituals as they were performed during the early 19th century:

“Immediately after death, the body is wrapped and sown in a blanket made of *tunu* bark and placed in the center of the house. The bed in which he slept is thrown outside; the house is also abandoned as soon as a new one is built, and when several people die in a household in a short period of time, the site is abandoned. Women, relatives of the deceased, braid their hair and do not take any food until after the burial, but they rarely cry. A *pipante* [canoe] serves as a coffin; in one half the body is placed and the other is used to cover it. They bury with the deceased some provisions and his personal effects: shotgun, machete, harpoons, bow, arrows, flint, tabaco, etc. For women the following is placed in the coffin: iron and ceramic pot, metate, etc. And for children the mother's milk in a gourd...however, they only bury the articles that are broken or have little utility. Before they killed the domestic animals (cows, pigs, chickens, etc.) and destroyed the fruit trees and the crops of the deceased, but this is no longer practiced today... Three days after a person dies, his family hosts a party and another nine days after... Thirty days after they host a party that is more important that they call ‘keska’ and one year after death the main feast to commemorate the dead is held, the ‘katik-ka’. Lots of people congregate in these [ceremonies], which are accompanied by strange dances, food and chicha.” (Conzemius 1927:300-301).

These traditions were still actively upheld by Pech groups living inland in the 1980s, as elaborated on here:

“The *Katokka* ceremony was done when the head of the household or anyone would die. For this ceremony the grieving family invited the other families and neighbors to go to the mountains to hunt, forming groups of eight to ten people and setting a date to return from the mountain. Women stayed home preparing other things such as the *munia*, *sasal*, a special mahogany canoe that measured five feet long and three feet wide where the *muñía* was prepared. Also, two large ceramic jars filled with drinks, which were distributed first and then the drink in the canoe. These two large ceramic jars were called *atahwa*; these drinks were prepared by two women of advanced age chosen exclusively for this task...” (Flores Mejia 1989: 90).

Following this ceremony, all remains from the feast including leaf wrappings, animal bones, and other waste were placed together somewhere where they would be left undisturbed.

Only part of this tradition was recorded in the Silin-Moradel community near Trujillo on the northeast coast in the early 2000s. Three days after a person died the family had a small ceremony where food and drink were be consumed by the family only. Nine days after death, the family hosted a large feast for the entire community that included a canoe of yuca wine and a canoe of *chicha*, roasted meat, and *sasal*. The morning after this feast all food remains were collected and placed inside a large *tapukah* leaf, which was then placed by a large tree (either mahogany or ceiba) (Griffin et al. 2009:80).

For ceremonies, the Pech make whistles and flutes out of reeds or animal bone. Although not common today, in the past women made and wore jewelry of pierced shells and seeds suspended on knotted cordage and men would wear pendants of jaguar or puma teeth on outfits or hats during these ceremonies (Conzemius 1927: 283-285). Inedible or otherwise unutilized parts of animals were regularly buried. According to local informants, this practice was necessary to keep everything in order because, “the owner spirits of the forest, of the mountains,

or of the animals will pass by and they do not like seeing bones and feathers left thrown in disorder on the ground” (Griffin et al. 2009:120).

The most important role in Pech ceremonies was that of the shaman, or *watá*. This individual, traditionally a man (though women were allowed to become *watá* in the 1980s; see Flores Mejia and Griffin 1991), served as the main conduit between the community and the supernatural world (Conzemius 1927:297; Flores Mejia 1989:96; Griffin et al. 2009:72). Besides being in charge of conducting all religious ceremonies in the community, the *watá* served as healer, diviner, caster of spells and chief and military leader, though this latter role was lost following the Spanish conquest (Conzemius 1927:297; Flores Mejia and Griffin 1991:95). During ceremonies, the *watá* was in charge of reciting and leading prayers and playing musical instruments such as the flute, drum, and maracas. This role likely has prehispanic roots, as do other the shamanistic traditions common in lower Central America (see Hoopes and Fonseca 2003). The figure of the *watá* has not existed since the mid-20th century, though traditional healers still exist in all Pech communities (Griffin et al. 2009:72).

Table 3-4 Major Pech ceremonies with descriptions of major actions taken and foods eaten during each (based on Conzemius 1927; Flores and Griffin 1991; Griffin et al. 2009).

Ceremony name	Purpose	Description	Food eaten
<i>Aye kech</i> (Griffin) <i>Maihhnewa</i> and <i>Tasnewa</i> (3- and 9- days, Conzemius)	To celebrate a newborn	1. 3 days after birth the community was invited to eat and drink. During this time the mother and child bathed in a river and the father hosted a feast 2. At 9 days of birth another celebration is had where guests are given food and <i>chicha</i> 3. 30 days after the birth a big party is held. A cow is killed or a communal hunt is done to capture enough food to feed everyone	<i>Sasal</i> Roasted meat Maize <i>chicha</i> Manioc <i>chicha</i>
Maihnewa (3 days) Tasnewa (9 days) Keska (30 days) Katik-ka (1 year)	Early 20th century burial ceremony	1. The body is wrapped in a sheet made of tunu tree bark which is then sewn closed and placed in the center of the house 2. Person's bed is thrown away, their house is left abandoned 3. A canoe is used as a coffin 4. Men are buried with their shotgun, machete, harpoons, bow, arrows, flint, tinder, tobacco 5. Women are buried with an iron and ceramic pot, metate 6. Children buried with a gourd bowl filled with breastmilk 7. Only broken or low utility items are buried with deceased 8. All resources owned by person used to be destroyed (animals, fruit trees, crops) but not anymore 9. Person is also buried with a small (1m long) canoe to carry them to afterlife 10. Ceremonies are carried out 3, 9 and 30 days and 1 year after person dies. 11. Family members of deceased host these celebrations, which increase in importance over time (most important is 1 year after) 12. Feasts are carried out in hidden/secret locations where outsiders cannot come in	"Food" <i>Chicha</i>

No recorded name	2000s burial ceremony	<ol style="list-style-type: none"> 1. Wake held the night the person died 2. Three days later the family of the deceased prepared a meal atop leaves for the deceased: 3 small gourds (<i>chicha</i>, yuca wine, and chocolate), 3 <i>sasal</i> rolls and 3 pieces of roasted meat. Food was left untouched until midnight, when the family would eat and drink it. Chocolate would be sprinkled around the house with a stick. 3. 9 days later the entire community was invited to a feast with yuca wine and <i>chicha</i> in canoes, meat and <i>sasal</i>. The day after all waste was gathered in <i>tapukah</i> leaves and placed by a large tree (ceiba or mahogany) 4. Traditional instruments were played 5. Person buried in an area exclusive for Pech, where no ladinos/mestizos were buried 6. A special dance was performed 9 days after the person died 	Maize <i>chicha</i> (in canoe) Manioc <i>chicha</i> (in canoe) Chocolate
<i>Sumbré</i>	To heal following a snake bite or a sharp pain	<ol style="list-style-type: none"> 1. Friends and family of afflicted were invited 2. Wata would use plants on the wound, blow on it with a reed straw, and recite prayers 	<i>Sasal</i> Tamale Roasted meat Fish Maize <i>chicha</i> (in canoe) Manioc <i>chicha</i> (in canoe) <i>Pozole</i> (in canoe)
<i>Kao waika arka sukwa</i>	Blessing a new house or when a new milpa was planted	<ol style="list-style-type: none"> 1. Leaves from a plant placed in water and water was sprinkled around the house while prayers were recited 2. House also blessed with <i>chicha</i>, yuca wine, and chocolate 3. Music was played 4. Sometimes people from other communities were invited 	Maize <i>chicha</i> Manioc <i>chicha</i> Chocolate

Preparation practices for ceremonies were not a central focus of ethnographic accounts among the Pech, leaving us to look to other sources. Among the Conibo and Shipibo of the Amazon region of eastern Peru, the major traditional feast (*abi shreati* or “big drinking”), provides some information on feasting preparation practices as they were recorded during ethnographic fieldwork in the region in the 1970s (DeBoer 2001). The celebration, difficult to summarize in purpose but essentially a puberty rite for young women, lasted 3-8 days. Preparation, however, began as much as two to three years in advance. This preparation entailed the clearing of forests for the planting of manioc, sweet potato, and sugar cane used to make manioc *chicha* and cane liquor (DeBoer 2001: 218). Men hunted for meat, but because preparations took so much time and meat storage was a problem, they often kept animals alive but captive. This included catching and penning manatee. Additionally, new pottery vessels were manufactured, especially large jars for beer storage and mugs for serving. Women made new clothing and beaded ornaments to dress hosts and guests. Sometimes even a large guest house was constructed. To meet these demands, feasts of this size were often co-sponsored by one to five men, usually the fathers of the girls undertaking the rite (DeBoer 2001:218). Aspects of these preparations seem to mirror feasting preparations that took place in prehispanic northeastern Honduras, particularly the manufacture of new pottery vessels, although many of the activities described would have left little to no archaeological signature.

Additionally, ethnographic examples from the Lake Titicaca Basin of Bolivia point to differences between everyday meals and feasts in the preparation of food. Boiled foods dominate everyday meals and are usually made up of starch-based foods with some added meat or fish (Hastorf 2012:220). Feasts, however, focus on steaming and roasting methods of preparation that require communal preparation outdoors. Earth ovens (*watias* or *pachcamancas*, in Aymara and

Quechua respectively) are, “built in the open air and require heating up cobbles or dirt clods in a make-shift hearth, excavating and lining a pit with the hot stones, layering vegetation and food, then covering the pit with soil or simply placing the food amongst the heated clods and covering them with dirt. This mound then cooks the food items for some hours” (Hastorf 2012:221). The food is given a different taste through these methods that deviate from everyday preparation techniques. Usually multiple root crops are added to the pit which also makes the range of ingredients more diverse than daily meals. Steaming and roasting in this manner in the past would result in an abundance of fire-cracked rock (FCR), stone that has been altered from exposure to heat by human action. While no direct evidence of hearths was found during our excavations at Selin Farm, these features are known from the site (Healy 1978a) and archaeological evidence for roasting pits and/or earth ovens is often indirect. Historic and archaeological examples from other regions suggest earth ovens were often dug out of banks or clay deposits on the periphery of domestic and communal areas.

3.4 Summary

Historic, ethnographic, and archaeological data from northeast Honduras and neighboring regions provide a picture of how past groups may have used the varied resources available to them. From these accounts we are also provided with a view of related tools and technologies that would have been essential in the preparation of these resources in accordance with the manner in which they are traditionally prepared, consumed, and discarded by groups indigenous to this area, particularly the descendant Pech community, to the best of our current knowledge.

Direct analogies between current and past groups are problematic for many reasons. The assumption of continuity or stasis within any group but especially among populations that were

so profoundly changed by European contact is not intended here. Considerations of behavioral chains related to foodways are meant to serve as a source of inspiration for understanding the archaeological contexts and artifacts encountered in this region. All inferences made from archaeological datasets must be supported by evidence from archaeological contexts. In the following chapter, the behavioral chains presented here are used as a heuristic device for understanding how prehispanic northeastern communities of consumption may have been organized and the materials and resources they might have used to express and negotiate local identities and external affiliations. The hypotheses and expectations built using these behavioral chains and a communities of practice framework are tested against the data in the data chapters that follow.

CHAPTER 4 :
IDENTITY AND STYLE: COMMUNITIES OF PRACTICE AND CONSUMPTION IN
BORDER AREAS

This chapter begins with a discussion of traditional studies of style and identity and archaeology, highlighting the limitations of these approaches but also their foundational importance for later studies. It then moves into a discussion of the communities of practice framework adopted in the current study and the benefits of this approach for the archaeological study of identity. Recent developments in the research of communities of consumption are then addressed, as well as their articulation with long-standing bodies of theoretical knowledge surrounding foodways and feasting studies in archaeology. The advantages of these approaches are highlighted with consideration of opportunities for both theoretical and methodological improvements in archaeological investigations. Critiques and avenues for addressing these issues are then presented. Finally, current understandings of the arrangement and nature of communities of practice along the southeast Mesoamerican border are summarized and contrasted with previous models concerning the processes of identity formation and maintenance in northeast Honduran communities.

4.1 Style, borders, and identity in archaeology

Identity is how individuals and groups define themselves in relation to, or in contrast with, others (Meskell and Preucel 2008:121). Comparisons and classifications may be based on shared ancestry, occupation, gender, memories, or activities and practices (Janusek 2004:16). Identity is not singular, but rather can be defined or expressed at multiple scales. It can also be based on multiple, often overlapping elements, with precedence of elements expressed dependent upon time, place, or audience (Conlin Casella and Fowler 2005; Insoll 2007:6; Schortman and Nakamura 1991). In contrast with current understandings of its complexity, traditional archaeological investigations of identity focused on tracing the boundaries of culture areas assumed to be discrete, homogenous, and static peoples or cultures, classifications that were often equated with the modern notion of ethnicity (Jones 1997, 1999). The processes of identification and differentiation involved in creating boundaries and groups were overlooked in favor of a view that considered ethnicity an inherent attribute of individuals or groups. The primary tool for discerning these groups was equally as simplistic. Stylistic attributes were viewed as passive markers that served to delineate culture areas (i.e., Kirchhoff 1943; Kroeber 1939).

Many early studies of identity in archaeology were concerned with ethnicity. It was assumed to be the only form of identity discernable in the archaeological record (see Jones 1997, 1999). Barth's (1969) seminal work on issues of ethnicity and identity served to complicate analyses to some extent. Arguing against static interpretations of ethnicity, he emphasized that like the borders of the present, ethnic boundaries of the past constantly shifted, or were altogether abolished. His perspective on the heterogenous ways in which identities formed foreshadowed many recent developments on the subject:

“It is important to recognize that although ethnic categories take cultural differences into account, we can assume no simple one-to-one relationship between ethnic units and cultural similarities and differences. The features that are taken into account are not the sum of 'objective' differences, but only those which the actors themselves regard as significant. Not only do ecologic variations mark and exaggerate differences; some cultural features are used by the actors as signals and emblems of differences, others are ignored, and in some relationships radical differences are played down and denied. The cultural contents of ethnic dichotomies would seem analytically to be of two orders: (i) overt signals or signs - the diacritical features that people look for and exhibit to show identity, often such features as dress, language, house-form, or general style of life, and (ii) basic value orientations: the standards of morality and excellence by which performance is judged... In other words, ethnic categories provide an organizational vessel that may be given varying amounts and forms of content in different socio-cultural systems” (Barth 1969:14).

Barth’s work influenced others, but early concerns for the relationship between style and processes of identity construction and maintenance are generally traced back to the information-exchange theory of Wobst (1977). He argued that style served a functional role related to communication and initiated the well-known debate on the passive or active nature of style (Sackett 1982, 1985; Wiessner 1983, 1984, 1985). Sackett argued for the importance of artisan choice in variation and how style may demonstrate the information gained historically or socially by individuals, but not necessarily cultural messages. Wiessner followed the iconological approach espoused by Wobst more closely and argued that style not only conveys messages but can be employed strategically in social relations.

Defining style as, “formal variation in material culture that transmits information about personal and social identity,” Wiessner (1983:256-258) distinguished two strategies in which the passage of information is accomplished: emblematic and assertive. The first, emblematic, possesses a clear referent, and transmits a specific message to a targeted group. Assertive styles are those based in providing support for personal or individual identity but do not necessarily aim this message at a particular recipient, and their main use in earlier societies may have been in

individual expression in relation to reciprocal interactions. Further, Wiessner outlined expectations regarding the assemblage created by emblemic styles:

“Through time, emblemic style would be expected to change gradually only with errors in reproduction and to undergo rapid change only when its referent changes or when it is detached from its referent...Because it carries a distinct message, emblemic style should undergo strong selection for uniformity and clarity...and because it marks and maintains boundaries, it should be distinguishable archaeologically by uniformity” (Wiessner 1983:257).

The concept of emblemic style has been adopted by previous researchers to explain the persistence of predominant motifs and widespread geographic similarity in northeast Honduran ceramic traditions (Beaudry-Corbett and Cuddy 2001; Cuddy 2007). Further details and issues with these interpretations are elaborated below.

Contemporary studies in archaeology acknowledge both the dynamic and contested nature of identities as well as the complex and recursive role of materials in processes of identity expression and negotiation. This concern for agency, both human and non-human, places most of these approaches firmly within modern social archaeology (see Meskell and Preucel 2008). While style is still a central concern for many studies of identity, archaeologists recognize that only limited aspects of identity are consciously expressed in the form of mutually understood symbols (DeMarrais et al. 1996). Additionally, stylistic elements of material goods are not often bound to identities in clear cut ways that follow geographic or ethnic boundaries but rather can have differentiated meanings within seemingly homogenous groups (Bowser 2000; Bowser and Patton 2008). Nor are decorative elements the only features of materials that may inform on the social identities of their producers and consumers, as variability in form, function, and production can be equally as distinctive among or between groups (Dietler and Herbich 1998;

Dobres 2000; Hegmon 1998; Sassaman and Rudolphi 2001). Furthermore, it is understood that these elements are not passive reflections of a static identity, but rather are open to manipulation and negotiation through interpersonal interaction (Jones 1997, 1999; Meskell 2002, 2007).

To understand how these processes occurred and the underlying causes behind them, a framework that allows us to consider identity rooted in practice is necessary. Rather than attempting to assign identities in the past to specific ethnic or linguistic groups, the concept of a community of practice (Lave and Wenger 1991) allows us to trace the groups of people that came together to perform a set of practices using particular objects, creating groups of people linked by shared practices (and, often but not always, identities) in ways that may have cross-cut traditional boundaries. A practice-based approach to understanding community in the archaeological record avoids many of the pitfalls commonly associated with use of the community as a unit of analysis equivalent to archaeological sites (Canuto and Yeager 2000). Instead of tracing bounded entities on the landscape, we might ask: Who were the people that came together to use shared symbols of identity? How were the symbols being used? These communities of practice, collectively united in the creation and maintenance of the shared identity symbolized in material form, came together to reinforce and redefine the meanings of the materials and practices involved.

4.2 Communities of practice

The concept of communities of practice has roots in learning theory. The term itself was coined by social anthropologist Jean Lave working together with sociologist Etienne Wenger. A community of practice is essentially a group of people who engage in a process of collective learning. Rather than conceptualizing learning as an isolated activity undertaken by an

individual, Lave and Wenger (1991) argued that learning takes place through engagement with others who are involved in similar enterprises (the domain) and with whom we interact regularly (the community) and together develop and share strategies and resources to succeed at a shared task (the practice). These shared strategies and the issues they seek to address can vary in scale from broad (i.e., how to maintain group cohesion in a border region during social and political change) to specific (i.e., how to shape and decorate vessels appropriate for use in feasts or what foods and preparation styles are suitable for a commensal meal). Sometimes the strategies and materials from multiple communities of practice may overlap.

Interaction with others does not constitute a community of practice. A group must possess three elements: the domain, the community, and the practice (Lave and Wenger 1991). The community of practice involves learning situated in interaction but also within historical trajectories that have shaped the broader social realities within which those interactions are embedded (Wenger 1998). Because practices are repeated and reproduced, communities of practice persist over time. Concerns with the dialectical and relational nature between agents, objects, and system in the reproduction of communities of practice and the broader structures that pattern practice echo those of practice theory and agency (e.g., Bourdieu 1977; Giddens 1979).

Frameworks employing the communities of practice concept were adopted in archaeology by those looking to avoid the limiting factors imposed by traditional systems of classification that used ethnic, linguistic, or geographic features to define and delineate archaeological cultures. The concept is well-suited to studies of identity in archaeology because it allows for the possibility that individuals and groups belonged to multiple and sometimes overlapping communities of practice simultaneously (Roddick and Stahl 2016:9). This is a

reality that archaeologists have begun to grapple with by using network analyses (Latour 2005; Mills 2017). While not all communities of practice are indicative of shared social identities, this approach supplies a framework of analysis with which archaeologists can explore group identities that are actively built around practice. It essentially serves as an alternative unit of analysis to avoid homogenizing taxonomies in traditional archaeological studies of identity, such as cultures or culture areas (Roddick and Stahl 2016:3).

Concepts within the framework also address issues of how different communities of practice are articulated with each other, providing a multi-scalar perspective essential to its implementation within archaeological studies. While regular interaction or events connect participants in communities of practice, multiple communities of practice that share broadly similar and historically connected practices are collectively referred to as a, “constellation of practice” (Wenger 1998). Constellations of practice are a productive way to conceptualize identities that exist at a regional scale but are not tied to a particular group (Roddick 2009:80).

These communities are linked by “boundary objects,” objects that bridge communities of practice but may have different meanings and values associated with them, and “brokers,” members that participate in multiple communities of practice and serve to share and integrate new practices in both contexts (Wenger 1998:105-110). These terms and concepts are especially useful in border areas, where there is likely to be a disconnect between but coordination among communities of practice, and also to understand and explain cultural similarities that span vast geographic areas and time depths and are therefore not readily explained through traditional models of interaction and shared identity. While brokers, the people who move between constellations of practice, are nearly always invisible in the archaeological record, boundary objects that result as the transmission of knowledge through brokers are often traceable.

The term boundary objects is borrowed from a paper by Star and Griesemer (1989) on the nature of collaboration in science, particularly the role of diverse scientific objects (i.e., “boundary objects”) that inhabit multiple intersecting social worlds in managing tensions among groups of actors by aiding the translation of different viewpoints. These objects are described as, “plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites” and as having, “different meanings in different social worlds but their structure is common enough to more than one world to make them recognizable, a means of translation” (Star and Griesmer 1989:393). The authors argue that the creation and management of boundary objects is key to the development and maintenance of communication across intersecting but autonomous social worlds. These objects, “have the capacity to bridge perceptual and practical differences among communities and facilitate cooperation by emerging mutual understanding” (Huvila et al. 2014:1).

Although there are many types of boundary objects, the “ideal type” is an object that is abstracted from all domains. It is fairly vague, but as a result it is adaptable. This type of boundary object,

serves as a means of communicating and cooperating symbolically – a ‘good enough’ road map for all parties...Ideal types arise with differences in degree of abstraction. They result in the deletion of local contingencies from the common object and have the advantage of adaptability (Star and Griesemer 1989:410).

Importantly, if there is no consensus among the groups connected by the boundary objects, the object will cycle between forms that are too specific or too standardized to be of use in fostering communication or cooperation (see the cycle of standardization, Star 2010:605). This provides

an additional process for consideration in community of practice approaches, particularly when conceptualizing sources of change in boundary objects recovered from archaeological settings.

Overall, archaeological approaches to communities of practice place an emphasis on the importance of materials (i.e., “non-human actors”, Joyce 2014:150) in the relational nature of cultural reproduction. Initially, given the materials focus of archaeological studies, the emphasis on learning within the framework lent itself most readily to studies of craft production and apprenticeship (e.g., Wendrich 2013), many in relation to ceramic production (e.g., Cordell and Habicht-Mauche 2012). Recent studies have adopted the framework to consider the situated learning and cultural reproduction that takes place in contexts of consumption as well (Mills 2016; Roddick 2009).

4.3 Communities of consumption

Communities of consumption, like communities of practice, bring people together through shared practices that stem from common understandings of how things should be used (Mills 2016; Roddick 2009). While there are certainly complex relationships between contexts of production and consumption (see Dietler and Herbich 1994), groups and identities may form around shared beliefs and practices of consumption that are entirely independent of communities of production. Each community may reveal connections and disjunctures that are unclear in the other, necessitating the study of each in its own right, or, ideally, in conjunction with each other (Stahl 2010).

The communities of consumption approach articulates well with long-standing bodies of theory and practice in archaeology that evaluate the conspicuous consumption of goods and resources that occur in feasting contexts (e.g., Dietler and Hayden 2001). The goal of the present

study is to understand the connection between the symbolic expression of identities through pottery style and foods, which come together in feasts. Because contexts of consumption are where social goods are given meaning and value (Douglas and Isherwood 1979), evaluating where and how these materials are used together in feasts (i.e., the community of consumption that brought these materials together in practice by social actors) and how the form and content of those feasts varied over space and time allows us to better understand their use as symbols of community identity.

4.3.1 A social archaeology of food

Among the various approaches to food studies within archaeology, there is a relatively recent movement towards a “social archaeology of food” that reflects the growing recognition by archaeologists that people eat meals, not species (Hastorf 2017:2). These have their own bodies of literature within particular specialties, namely social paleoethnobotany (e.g., Morehart and Morell-Hart 2015) and social zooarchaeology (e.g., Russell 2012). Rather than providing static lists of plants and animals consumed and their likely uses (subsistence, medicinal, economic, etc.), studies undertaken within this theoretical framework consider issues of inequality in adaptation to and interaction with the environment, as well as the historically situated nature of these processes. Increasingly, these concepts are also being applied to understandings of identity and ritual practice in the past, highlighting the fact that not all uses of plant and animal resources are utilitarian in nature and that food, and how it is produced and consumed, can be studied in the same way as other types of artifacts in these realms.

In this view, food, like other forms of material culture, is used in the negotiation and maintenance of social identity, and choices about the resources used and the methods in which

they are prepared and served can create, reinforce, or alter social identities in ways analogous to the uses of style on ceramic vessels (Atalay and Hastorf 2006; Bray 2003; Dietler 2007; Mills 2002; Pollock 2012; Twiss 2007). Foodways is a term that encompasses the whole of these choices, including the food-related technologies, resources and practices of a particular group (Goody 1982). In other words, it is, “the whole interrelated system of food conceptualization, procurement, distribution, preservation, preparation, and consumption” (Anderson 1971:2).

Foodways are an extraordinary lens for examining the articulation of material culture with practice as they require near constant culturally imbued action to transform raw foods into edible goods (Levi-Strauss 1969). The biological need for food and the ability to literally incorporate food as, “embodied material culture” lend weight to its prominent presence and potency as a material symbol across various settings (Dietler 2001: 72; Hastorf and Weismantel 2007). Food likely has multiple social roles, perhaps resisting change in domestic settings, but rapidly shifting importance in politically charged contexts, such as feasts (Brumfiel 2004; Dietler and Hayden 2001; Mills 2002, 2007; Schortman and Urban 2014).

Repeated food-related activities in any social setting leave socially meaningful traces that are visible in the archaeological record (Twiss 2012). Intentionally structured deposits (i.e., Richards and Thomas 1984), are particularly useful in studies of communities of consumption. These deposits are representative of repeated actions that have some level of intentionality by actors and are often highly structured because they recall and recreate historic traditions (Joyce 2008: 27-28; Pauketat 2000; Pauketat and Alt 2003). Additionally, and importantly, because these deposits involve the reproduction of practices over time, they also allow for the detection of innovations and nuances in how those practices are reproduced over time. Whether accumulations are structured intentionally or through habitual practices, depositional histories

can reveal information about consumption and discard practices and help make connections between these processes and how they were implicated in cultural transformations at larger scales both temporally and spatially (Mills 2016:256). Often, and as is the case in this study, structured deposits are the result of ritual deposition of refuse from feasting events.

4.3.2 Identifying and categorizing feasts

Although related to foodways and consumption studies, feasting is a topic of study in its own right (Hayden and Villeneuve 2011). While feasting practices can vary widely both within and among groups, feasting is essentially defined as the communal consumption of food and/or drink (Dietler and Hayden 2001:3). With such a broad definition, the identification of feasting contexts can be difficult. Many of the traditional factors that are used to identify feasts measure indicators relative to everyday or ‘usual’ eating practices (Figure 4-1). Not all indicators are universal, and special attention should be paid to culturally relative norms of consumption and discard (Dietler 2001; Twiss 2007, 2012). Where possible, qualifiers like ‘large’ and ‘unusual’ and ‘special’ should be expressly discussed and defined.

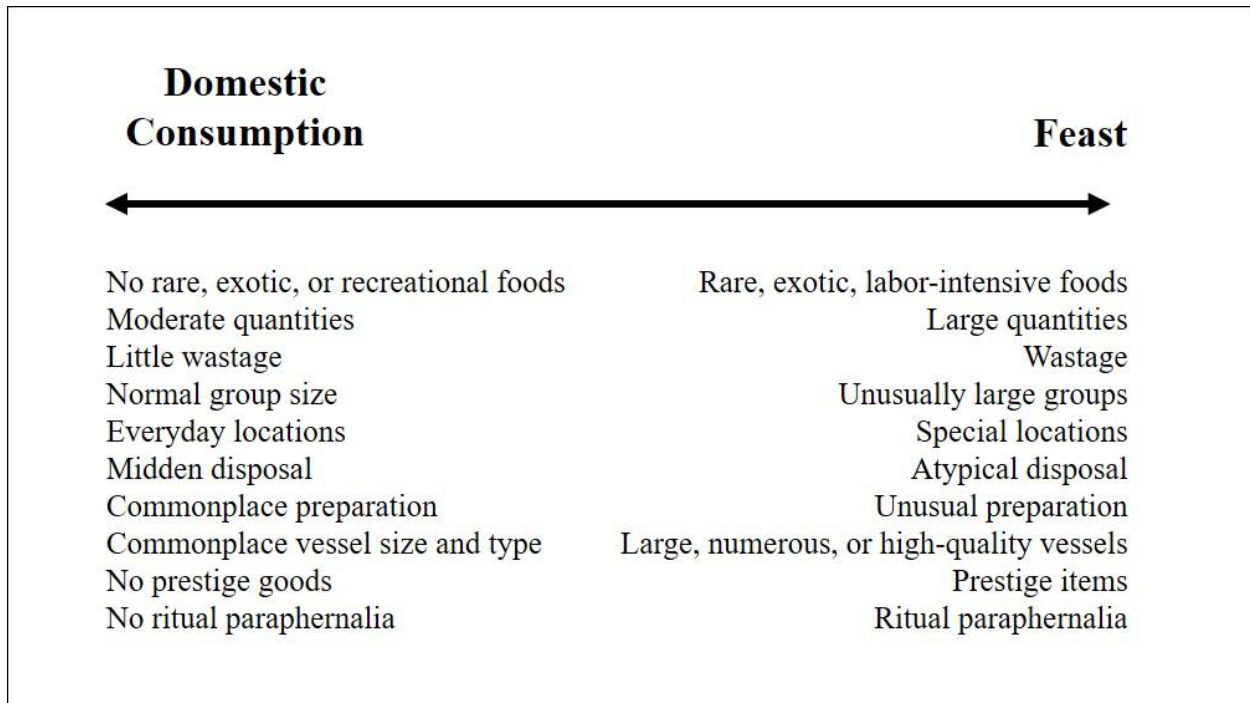


Figure 4-1 Common archaeological indicators of feasting that use domestic consumption as a baseline (after Kassabaum 2014; Twiss 2007: Table 3-1).

In the archaeology of feasting, practice-oriented approaches have recently emerged, with a central concern for the power and politics in feasting contexts and their relationship with broader social change and identity (e.g. Bray 2003; Dietler 2001; Mills 2002; Wiessner 2001). In line with the goals of contemporary social archaeology, these approaches aim to move beyond typologies that describe social and political structures and uncover the precise ways in which social and political life is lived and experienced through practice and interaction. This does not necessarily preclude the eventual recognition of cross-cultural similarities (i.e., Hayden 2001), but stresses the importance of avoiding typological reductionism and suggests instead historically and contextually situated considerations of indicators of feasting activities (Dietler 2001:66). Significant in these approaches is their advancement beyond identification of feasting

contexts, to understanding how and why they vary in form, function, and their specific historical meaning and cultural significance.

Feasting, like other forms of ritual, is effective because it merges personal experience and identity with broader structures of power through dramatic events, condensing meaning into symbols and infusing social norms with emotion (Dietler 2001:71; Turner 1972; Van Gennep 1960). In these settings, social and political performance derives power from the citation of cultural norms, which are rooted in history and the repetition of practice and use symbolic references to the past (Inomata and Coben 2006:13). These references serve to naturalize the experience of the feast and to materialize and historicize collective social memory and identity (Joyce 2008; Mills and Walker 2008). Participation in and perception of feasts and the social interactions that take place, however, vary widely by gender, ethnicity, class, and religion, among many other factors (Van Dyke and Alcock 2003:2). This variability allows for conflict over how memories are constructed, by whom, and for what purpose. The meaning of the practices and materials involved in performance, and the meaning of the performance itself, is negotiated through actions by participants, leaving room for negotiation and transformation. By looking at multiple scales within the struggle for power using an approach supported by the use of a communities of practice framework, archaeologists open up the possibility for evaluation of the pressures and desires behind the various parties striving to define what is remembered or forgotten, whether their voices were the loudest or not (Mills and Walker 2008:23).

Feasting, because it requires consumption of food and drink by individuals, is an especially participation-oriented form of performance that serves to bring people together, but also has the potential to create and emphasize differences. Because of their symbolic potency, these events often serve to both integrate communities and to reinforce or restructure inequalities

in power relations (Inomata and Coben 2006:22). Differentiating between the integrative and divisive aspects of feasting in the archaeological record is difficult using traditional frameworks. As discussed above, these rely heavily on the presence or absence of indicators to identify feasts and assess scale of events relative to domestic consumption. Often, motivations for feasts are assumed to be tied to the redistribution of food surplus and the competitive aspirations of the elite. In this view, as transegalitarian societies emerge, food surpluses create opportunities for the intensification of feasting practices, often aimed at establishing or maintaining alliances through shared consumption. The focus of feasting then often shifts to the collection of surpluses from the populace (i.e., tribute) as chiefdoms and early states develop (Hayden 2001:44-46). While ritual is acknowledged as an important part of all feasts, ritual aspects are generally viewed as thinly veiled mechanisms for naturalizing and legitimizing attempts to amass resources, status, or power (e.g., Dietler 2001).

These models tend to privilege motives and strategies that are specific to complex societies and depend on elite agents. As a result of these foci, the most under-theorized and probably under-identified type of feast archaeologically is that of the communal feast meant to build and maintain group solidarity (although see Mills 2004; Potter 2000; Potter and Ortman 2004; Spielmann 2002; Van der Veen 2003). Following current understandings of the political and social organization of prehispanic northeastern Honduran communities (Begley 1999; Cuddy 2007), this is the primary type of feasting that was likely practiced within and among local groups. With the present study, I aim to move beyond simply identifying feasting in the archaeological record of the region and examine its forms and motivations and how these vary over time and space.

A classificatory scheme developed by Kassabaum (2014) helps to achieve this goal. This model reconceptualized and reorganized traditionally defined indicators of feasting along two axes (group size and level of sociopolitical competition) that help identify the motivating factors behind feasts and improve our ability to see and explain large-scale egalitarian communal events in the archaeological record by uncoupling their competitive dimension from questions of scale (Figures 4-2 to 4-4). The rationale for keeping these indicators separate is that some large communal feasts use everyday foods and technologies but in large quantities or in different combinations (see Kassabaum 2014; Potter and Ortman 2004; Van der Veen 2003; VanDerwaker et al. 2007; Van Keuren 2004). Feasts are recognized as potent arenas for negotiation, but, if the feast is essentially a scaled-up version of everyday meals that employs everyday foods and tools, the social outcomes may not be entirely different from those negotiated in everyday life and the result may have been a reinforced sense of group cohesion and equality (Kassabaum 2014:325; i.e., “minimally distinctive feasts”, Hayden 2001:54-55). While every feast has aspects that both emphasize similarities and differentiation between the participants, some feasts likely favor one aspect over the other, and, “As the social goals of feasting change, so will the means by which one may reach these goals, leaving behind different archaeological signatures” (Kassabaum 2014:325).

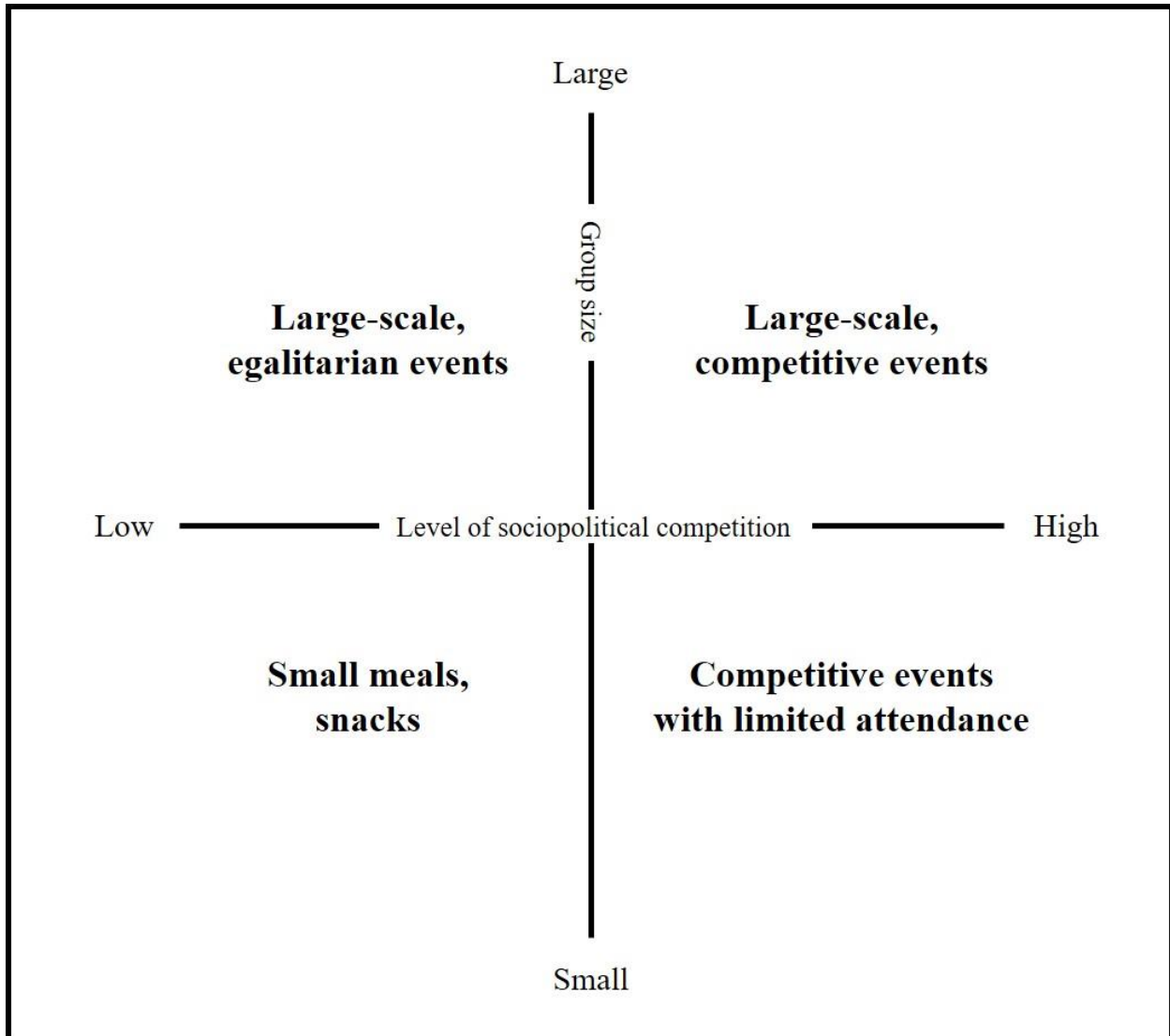


Figure 4-2 Diagram of how meals and feasts are categorized with group size and level of sociopolitical competition considered independently (following Kassabaum 2014).

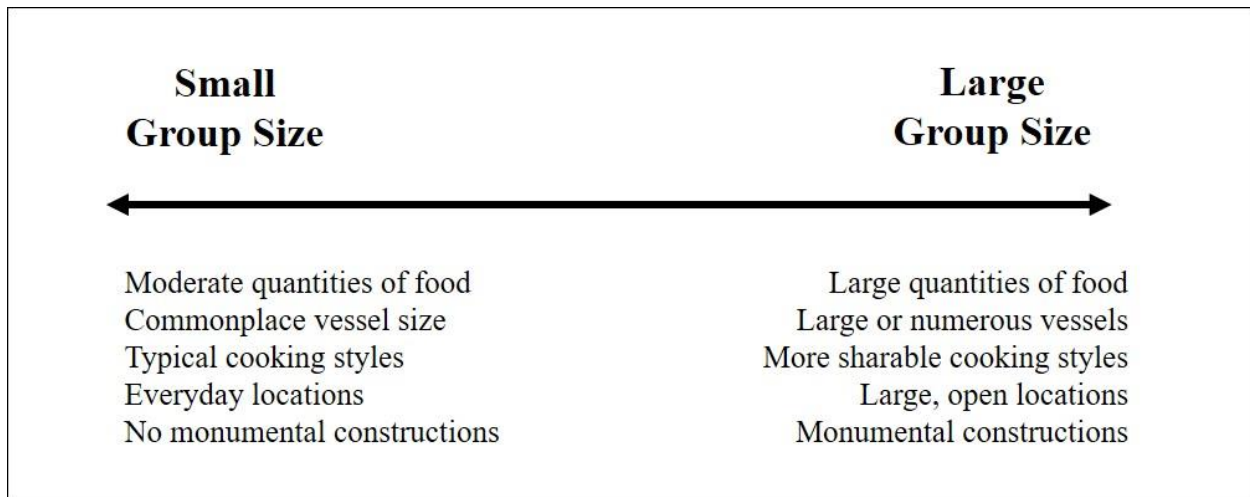


Figure 4-3 The continuum for group size with archaeological indicators (after Kassabaum 2014).

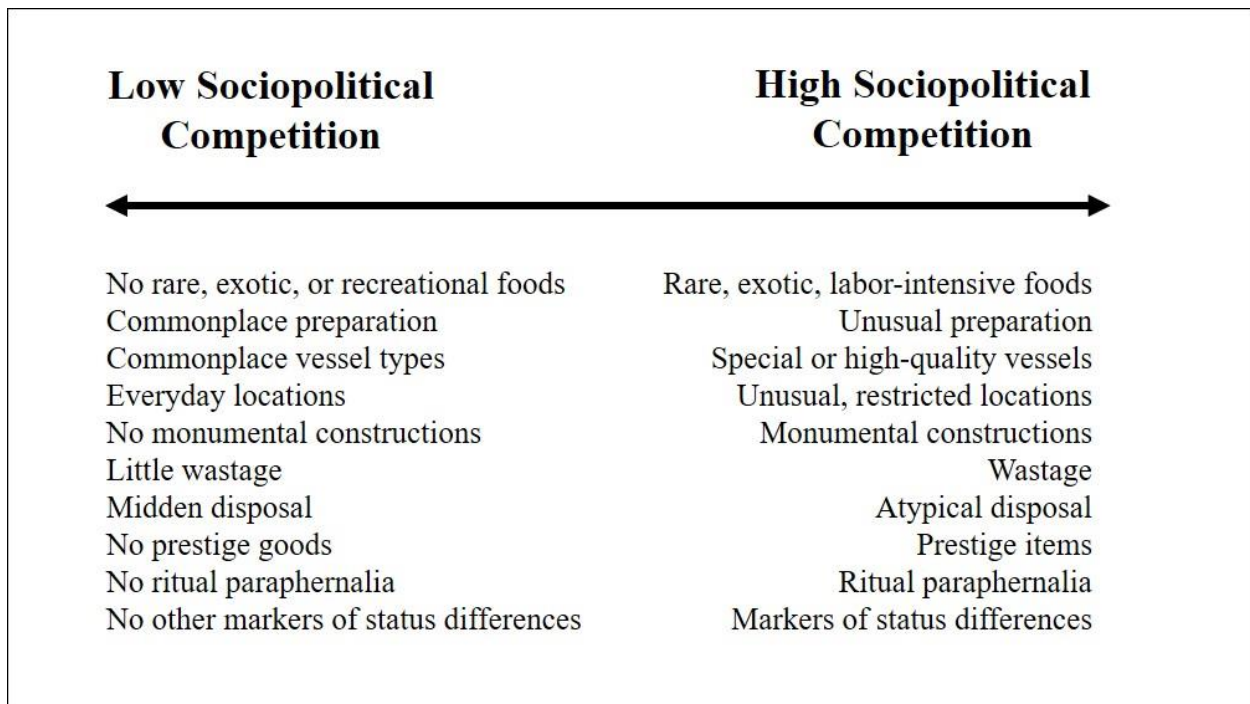


Figure 4-4 The continuum for level of sociopolitical competition with archaeological indicators (after Kassabaum 2014).

One particular way in which power is negotiated in feasts is through the use of differentiated cuisines and styles of consumption (“diacritical feasts” following Dietler 2001; or “haute cuisine” following Goody 1982; LeCount 2001). Differences in foodways within feasting

events are used to both symbolize and reinforce ranked differences in the status of social orders or classes. In these instances, symbolic focus is shifted away from particular resources or quantities of goods to the style involved in preparation or consumption. This revelation is both theoretically and methodologically significant for archaeologists, as it opens up an avenue for examining differentiation within groups that necessitates the study of foodways within feasting settings beyond measures of presence/absence and moves us towards the identification of specific foodstuffs and the consideration of recipes (e.g. Soleri et al. 2013).

The combination of the potent but fleeting symbol of foodways and the more enduring forms of pottery styles would have come together in the negotiation of meaning and identity during feasting events. By studying not only the style and form of ceramics, but also the contexts in which they were used and the types and styles of foods that were prepared, cooked, or served in them, we can improve our understandings of how people created and negotiated meaning through action and the role of varied materials in those processes. Shared understandings about how pottery and food should be brought together in feasts are representative of a community of consumption centered around foodways, which is independent of the communities of practice that make up everyday pottery production and consumption and those that form to undertake regular subsistence tasks. Nonetheless, these communities are created and recreated through the same processes of situated learning during participation in these events, only with a different set of central choices to address – who to invite, what to serve, how to serve it and to whom. The accumulation of choices about use and discard over time leave material correlates that can be used to trace the formation and maintenance of these communities of shared consumption practices (Mills 2016:262). Through this process we can begin to examine if, when, where, and how these communities of consumption articulate with each other and with other communities

and constellations of practice. By tacking back and forth between scales of analysis, from the event to broader social transformations, we can help identify and explain the timing of and mechanisms for broader social changes.

4.4 Discussion and summary

Critiques of the communities of practice concept center around its failure to provide strong explanations of relations of power or cultural transformations. The approach does, however, leave room for contention and negotiation within communities of practice, given that mutual participation within the group does not imply equality and that heterogeneity within groups means that different actors are afforded differences in knowledge, motivations, and goals (Roddick and Stahl 2016:14). As discussed above, existing bodies of theory within archaeology – particularly feasting studies – articulate well with the communities of practice framework and add to its explanatory potential. Theoretical and methodological developments from the study of consumption contexts, particularly feasting events, provide concepts and frameworks for understanding the interplay between cohesive and differentiating aspects of ritual events that serve as a stage for concentrated efforts to both include and exclude and to reinforce and recreate power relations within and among communities (Dietler and Hayden 2001). Framing participants in these events as individuals and groups connected through participation in a community of consumption allows us to reconceptualize feasts as events that occur within broader systems of social and political change. By following the materials and practices involved in these types of events over time, and by tracing the individuals and groups involved in their continued reproduction, power relations within communities of practice are brought to the foreground. Feasting at Selin Farm is evaluated in this way through an investigation of the use contexts of

symbolically charged pottery over space and time. Existing models for characterizing, categorizing, and comparing feasts (i.e., Kassabaum 2014) are used to build the hypotheses and expectations outlined below and to evaluate the data presented in the subsequent chapters.

Archaeology brings precisely the foci necessary to a communities of practice framework to enable it to better address both relations of power and cultural transformations in its ability to incorporate long-term perspectives and multi-scalar analyses. The communities of practice framework can be used as a tool to aid in making connections between the complex micro-politics of intra- and inter-community identity negotiation that occur at the level of the event and include individual actors to macro-level social transformations. This view helps us reconceptualize the relationships among actors and groups to privilege action and practice and their articulation with materials in the negotiation of identity. By connecting the development and change of feasting practices at Selin Farm to changes in the northeastern region and those taking place along the southeastern Mesoamerican border, the present study demonstrates the utility of this reconceptualization of identity and interaction.

The following sections explicitly address how this framework has been applied to understand the broader region of southeastern Mesoamerica and its pottery traditions, and how northeastern Honduras fits within this existing view, while also providing new perspectives on the role of foodways and feasting within prehispanic communities of central and eastern Honduras. Hypotheses and expectations for the present study are outlined at the conclusion of this section to help situate this research within the existing scholarship and to help orient the reader as to how the following data chapters pertain to the current research questions.

4.5 Communities and constellations of practice in Southeastern Mesoamerica

Rosemary Joyce's work in northwestern and central Honduras, particularly in the lower Ulua River valley, has been foundational in our understanding of Honduran polychrome traditions. Her recent book, *Painted Pottery of Honduras: Object Lives and Itineraries* (2017), synthesizes nearly forty years of continued research on the ceramic traditions of the region. Most notably, her detailed history of the Ulua polychromes is an unparalleled study of production and consumption of the most well-known of the Honduran polychromes that sets the stage for further exploration of the Honduran ceramic traditions in other parts of the country and in the rest of Central America.

Rather than seeking to identify static and bounded entities that coincide with particular polychrome traditions, Joyce adopts the communities of practice framework to understand how groups of people who came together to produce or consume polychromes actively created and maintained their shared identities through the repetition of practices involving these materials in the presentation of foods in everyday meals and in commensal eating. It was shared ideas about the proper ways to serve and eat food that resulted in the production of Ulua polychromes across a wide area. In this view,

“It is the repeated practice of doing something in a way that a group endorses that produces the appearance of similarity that allows us to recognize Ulua polychromes as a group. Identification among people viewed from the perspective of communities of practice is a production of making and using things in the same way, rather than a pre-existing identity being the basis for making similar things” (Joyce 2017:242).

The most important advancement encompassed in this framework is a major reconsideration of the ways in which we understand shifts in style along the southeast Mesoamerican border. Early

considerations of identity on the border relied on the culture area concept, specifically employed in this area in attempts to delineate the exact location of the Maya/non-Maya border. This often involved matching specific variations in style among polychrome traditions to particular ethnicities, attempting to push modern borders back in time and assign groups to one side of the Maya/non-Maya dichotomy (e.g., Strong 1935; Stone 1941).

A community of practice framework allows us to consider the meaning of local variations, encouraging exploration of diversity rather than pushing uniformity to fit our preconceived notions of distinct borders with homogenous internal populations. At the same time, it also gives us the concepts and vocabulary to explain widespread similarities in material culture and practice that were otherwise previously explained through simple proximity. Differences and changes in styles across time and space were not, "...due to inherent cultural identity, but came about as a result of changing patterns of communication, aesthetic preferences, and shared knowledge resulting from social relations between pottery producing communities" (Joyce 2017:225). These new understandings help further invalidate outdated but persistent interpretations that rely on intrusive populations or political domination to explain stylistic shifts in the region. They also serve to refocus the more innocuous but still simplistic explanations of cultural change in these areas that tend to privilege external stimuli over internal developments.

To frame the overall developments of Honduran polychrome traditions and how these varied communities of practice were articulated into constellations of practice, Joyce (2017) provides an overview of regional development. She first details the history of the production and consumption of Ulua Polychrome varieties and then explores the ways in which that history is articulated with other ceramic traditions in the region. It is her explanations of these articulations among communities, possibly only through a synthesis of a century's worth of investigations in

the region, that provide the specific backdrop against which cultural developments in northeast Honduras can be more fully understood in their regional and local contexts.

Joyce focuses her analysis on the painted pottery styles of the region that were made and used between AD 500 and 1000. She divides the Honduran traditions into three broad regional zones, each sharing vessel designs and forms: the western edge of the country, which includes the Maya site of Copan and is characterized by the Copador Polychrome; the central zone, from the Ulua valley to Comayagua and is defined by the production and use of the Ulua Polychrome; and the eastern zone, which is the largest and includes the northeast coast, the Mosquitia, and the eastern central portion of the country and is not currently characterized by a single polychrome tradition but rather is defined in contrast to those to the west (Joyce 2017: 238).

The eastern Honduran polychrome tradition is the least well known, due to the lack of research in the area. It is therefore likely, as Joyce notes and as my research demonstrates, that increased understandings of local variations will likely increase the need for further divisions of this area into more meaningful zones. Already three distinct traditions are known from this zone: the Sulaco Polychrome, the San Marcos Polychrome, and the Chichicaste Polychrome. Importantly, while we can point to differences in these traditions, they all shared elements of design that suggest these communities were participating in overlapping discourses that facilitated communication and interaction. Polychrome vessels served as boundary objects around which multiple communities of practice organized and reified their interconnections (Wenger 1998:105).

Painted pottery traditions in southeast Mesoamerica and central and eastern Honduras (Figure 4-5) have roots in early traditions of orange slipped vessels that featured red clay-based slip paints in geometric designs. In the Ulua valley, these traditions emphasized a tall vase or cup

shape designed to contain liquids (Joyce 2017:20). Early Ulua polychromes (ca. AD 500) did not represent changes in foodways, as their forms and assemblage compositions remained consistent with earlier traditions, but rather featured innovations in the imagery and the use of new colors. The primary contexts for the consumption of these vessels were eating and feasting contexts and their distribution was widespread throughout all segments of society. While numerous production locations existed, shared understandings of the way vessels were made and used resulted in similar products.

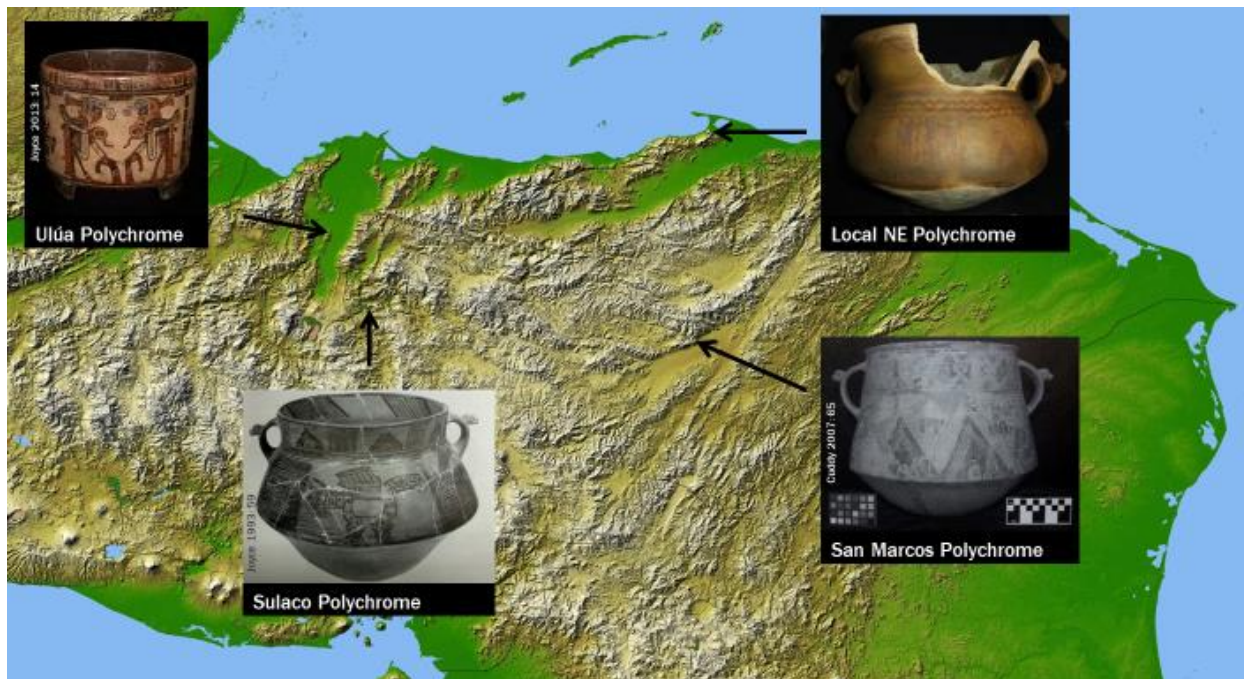


Figure 4-5 Select Honduran polychrome traditions and their locations of production.

Regionalization of designs intensified over time and changes in forms that suggest different types of food were being consumed became more frequent by AD 650 (Joyce 2017:241-242). Networks of producers with independent ties to different lowland Maya polities

were evident in regionalized variations, suggesting local individuals and groups were beginning to draw on distant connections for inspiration to innovate on familiar designs and forms with the goal of distinguishing themselves locally. By the Terminal Classic period (AD 850-950), Ulua polychromes were no longer being produced within the Ulua valley, and only at a small number of sites in the Comayagua valley.

Throughout this history of Ulua Polychrome production, the communities of practice that engaged in these shared traditions were also interacting with the other zones of polychrome production and use throughout the region:

“Each of these groups of painted pottery were produced by people forming a community of practice within what at a high level appears to be a region unified by style and practices of food serving and consumption. On that regional scale, the people participating in communities of practice at sites in [southeast Mesoamerica and Honduras] formed a constellation of practice whose participants shared enough ideas about how an end product should look that they produced a wider impression of uniformity out of what in fact are individual, varied ways of doing things, learned at the scale of the household- based craft tradition” (Joyce 2017:250).

These constellations of practice were sometimes formed based on long-standing and deeply rooted shared beliefs or traditions across populations, and other times were actively formed to strengthen and maintain social ties that served political ends. Early red-on-orange ceramic traditions likely represent an example of the former. Late developments in the Ulua Polychrome tradition within the Comayagua valley serve as an example of the latter (e.g., Joyce 2018).

In the Comayagua valley, local potters produced and exported the Tenampua variety of the Ulua Polychrome. Between AD 850-950 however, another settlement emerged on the valley floor and its potters began producing an offshoot of the Ulua Polychrome, called the Las Vegas Polychrome (Joyce 2017, 2018). The shared understanding of design field usage among Ulua

Polychrome potters was not expressed on these vessels. Instead, this white-slipped polychrome was tied into similar emerging traditions forming a constellation of practice to the south. At this same time, potters at Tenampua began emphasizing their connections to the Maya site of Copan. Throughout the central zone from Ulua to Comayagua, production of Ulua polychromes had slowed significantly, making the vessels less common. They also became restricted in use by certain segments of society and were found primarily in burial contexts.

Together, these changes suggest significant departures in the meaning and use of polychromes from earlier time periods. The communities of practice that produced and consumed Ulua polychromes were caught up in the social and political turmoil of the Terminal Classic period in Mesoamerica. Tenampua and most large sites in the Ulua valley were abandoned by the beginning of the Postclassic period. However, the site of Las Vegas continued to grow and produce polychromes up until AD 1200. It seems that the choices the inhabitants of Las Vegas made in terms of actively creating and maintaining social ties with groups to the south, which both employed and was reflected in their choice of polychrome style, contributed to their long-term stability during a period of regional destabilization that was not as well weathered by groups who sought connections to the north instead (Joyce 2018:10-12).

That is not to say that social relations within these communities in the Comayagua valley remained unchanged, however. Painted pottery became a luxury for locals, one that helped to transform the nature of inequality throughout central and eastern Honduras during the Postclassic period. This strengthens arguments that previous constellations of consumption in Honduras that centered around polychromes, and the beliefs and practices that constituted those shared traditions, were tied into the maintenance of limited inequalities that characterized these diverse groups for over 500 years (Joyce 2017, 2018). These developments help frame improved

understandings of how the communities of northeast Honduras endured the same period of regional transformation through the use of similar social strategies and why cultural transformations there followed seemingly similar but ultimately divergent trajectories than those of northwestern and central Honduran communities.

4.5.1 Northeastern Honduras as a community of consumption

The earliest expeditions to northeast Honduras resulted in an abundance of ceramic assemblages in museum collections across the United States (Mitchell-Hedges 1954; Spinden 1925; Stone 1940, 1941; Strong 1935). Early investigators saw in these collections, devoid of context or stratigraphy, homogeneity in the ceramic traditions of the region. This led to assumptions about the static and homogenous nature of the identity of its indigenous groups as well. Using contemporary linguistic studies of the Pech groups who inhabited the region when Columbus arrived, these scholars projected a Chibchan-based ethnolinguistic group into prehistory, assuming the inhabitants of the region practiced a South American way of life (Stone 1941). Other studies focused mainly on describing local populations in contrast to the Maya, again simplifying and homogenizing local variations in time and space (Strong 1935).

More recent studies of these collections by Cuddy (2007) and Beaudry-Corbett and Cuddy (2001) have drawn on the work of Wiessner (1983) and Wobst (1977) to interpret the use and meaning of prominent animal imagery on northeast ceramics as emblematic symbols. These studies refocus concerns on internal political dynamics and their role in the growth and consolidation of the region over time. The authors identify two major motifs that persist within local ceramic traditions – the manatee and the tapir. These motifs were developed in the Early Selin (AD 300-600) and persist through European contact. The prevalence of manatee and tapir

motifs is not surprising, as they are the largest mammals found in their respective habitats and, accordingly, they find that tapir motifs developed first inland, while the manatee was a coastal motif. By the Basic Selin Period (AD 600-800) the authors argue these pieces were more widely traded and represented an increased cohesion among these groups.

This work suggests that, over time, these symbols became emblematic of a larger group over a greater area, reflecting growing political organization and the negotiation and maintenance of a political identity that coincided with the emergence of chiefdoms in the area (Cuddy 2007). While an improvement on previous studies with the focus on local politics, these interpretations treat style as a reflection of major social change within the region, useful only in their role of communicating meaning but essentially passive in its creation. This view ignores the social relations through which meaning and identity are created, maintained, and transformed and essentially overlooks variation in styles that might indicate sources of social tension in favor of broad similarities that they take to mean uniformity and social cohesion within groups of the northeast. There is little room for innovation in this interpretation, other than by political leaders that guide society in a single, united direction of increasing complexity.

Recent research in the region by Begley (1999) takes a similar view and argues that the relative stability and late increase in social complexity in the region can be attributed to the maintenance of an inclusive political identity. Following Blanton et al. (1996), Begley argues that the formation and maintenance of this identity was motivated by a corporate strategy, wherein leaders use symbolic power as means of promoting cohesion, rather than exclusion. In this knowledge-based system, where wealth is not the source of elite power, religious and ritual symbols are co-opted to create power while maintaining a veneer of resource-based equality

within the group. This view grapples with ideas of morality and consumption, recognizing that mechanisms exist to limit unequal distribution of resources within most egalitarian communities.

However, this approach relies heavily on access to exotic goods as the most significant source of power and therefore ultimately privileges external stimuli over internal ones to explain change. While interaction with neighboring groups can be strategic, this view leaves no other possibility beyond political strategy as a motivation for interaction. Society is dichotomized into elite/non-elite segments that are assumed to share understandings of their group identity, with no room for resistance or innovation by non-elite members of the group. Relatedly, it also falls short of explaining how symbols are used in practice to create and maintain their meaning and validity as a source of power, overlooking the importance of social action and interaction as an arena for the contestation of power.

In contrast with previous studies in the region, the present study adopts the view that both local developments and their articulation with regional transformations can be better understood through an investigation of style that implements a communities of practice framework. Through a study of the practices in which symbolic materials were employed, we can begin to understand the social interactions through which groups actively created, maintained, and transformed their identities and how these simultaneously contributed to and responded to larger social transformations taking place locally and more broadly along the southeast Mesoamerican border during the Classic to Postclassic period transition. Eastern Honduras has already been identified as a polychrome production zone (see above, Joyce 2017). Differences between eastern Honduran polychromes and Ulua polychromes have also been noted. These include an emphasis in eastern traditions on large jars and footed dishes, suggesting distinct foodways that may have included brewed beverages and their consumption in commensal settings by large groups rather

than individuals. These differences, and their potential significance, are investigated here through a contextual study of northeastern Honduran polychromes.

My research adds to our understanding of these differences and their meaning by examining the contexts in which northeastern Honduran pottery was employed in practice during the period from AD 300 to 1000. By employing a communities of practice framework, focused specifically on communities of consumption surrounding painted and other symbolically significant pottery, I am refocusing the analysis on human interaction and action, moving the locus for innovation from political leaders to the interaction between the potter, the product, and consumers. This allows for the incorporation of testing, learning, and responding through social action and reaction in the creation and maintenance of symbols and also provides both a mechanism and an arena for social change. It also adds to our understanding of interaction with outside groups in that it considers the presence of imported materials, particularly other Honduran polychromes, not just as evidence for exchange with those areas, but as an avenue for exploring the social interactions that accompanied those exchanges and how these boundary objects served to facilitate the sharing of more than goods but also ideas, beliefs, and practices across porous borders.

A communities of consumption approach is particularly well-suited to the present study given that Honduran painted pottery is typically found in feasting contexts, where these exchanges would have been especially symbolic and structured by ceremony and ritual that condense meaning into more readily identifiable bundles of material and practice. By considering the individuals and groups that participated in these events, we also are guided to employ a more realistic scale for understanding how identity operates and is negotiated in our analyses and interpretations. Identity, rather than being a monolithic whole that encompassed

groups at a regional scale, operated at the level of towns or families who hosted and attended public events and interacted with each other regularly in order to maintain that identity through practice. The only way to understand the meaning of changes in style within northeastern Honduran pottery traditions is to trace how, where, when, and by whom they were used and examine the histories of these communities of consumption in conjunction with other lines of evidence for social change in the region.

The example of shifting constellations of practice in the Comayagua valley, outlined above, provides a useful framework for hypothesizing how and why northeast communities may have aligned themselves with groups to the south. Social and political networks to the north were undergoing dramatic changes and these groups on the furthest edges of southeast Mesoamerica had access to constellations of practice that would connect them to the increasingly powerful networks to the south. This shift towards the south, whether socially or politically motivated, involved a change in the ways pottery was used in central Honduras, but the ways in which it changed communities of practice, particularly communities of consumption, in eastern Honduras have not been studied. Can we see evidence of similar shifts in the ways northeastern Honduran polychromes were used that align with the documented shifts in style during the Terminal Classic (AD 800-1000)? If so, are the changes in the contexts of use similar to those of the Las Vegas polychromes in their restriction to certain segments of society or specific contexts? Addressing these questions through an examination of the use contexts and foodways associated with symbolically significant pottery allows for the consideration of the meaning and role of style in the practice and negotiation of identity during this time of social and political change in northeastern communities and on the southeastern Mesoamerican border that investigates, for the first time, internal heterogeneity and privileges internal forces in local changes.

4.5.2 Hypotheses and expectations

Given what is currently known about the social organization, political strategies, and cultural affiliations and developments of groups in northeastern Honduras between AD 300-1000, the following hypotheses were developed for the present research:

- 1) Communities of consumption in the northeast used symbolically significant pottery in large, communal feasts.

Honduran painted pottery styles in northwestern Honduras were used in feasts by all segments of the population (Joyce 2017). In the northeast, use context of these and other pottery styles has not been investigated. If these areas shared common beliefs about how decorated pottery should be used, I expect to find symbolically significant pottery – that is pottery with symbols and motifs that express affiliation or emblematic style (i.e., painted pottery, incised and punctate designs, and manatee motifs) – in feasting settings as well. This would reflect participation in similar communities of consumption, articulated into large constellations of practice through the use of painted pottery as boundary objects (Joyce 2017; Wenger 1998).

Additionally, and in contrast to the more complex societies to the north, research in northeastern Honduras suggests that a corporate political strategy was used by local actors to promote a cohesive group identity and maintain a relatively egalitarian social organization (Begley 1999; Cuddy 2007). If this is true, all segments of the population would have participated in large, communal feasts where the meaning of symbols and style, both pottery and foodways, were negotiated. I expect to find that symbolically significant materials and practices were central in these feasts and that these and other resources were not restricted to certain

groups or individuals. Social and political differentiation likely existed, but exclusive or individualized authority and distinctions between segments of the population would have been deemphasized in favor of group identity (Barber and Joyce 2007; Blanton 1998; Wells 2007).

Because food is often a more sensitive indicator of social difference, employing a foodways approach is likely to provide a more nuanced perspective on internal heterogeneity than pottery style alone. While group cohesion was a central concern for the hosts of large, communal feasts, there may also be evidence for the diacritical nature of feasts (Dietler 2001), where differentiation also occurred. Furthermore, by looking at group size and sociopolitical competition independently (Kassabaum 2014), I will explore these aspects of feasting across space and time at Selin Farm to see how feasts varied in form and content. Changes in the type of feasting would signal shifting motivations and outcomes that would provide internally driven explanations for social and political change in the region, tying the micro-scale events to larger cultural developments.

2) Mesoamerican influences on foodways were early and limited to contexts where imported or imitation pottery was used.

If this hypothesis is supported, I expect evidence of maize use to be limited to early contexts, and to be highest in direct association with painted pottery styles. Later in time I expect imported or emulated painted pottery styles to follow this pattern of association. Ceramics (particularly painted pottery) may reflect these ties more than other processing and serving tools, while long-lived local styles of pottery and utilitarian wares, along with lithic processing tools, will likely represent underlying everyday foodways (i.e., lagoon ecosystem centered) more

accurately. If pottery styles and foodways suggest similar affiliations and those patterns are consistent across contexts, this would suggest that these affiliations were shared within the community and not restricted to certain segments of society or to certain settings. This would be in line with expectations outlined above based on the current understanding of social and political organization of the region. If these two modes of identity expression are not in agreement, the timing and nature of the discord may provide insight into how social differentiation developed in this region.

3) Lower Central American influences on foodways were late, widespread, and tied to a community-wide reliance on manioc.

While early pottery styles across this region appear to have been heavily influenced by Mesoamerican examples, it is expected that common motifs, forms, and sizes of pottery at the site shifted between AD 800-1000 to reflect lower Central American styles (Healy 1984a, 1984b, 1993). Differences in typical forms and sizes between western and eastern pottery traditions point to an association between this shift and different practices of food preparation and consumption (Joyce 2017), but these patterns have not been evaluated. If local feasting was tied to the promotion of an inclusive group identity, I expect that changes in styles and foodways were both employed in and reflective of social movements that were present in but not restricted to these ritual settings alone. If true, reliance on manioc as a major agricultural crop should be apparent in both ritual feasting deposits as well as in domestic settings. Evidence of manioc in association with large jars will suggest *chicha* production and reflect notable southern influences on local ritual foodways. Increasing emphasis on ritual beverages served in large jars would also

suggest the increasing importance of communal feasting at this site. Microlithic flakes, likely associated with manioc processing, should also increase in frequency and abundance over time.

Alternatively, if local subsistence patterns suggest increasing reliance on maize agriculture over time, this could indicate expansionist chiefdoms from the south were moving into the region, with increased competition over access to land driving cultural developments. This pattern is hypothesized as an explanation for the timing and nature of political developments throughout lower Central America (Hoopes 1996). This seems unlikely to explain developments at Selin Farm, however, given that local groups, because of their unique ecological setting, had unfettered access to a variety of wild and domesticated resources. If local foodways primarily reflect *in situ* cultural development, this would suggest that intensive use and management of local marine resources (primarily oyster and conch), allowed them to subsist at relatively high population densities without the need for agricultural production. Shifting foodways, in this case, would reflect primarily social and political, rather than economic strategies.

In this scenario, evidence for domesticated crop use (either maize or manioc) would likely remain rare at the site until late in the site's occupation (AD 800), when regional population is shown to have increased dramatically. Primary resources used during earlier periods will be wild plants and animals available in local environmental settings. Tools for agricultural crop processing may be present, but not common, and will be generalized forms for multi-purpose use. Continuity in foodways practice would suggest that an abundance of resources that required limited centralized management may have served as a unifying force within the community. It would also suggest active resistance to trends towards intensive agriculture as seen in neighboring communities.

4.5.3 Summary

Using the above hypotheses to guide data collection and analysis, my research brings together multiple lines of evidence to understand changes and continuities in the feasting activities at the Selin Farm site. Table 4-1 outlines the indicators used to first identify feasts (“Feasting indicators” column, following Hayden 2001; Twiss 2007, 2012) and how these indicators informed on specific aspects of feasting (i.e., group size and level of sociopolitical competition, following Kassabaum 2014). Expectations for each indicator were developed according to the hypotheses discussed in the previous section and are specific to expectations for large, communal feasts aimed at creating and promoting group identity and cohesion (Begley 1999; Cuddy 2007).

For this study, ‘large’ and ‘unusual’ are defined either by using measures from ethnographic or ethnoarchaeological examples (see previous chapter), or across feasting contexts internally at the site – that is each event relative to one another. Further details about each analysis and how specific indicators and attributes were measured can be found within the respective data chapters that follow. To facilitate comparison across excavated contexts, each excavated context was classified according to Kassabaum’s (2014) model of feasting. The results of this classification and a more detailed discussion of the relationships between attributes and analyses and each indicator are presented in Chapter 11.

Feasting Indicators		Informants on	Expectations	Analyses and attributes
Food disposal features	Feasting middens	Group size	Large, rapidly accumulated primary refuse deposits with little post-depositional disturbance	Mound size, deposit size (refits across levels, radiocarbon dates), mound composition (sediment volume, artifact quantity and density), average sherd size
	Food	Group size	Large quantities of food in communal settings	Weight and volume of shell
Preparation vessels	Unusual types of food	Competition	No unusual food types or restricted access to foods or resources	Mollusk species and size, lithic type and size/form (FCR, groundstone, grater flakes), ceramic residues (stable isotope signatures), ceramic use-alteration (pitting)
	Unusual types (or forms)	Competition	No unusual types or restricted access to types	Type-varieties, functional analyses (form, use-alteration)
	Large sizes	Group size	Large sizes of vessels in communal settings	Morphological analysis (size/rim diameter)
Serving vessels	Large numbers	Group size/ Competition	Large numbers of vessels in communal settings	Ceramic quantity (count, weight, minimum number of vessels, rim-estimated vessel equivalent)
	Unusual quality/types (or forms)	Competition	No unusual quality/types or restricted access to types	Type-varieties, functional analyses (form, use-alteration)
	Unusual sizes	Group size	Large sizes of vessels in communal settings	Morphological analysis (size/rim diameter)
Prestige items	Unusual numbers	Group size/ Competition	Large numbers of vessels in communal settings	Ceramic quantity (count, weight, ratio of cooking/serving wares)
	Presence/ Absence	Competition	Limited and restricted to communal settings	Modified bone and shell, imported materials (ceramic and lithic)
	Types		No restricted access to types or materials	Material, form, quantity
Ritual paraphernalia	Presence/ Absence	Competition	Limited and restricted to communal settings	Ritual items (e.g., censers, masks, whistles, etc.)
	Types		No restricted access to types or materials	Material, form, quantity
Special locations	Central spaces	Group size/ Competition	No restricted access, no association with residential architecture	Reuse of space, mound clusters
	Monumental architecture	Group size	No restricted access, no association with residential architecture	Mound size, mound composition (sediment volume)
Feasting facilities	Special structures	Competition	No restricted access, no association with residential architecture	Mound superstructure (presence and quantity of bajareque, post holes)

Table 4-1 Feasting indicators and associated expectations and analyses for the present study.

Although not included in the table, most shell midden mounds at Selin Farm contained a rare but convincing indicator of feasting specific to coastal habitats referred to as “clean shell” or, “shell piles lacking little else by volume other than largely undamaged shell” (Russo 2014:28; see Table 4-1). Clean shell is a concept that is widely used in the archaeology of the southeastern United States to describe deposits within the ringed shell mounds of the Late Archaic (3000-1000 BC) and Woodland (500 BC-AD 1000) periods (Bullen and Bullen 1956; Edwards 1965; Russo 2004:43, 2014:28; Walker 1992:281; see also Classen 2010). Clean shell has alternatively been referred to as unconsolidated, whole, unbroken, or loose and its principal feature is that these deposits represent rapid depositional events with little to no disturbance after their initial deposition (e.g., no trampling). Most often the shell is of a white or light color, as compared to darkly stained shell that results from burial within organic soil matrices. Descriptions of shell as loose or unconsolidated refer to the absence of soil within the matrix to bind the specimens together as well as voids between the shells (Russo 2014:28). There is often little species diversity within clean shell assemblages and in the southeastern U.S. oyster (*Crassostrea* sp.) dominates in most mounds (Russo 2004:43), as it does in northeast Honduras. This is likely a result of the ease of harvest of this species relative to others and/or due to seasonal resource exploitation. Radiocarbon dates from the top and bottom of these large deposits in the southeast generally demonstrate overlap (Saunders 2004, 2017), as did the dates from Selin Farm middens, which lends weight to the interpretation that they were short-lived features, possibly active for only a few decades or generations (Russo 2010:157).

Clean shell deposits are contrasted with common characteristics of everyday middens in several ways. As Russo (2004:43) summarizes:

“If the shell is deposited quickly, as opposed to the gradual accumulation of daily meals discarded underfoot, relatively less evidence should be found of crushing, windborne sand, surface fires, artifacts, fauna drawn to exposed shell (e.g., land snails), and other subaerial indicators of human and natural activity”.

In the southeastern United States, there is consensus that the ringed shell mounds formed by these deposits represent ritual activities. They were carefully and deliberately constructed and indicate ritual discard of refuse created through commensal eating during episodes of population aggregation. The placement of mounds adjacent to central public plazas that are kept clean is also a clear factor for determining shell midden mound function (Russo 2014:29). These characteristics are also in line with those of the shell midden deposits at Selin Farm. Concerns that these deposits represent differential biodegradation resulting in preservation bias towards durable shell refuse (e.g., Marquardt 2010) are assuaged by the presence of other well-preserved artifacts and indicators of ritual importance (e.g., burials, see Sanger 2015), or, in our case, ritual paraphernalia.

One of the most significant aspects of the “clean shell” concept is that it provides an example of feasting indicators that are not specific to complex societies and thus are not reliant on the typical explanations of feasting motivations that tend to privilege the redistribution of food surplus and the competitive aspirations of the elite (e.g., Dietler 2001). This helps in the identification of large, communal feasts in egalitarian societies.

Parallel to the feasting indicators table, Table 4-2 summarizes the specific analyses and attributes that were used to assess the timing and nature of external influences on the assemblages from Selin Farm. The behavioral chains for dishes and meals presented in Chapter 3 were instrumental in developing these expectations. As with the behavioral chains, however, the associations outlined in this table are meant to guide data collection and evaluation, not to act as

a strict model for understanding interaction and affiliation in the past. Similarities in material culture occur for varied reasons (e.g., economic exchange, acculturation, emulation) and have varied meanings and significance for different individuals and groups. Furthermore, similarities as perceived in the archaeological record are not the result of abstract and amorphous ‘influences’ but rather are the result of the movement of and interaction among people in the past. The way we interpret the results of these analyses should reflect this understanding. A communities of consumption approach helps to guide our expectations by looking for how these materials and practices were brought together by active agents and in varied settings and combinations towards strategic and sometimes conflicting goals, rather than simply recording their presence and absence as indicative of external influences.

Table 4-2 Indicators of affiliation with groups to the north and south for the present study.

	Mesoamerica	Lower Central America	Analyses
Timing	Early and Basic Selin (AD 300-600)	Transitional Selin (AD 800-1000)	Type-varieties, radiocarbon dates
Pottery designs	Painted pottery	Incised/punctated pottery	Type-varieties, modal analyses of design execution
Pottery forms	Vases	Large jars, dishes	Morphological analyses (form and size)
Resources	Maize	Manioc	Residues, lithic materials and forms (groundstone or grater flakes)
Food styles	Tamales/Tortillas (nixtamalized corn)	<i>Chicha</i> (maize or manioc)	Morphological analyses (form), functional analyses (use-alteration)
Imports	Obsidian (prismatic blades)	Greenstone (‘axe god’ form)	Lithic materials and forms

CHAPTER 5 :
THE SELIN FARM SITE

The goal of investigations at the Selin Farm site was to obtain contextual information about the use of pottery and food styles in this northeastern Honduran community during the Selin period (AD 300-1000). Excavations at the site document the timing, distribution, and association among food resources, pottery and other technologies, and practices throughout this time period. These data are then used to make broader arguments about processes of identity negotiation within northeast Honduras and how these vary over time and space. The timing and nature of shifts in feasting forms and content are used to make broader arguments about processes of identity negotiation within northeastern Honduras.

This chapter begins with a brief introduction to the Selin Farm site and its history of excavation. For the present study, research at the site focused on targeting shell middens to obtain comparable data across space and time because these contexts provided exceptionally well-preserved deposits related to repeated ritual feasting. Domestic contexts were sampled during pilot study investigations but remained difficult to identify, did not provide clearly stratified deposits like those of the shell middens, and exhibited poor preservation. Despite these drawbacks, data from both contexts are reported here and in the following chapters. Future studies should aim to sample domestic contexts more thoroughly. Detailed descriptions of all excavations from both the 2013 and 2016 seasons can be found in Appendix B.

5.1 Sites of the Selin period

Settlements dating to the Selin period (AD 300-1000) in northeast Honduras were scattered throughout valleys and coastal plains (Healy 1975; Sharer et al. 2009). These consisted of small, loosely organized mound groups inhabited by part-time horticulturalists who also exploited rich coastal and tropical forest resources (Healy 1983). Of these settlements, the Selin Farm site stood out as an exceptional location for excavations based on the presence of several mounds with stratified deposits, evidence of long-term occupation spanning the entire Selin period (AD 300-1000), and remarkable preservation (Epstein 1957; Healy 1978a).

The Selin Farm site is located at the edge of the Guaimoreto lagoon, near where the Silin River feeds into the southwestern edge of the lagoon. The site is composed of about twenty-seven mounds and several surface scatters spread out over an area of roughly .3 km² (Figure 5-1). The site core consists of fifteen mounds loosely organized around two open plaza areas. Several low mounds (<1 m) were perceptible when the southern plaza area was plowed, suggesting that the plaza arrangement is likely not as clear-cut as early maps suggest (e.g., Healy 1978a). During our two field seasons (2013 and 2016), the site was found well-preserved, although it has been periodically plowed for agricultural purposes.

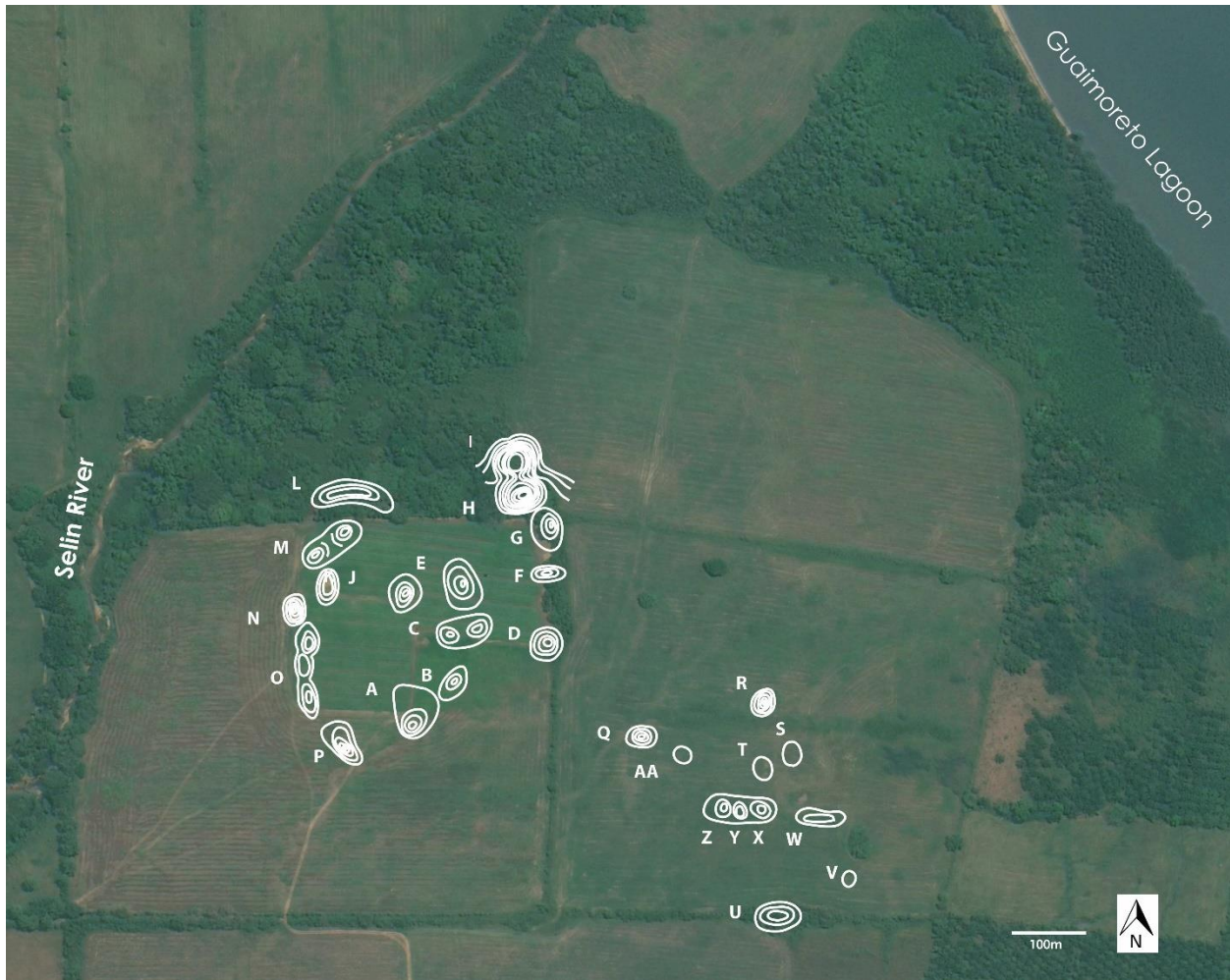


Figure 5-1 Map of the Selin Farm site (based on Healy 1978a: Figure 3).

5.2 Previous excavations at Selin Farm

The Selin Farm site is the most studied site in the northeast of Honduras. It was first recorded by Spinden (1925) and later briefly excavated by Junius Bird of the Boekelman Shell Heap Expedition in 1931 (Strong 1933, 1935). Epstein (1957) relied heavily on Bird's assemblage from Selin Farm to develop the first chronological sequence for the region. In the 1970s, excavation and radiocarbon dating by Paul Healy (1978a) revealed that the site was continuously occupied from at least AD 300-1000. Healy's work also allowed for the further

refinement of the chronological sequence of the region (Healy 1993) as well as the first study of the paleoecology of the area, based on the large number of well-preserved zooarchaeological remains (Healy 1983). Finally, existing collections from the site were also used by Cuddy (2007) in his study of political identity in the northeast.

Most of Bird's notes detailing his excavations at the site were lost (Epstein 1957:40). The available notes and maps provide an unclear picture of his work there (see Cuddy 2007: 146). Additionally, subsequent mapping of the site (i.e., by Healy 1978a) used a different labeling system. An attempt to reconcile these different approaches is presented in Table 5-1. Some interpretations of mound occupation, composition, and function pull from surface surveys undertaken as part of the present study, as presented in the following section.

Table 5-1 Mounds at the Selin Farm site with assigned chronology and function, as well as previous mound designations.

Current designation	Occupation	Mound composition/Function	Healy	Bird	Cuddy
A●	Early	Shell/Midden	A	10?	10
B	Basic	Clay/Domestic	B	10a?	10a
C	Basic	Clay/Domestic	C	10b?	10b
D	Early-Basic	Shell/Midden	D	3?	3
E●	Early	Clay/Domestic*	E	10c?	10c
F	Basic- Transitional	Clay topped with shell/Unknown	F	3a?	6
G	Transitional-Cocal (?)	Clay topped with shell/Unknown	G	3b? 6?	7
H●	Early	Mixed/Unknown	H	7	8
I●+	Early-Transitional	Mixed/Unknown	I	8	8
J	Early-Basic	Clay/Domestic	J	17?	17
K●	Early-Basic	Clay/Domestic	K	14?	14
L	Basic	Clay/Domestic	L	9	9?
M	Transitional	Clay/Domestic	M	13?	13?
N	Early	Clay/Domestic	N	15?	15
O+	Basic-Transitional	Clay/Domestic	O	16	16
P+	Early	Shell/Midden	P	12?	12
Q	Basic	Shell/Midden	Q	2	2
R	Early	Shell/Midden	R	4	4
S	Basic	Clay/Domestic	S	5?	5
T		Clay/Domestic	T	5a?	5a
U+	Basic	Shell/Midden		1	
V	Basic	Clay/Domestic			
W	Basic	Clay/Domestic			
X		Clay/Domestic			
Y	Basic	Clay/Domestic			
Z	Basic	Clay/Domestic			
AA	Basic	Clay/Domestic			

+ = excavated during current project

● = excavated previously

* = contained a human burial

5.3 Pilot study excavations

A pilot study for the present project was conducted in 2013 to evaluate the feasibility of long-term research in the area (Goodwin 2014). The purpose of test excavations in 2013 was to establish the presence and degree of preservation of the primary material sought for this study – pottery. In order to evaluate how identity was negotiated, pottery was used as a central focus of research to study both design and foodways. Pottery was used to test the association of previously documented changes in style with other changes in pottery (form and size) and resource use (from residues analyses) and practice (from contextual information). Two distinct types of contexts were targeted – architectural mounds (composed primarily of clay) believed to be representative of domestic settings based on the presence of floor and hearth features exposed in previous excavations at the site (Healy 1978a) as well as an abundance of groundstone material suggesting food preparation activities – and midden mounds composed primarily of ceramic and shell refuse.

During this season, a survey and surface collection of materials was first carried out to determine mound composition and chronology and to identify differences in artifact classes and densities across the site. Ceramic and lithic materials were collected. Finds were grouped by mound and analyzed using existing type-varieties from the site and region (Epstein 1957; Healy 1993). Lithics were classified by material and form. These data were combined with information from previous research at the site to determine occupational spans and the likely function of each mound (Table 5-1). Together, this information was used to identify the select locations for test excavations.

In 2013, excavations were limited to two test units (Figure 5-2). Both units were small (.5x1 m) but had high artifact densities, with nearly 4,000 sherds recovered overall. The first test unit (Operation 01, Unit A), located on a plaza-adjacent mound (Mound O) that likely supported a residential structure, revealed a construction similar to that of other mounds bordering the plaza composed largely of compacted clay with few artifacts (see Healy 1978a). A possibly significant event was marked by the presence of a 30-40 cm thick layer of burnt earth, shell, bone, and ceramic at the base of the mound, 2 m below the surface. Groundstone and plain, coarse-ware ceramics were found throughout all levels of the excavation. Fill was primarily earthen, and soil was very clay rich. Preservation of materials was overall very poor.

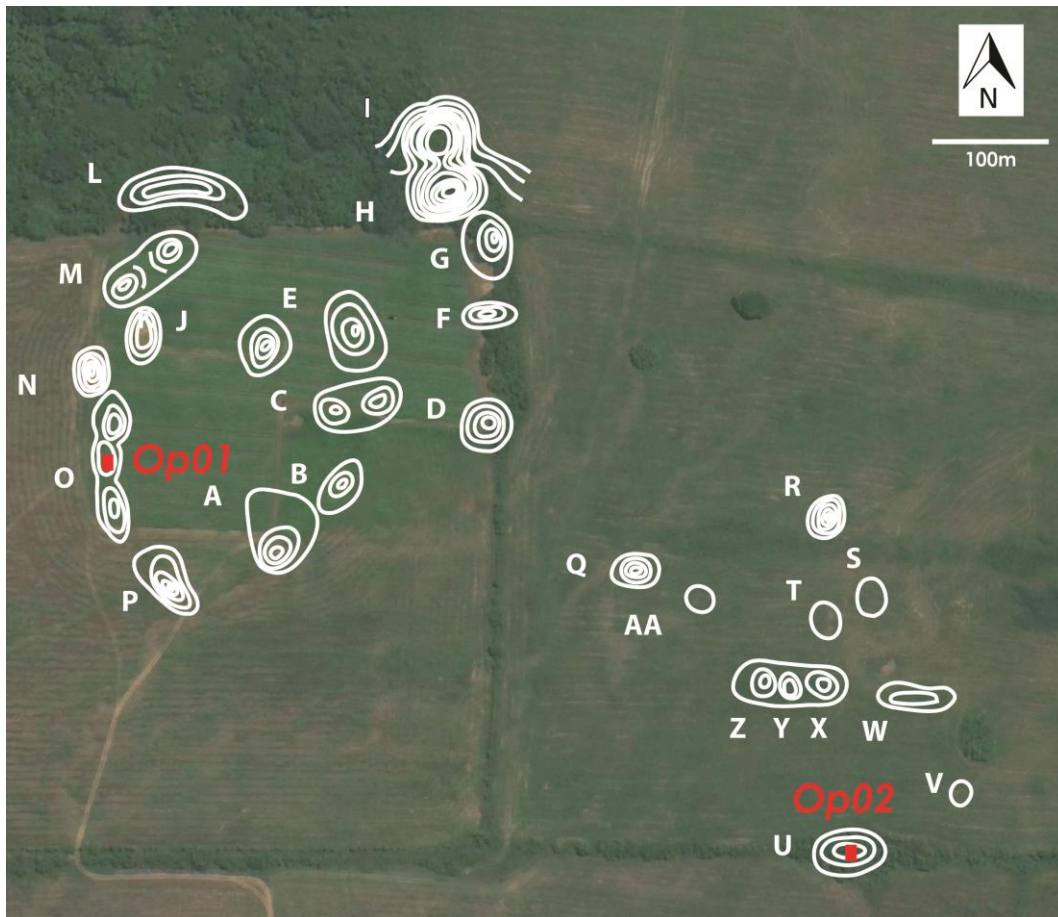


Figure 5-2 Map of Selin Farm showing excavations undertaken in 2013.

The second test unit (Operation 02, Unit A) was placed in a mound 300 m east of the central mound group. This mound was not included on the map drawn by Healy (1978a) but may have been excavated by the Boekelman Shell Heap Expedition in 1931 (Epstein 1957:291, Figure 6B), where it was labeled Mound 01. Bird ([1931] in Cuddy 2007) noted that a road passed over the southern portion of the mound. The road stops short of this area today, but apparent damage is still visible. We found the mound otherwise intact. As an aside, Cuddy (2007:149) suggests Mound 01 at Selin Farm and Mound 01 at Cocal Farm are the same mound and that the two sites are actually one. However, our excavations (2013 and 2016) did not encounter any Cocal Period ceramics, suggesting that the two sites are in fact distinct.

We followed Healy's (1978a) labeling system and designated this mound as Mound U. Our test pit expanded an existing looter's pit or animal's burrow into the mound (Figure 5-3). Excavations revealed that the mound was primarily composed of shell, interspersed with thick (5-10 cm) reoccurring deposits of ceramic materials to a depth of 1.8 m (Figures 5-4 and 5-5). Ceramics were well-preserved, with several nearly complete vessels and one whole vessel recovered in the small (.5x1 m) unit. Faunal materials were also relatively well preserved, although not abundant. There was little to no sediment accumulation in these deposits. At the base of the mound, a similar deposit to that found in Mound O was noted – with burnt earth, shell, and ceramic, but comprised of considerably more materials.



Figure 5-3 Looter's pit or animal burrow found on the summit of Mound U.



Figure 5-4 Photograph of north wall of Operation 02 in Mound U showing thick deposits of shell and ceramics.

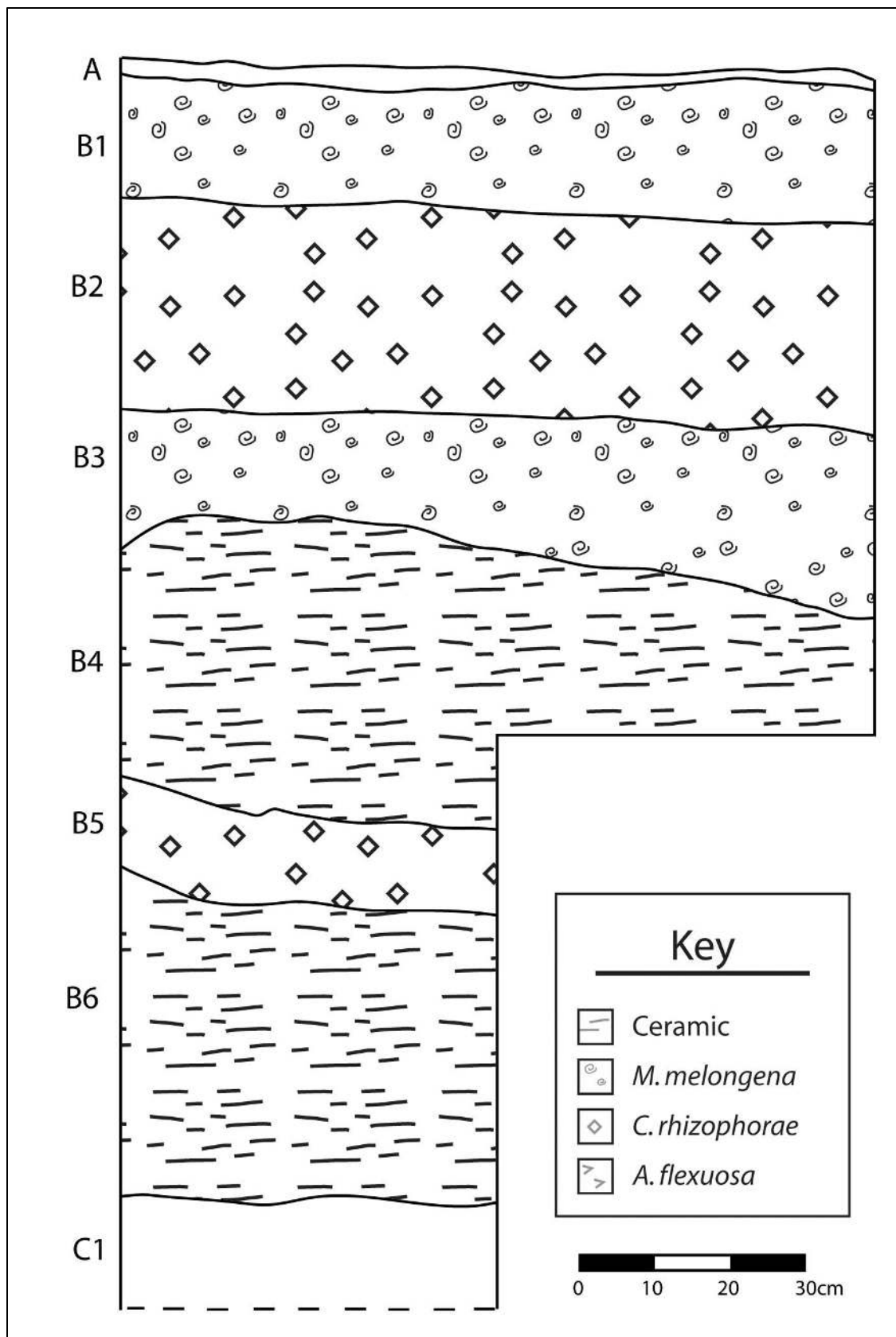


Figure 5-5 Profile drawing of the east wall of Operation 02 in Mound U.

The 2013 pilot study revealed tentative patterns between depositional contexts and ceramic styles that had implications for the 2016 field season. The architectural clay mound, Mound O, was found to have ceramics that were primarily coarse ware. Diagnostic materials were scarce but suggested that this mound was built late in the occupational sequence of the site, likely occupied briefly during the Basic (AD 600-800) and to a greater extent during the Transitional Selin periods (AD 800-1000). Mound fill was made up of a mix of ceramics that spanned these two time periods, suggesting the mound was likely built late and that these deposits represent secondary depositional contexts (Schiffer 1987:18).

Midden mounds or permanent deposits of refuse (see Needham and Spence 1997) like Mound U, in contrast, were composed of well-preserved, stratified deposits that alternated between abundant ceramic materials (both fine and coarse ware) and shell refuse, with very little sediment accumulation. Whole and nearly whole vessels of both fine serving and coarse cooking ware were also present, unlike the fragmentary materials in Mound O. Diagnostic ceramic materials were abundant and well-preserved. These patterns, along with the abundance of shell and ceramic materials, suggested that the shell midden mounds were likely representative of feasting and that these materials were in their primary depositional context (Beck 2006; Schiffer 1987:18). Additionally, there was no clear relationship between domestic clay architecture and specific midden deposits, suggesting these feasting middens were likely communal in nature.

The overall goal of the pilot study season was to locate and evaluate the state of preservation of the site. Test excavations allowed me to explore preliminarily the distribution of materials sought for this study as well as to assess the preservation of these materials in varied contexts. To look at practices related to group identity, larger scale excavations were carried in

the shell middens identified as communal feasting deposits during the 2016 field season, as described in the following chapter.

5.4 Excavation methods

All excavations followed the operation-suboperation-lot nomenclature (Coe and Haviland 1982:42). Excavations of each mound were first designated operations and assigned a sequential number, with operations excavated in different years assigned a different number. Each 1x1 m excavation unit within an operation was designated as a suboperation and assigned a letter. Each arbitrary level excavated was designated as a lot within that suboperation and assigned a sequential number, beginning with 1. Arbitrary levels were used because of the complexities of the deposits both stratigraphically and horizontally. Excavations proceeded in 10 cm lots within each 1x1 m unit until sterile soil was reached.

Excavated stratigraphic units were described by applying Stein's (1992:74, Table 1) classification system, which employs stratigraphic terminologies from the geosciences adapted specifically for archaeological shell middens:

- Phase: Strata formed during the same span of time whose chronological placement is based on artifacts found within it (i.e., Stein's 'ethnochronozone'; Stein 1992:78).
- Deposit: strata defined by a homogeneity of physical and artifactual characteristics including composition and relative abundances of one or more types of archaeological materials, soil characteristics (e.g., color), and orientation.
- Level: arbitrary 1 m x 1 m x 10 cm excavated stratum.
- Layers: the smallest stratigraphic unit defined during excavation composed of few, usually one, type of material (i.e., shell).

Measurements were taken from a single datum for all excavations within an operation. The datum for each operation was placed at or near the highest elevation on the mound. Pictures were taken at the beginning and end of each level. Significant features or materials were measured, drawn, and photographed. All photographs were logged on a standardized photography log. Basic information from each excavated lot was recorded on a standardized lot form and in narrative form in the excavator's notes. In both seasons, excavators included National Autonomous University of Honduras (UNAH, Tegucigalpa) undergraduate students in anthropology, local Pech *ayudantes*, and volunteers. All project members also participated in laboratory analyses, as described below.

Prior to beginning each lot, a complete collection of a flotation sample of roughly 2 liters was taken from the northwest corner of each unit. A soil sample (roughly 4 ounces) was taken from the southeast corner of the unit at the same time. Additional samples were collected when features or other significant finds were encountered. Most artifacts were bagged as they were encountered during excavation. The remaining sediment and smaller artifacts were screened using a 1/8th inch screen. All materials were sorted in the field. Fine ware ceramics (i.e., fragile) were bagged separately from coarse wares. Conch and oyster shell were bagged together separately from other less common shell species and other faunal materials (i.e., animal bone). Lithic materials were bagged separately.

Field laboratory analyses first included further separation of the materials. For the ceramics, body sherds smaller than 5 cm in diameter were weighed and their volume recorded before being reburied, unless they possessed some diagnostic feature. Body sherds larger than 5cm were counted, weighed, and volumes recorded. All body sherds larger than 5 cm were retained for future analyses. Conch and oyster shell were separated, weighed, and volumes

recorded. Large and small oyster and conch (>10cm in length) and small conch (<5cm in length) were also separated and counted.

All rims and diagnostic body sherds and other faunal (large and small oyster and conch) and lithic materials (besides FCR) were packaged and transported to the Laboratory of Archaeological Materials of the Department of Anthropology at UNAH in Tegucigalpa for detailed analyses. The methods of analyses used and the justification of each are discussed in the corresponding data chapter below.

Carbon samples that were collected in situ and intended for radiocarbon dating were handled only with a clean trowel before being packed in foil and then plastic in the field. These were exported and sorted under a microscope to remove any adhering material prior to submission for dating at the National Ocean Sciences Accelerator Mass Spectrometry Laboratory at the Woods Hole Oceanographic Institution. Procedures and protocols for sample preparation and analysis are available on their website. Other carbonized plant remains larger than 1/8th inch collected in each lot were labeled as bulk carbon and weighed. Bajareque (daub) was also retained and weighed by lot. Large pieces of bajareque or those with visible wattle/lattice impressions were photographed.

The primary goal of recovering charred plant remains during excavation was to acquire absolute dates to help build higher resolution chronologies of the region and of the occupational history of Selin Farm specifically. Additionally, radiocarbon dates from the top and bottom of individual mounds helped to address questions about how quickly refuse mounds were formed. Other charred plant remains were retained for identification that, in the future, will provide a complementary data set for the residue analyses presented in this study. Preservation of charred plant remains in shell midden contexts is often poor, but this was not the case for most of our

excavations at Selin Farm and future research at the site can use this information to plan excavation and recovery of these remains accordingly.

Following analysis, the majority of the lithic, shell, and ceramic materials smaller than 5 cm in diameter were reburied, according to the project agreement with the Honduran Institute of Anthropology and History (IHAH). All undiagnostic body sherds larger than 5cm were retained, along with unanalyzed flotation and soil samples and a sample of conch and oyster shell, are stored in IHAH facilities at the Santa Barbara Fort and Museum in Trujillo.

5.5 Excavation contexts

Based on pilot study findings, where it was determined that shell middens at Selin Farm represented communal feasting events, project excavations in 2016 targeted these contexts. Survey and surface collection data were used to select middens that would provide materials representative of the entire occupational history of the site (AD 300-1000). Three mounds were targeted (see Figure 5-6): Mound P (Early Selin AD 300-600), Mound U (Basic Selin AD 600-800), and Mound I (Early Selin AD 300-600, Basic Selin AD 600-800, and Transitional Selin (AD 800-1000). Mound O, a domestic structure with a final occupation date in the Transitional Selin, was excavated during the pilot study season only.

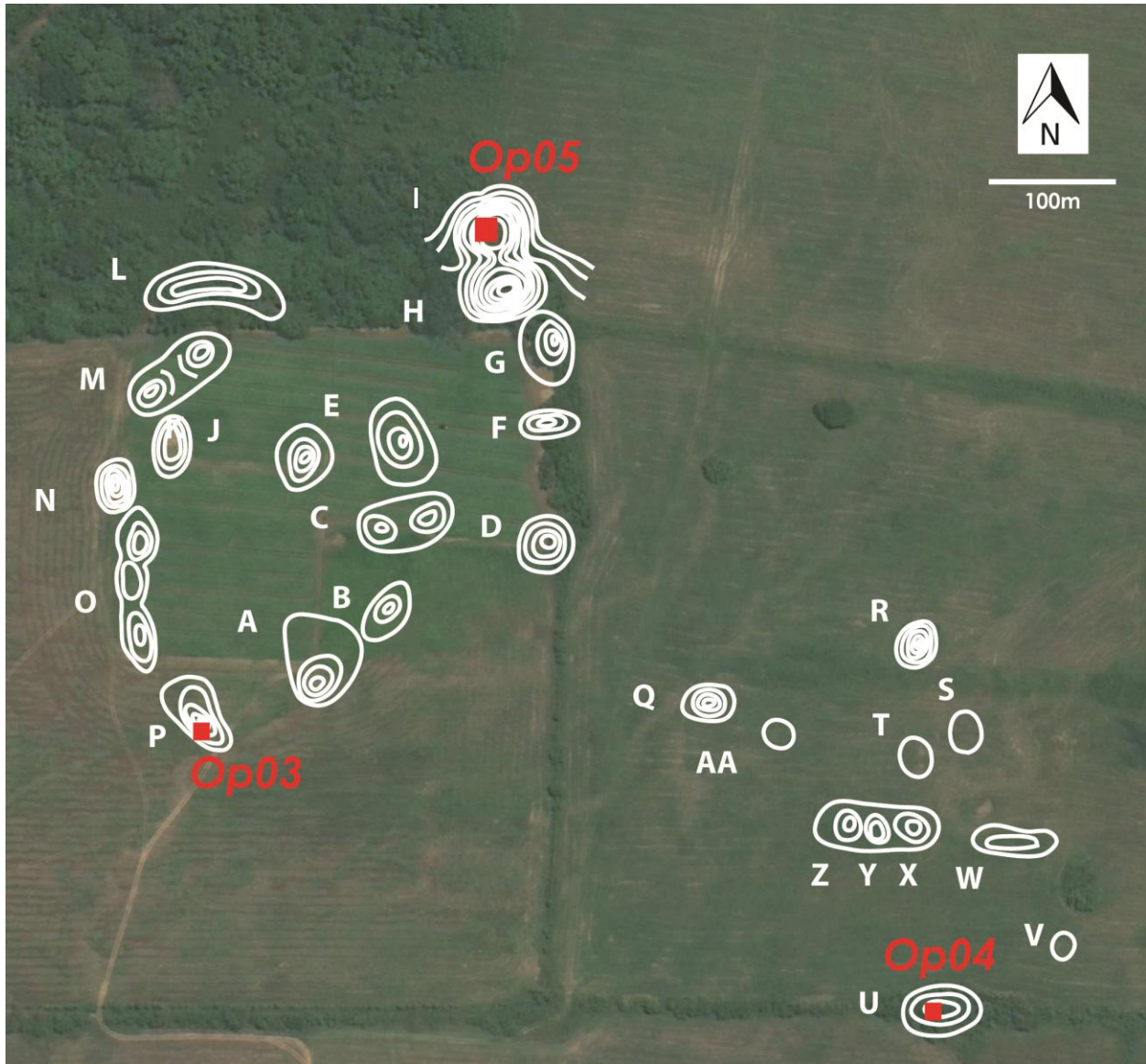


Figure 5-6 Map of Selin Farm showing excavations undertaken in 2016.

5.5.1 Mound P

Mound P (Operation 03) was chosen as a shell midden mound representative of the Early Selin period (AD 300-600), based on surface artifacts. Only two shell middens at the site were determined to have been used solely during the Early Selin – this and Mound A. Mound A had been previously excavated (Healy 1978a) and was eliminated as an option, leaving Mound P.

Mound P is a roughly circular mound with an average diameter of about 20m. Operation 03 was a 2x1 m unit running north-south from the summit of the mound.

Mound P was formed almost entirely of shell and ceramic refuse, with little sediment mixed in throughout the deposit. Preservation of materials was exceptional. Excavations recovered painted ceramics, some nearly whole vessels, well-preserved and often articulated bone, and whole, unbleached shell representing various species. During excavation, deposits alternated every 2-5 centimeters from solid strata composed entirely of ceramic materials to solid strata composed entirely of shell and back, although this occurred unevenly through even the small 1x1 m units in which we excavated. Discrete deposits were apparent horizontally and these were often restricted to one type of mollusk, suggesting primary deposition of refuse, perhaps even representing the discard of a single basket or pot of food scraps (Figure 5-7). The western profile of this excavation captures this phenomenon well, as a single deposit of conch shell is evident in the southern half of the profile at a depth of approximately 110 cm below the ground surface (Figure 5-8). Excavations were taken to sterile, clayey soil at around 2m below the summit surface (Figures 5-9 and 5-10).

Assessment of the timing of the formation of the Mound P by ceramic type varieties was supported by radiocarbon dates that ranged from *cal* AD 428-602 ($p = 0.95$, Calibrated at 2σ with the program CALIB 7.1 using IntCal 2013 [Reimer et al. 2013; Stuiver and Reimer 1993]; see below). Some weathering of materials and a slight increase in sediment at around 1m below the ground surface suggest that this level may have been exposed. This would indicate at least two depositional events took place here, which contrasts with later mounds that seemingly represent single use events. Refits of pottery vessels tend to support this division while radiocarbon dates were inconclusive in this respect (see Chapter 6). However, type-variety

analyses, which were used as the basis for distinguishing occupational phases within excavations (see Chapter 9) did not demonstrate any clear patterns to support this division. In the future, refining the ceramic chronology may help to define sub-period distinctions within Early Selin pottery. This would be useful for understanding this little-known period that to date is only represented by assemblages from Selin Farm. Mound P would be an ideal location for further excavations for this purpose given its well-preserved stratified deposits.



Figure 5-7 Well-preserved and nearly complete ceramic vessel near a concentration of small conch (*Melongena melongena*) shells in the Mound P (Operation 03) excavation profile.



Figure 5-8 Distinct deposit of conch shells (*Melongena melongena*) within the Mound P (Operation 03) excavation profile.



Figure 5-9 Photograph of north profile of excavations at Mound P (Operation 03).

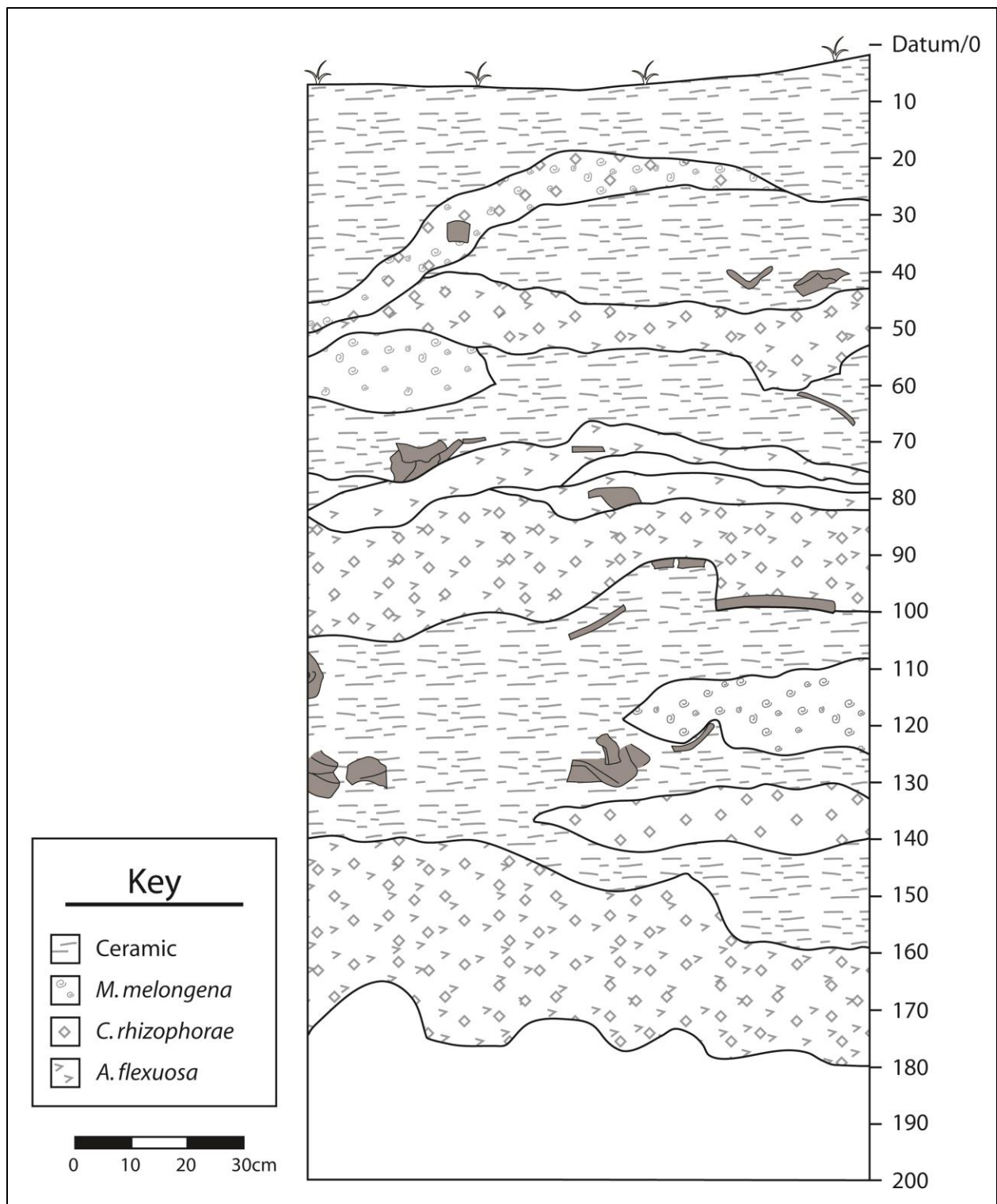


Figure 5-10 Profile drawing of the west wall of Mound P (Operation 03).

5.5.2 Mound U

Mound U was selected for excavation based on test excavations into this mound in 2013 that recovered evidence of Basic Selin period (AD 600-800) feasting events with well-preserved materials. It also represents a location peripheral to the site core that contrasts with the plaza-adjacent location of other mounds, contributing to the investigation of differences in feasting practice over space and time at the site. Our 2x1 m excavation (Operation 04) was placed on an east-west orientation on the northern portion of the summit.

Mound U is like Mound P in many ways. Roughly circular, it has an average diameter of about 25m. Type-variety analysis of ceramics recovered from the surface and from test excavations suggested a Basic Selin (AD 600-800) date for this mound. Radiocarbon dates support this conclusion. Interestingly, two charcoal samples from roughly 1.5 m apart (70-80 cmbgs and 220-230 cmbgs) returned identical dates of *cal* AD 657-764 ($p = 0.95$, Calibrated at 2σ with the program CALIB 7.1 using IntCal 2013 [Reimer et al. 2013; Stuiver and Reimer 1993]; see below).

As in Mound P, Mound U was composed almost entirely of exceptionally well-preserved shell and ceramic refuse with little to no sediment. Two whole vessels along with numerous nearly whole vessels were recovered by our limited excavations. Shell and bone were similarly well preserved and undisturbed, though not abundant. Deposits were composed of alternating thin (2-5cm) layers of ceramic and shell, with very little change apparent in deposits stratigraphically (Figure 5-11). Discrete deposits were again visible horizontally during excavation but were too thin to allow for independent excavation. Excavations reached sterile soil at around 2.5m below the summit surface (Figures 5-12 and 5-13).

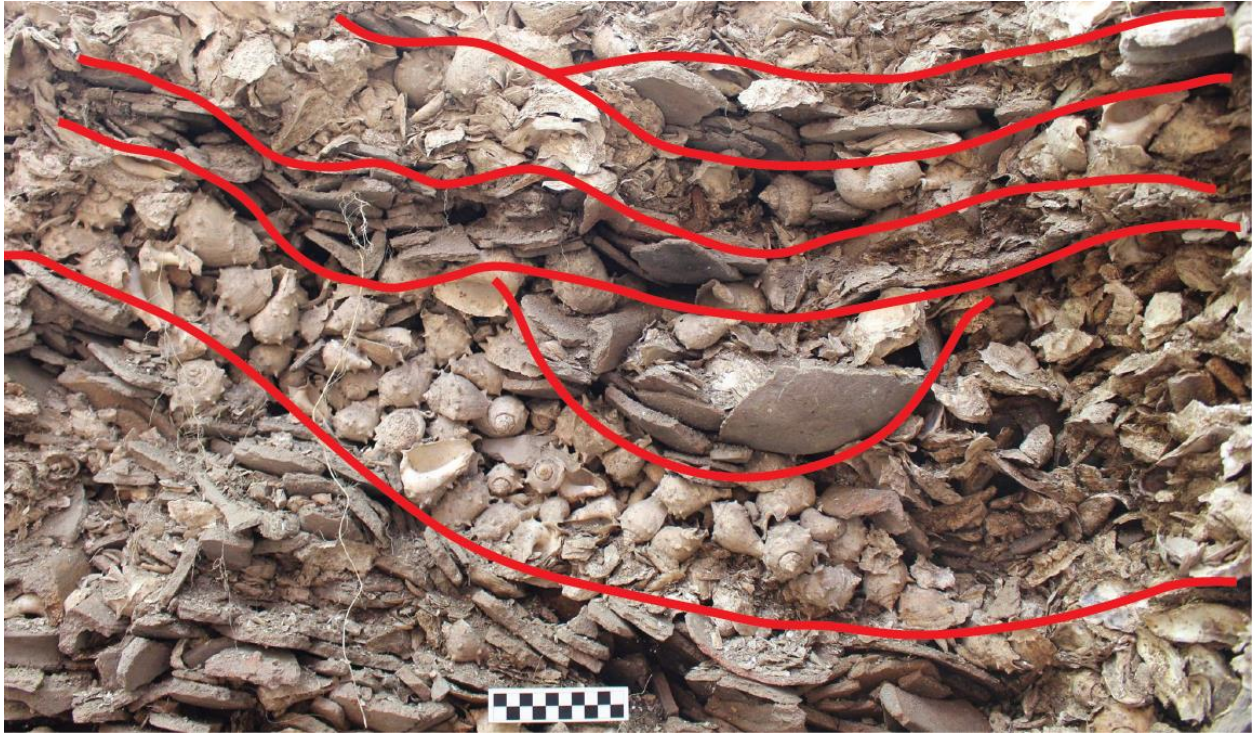


Figure 5-11 Alternating deposits of ceramic and shell in the north wall of Mound U (Operation 04).



Figure 5-12 West wall of Mound U (Operation 04).

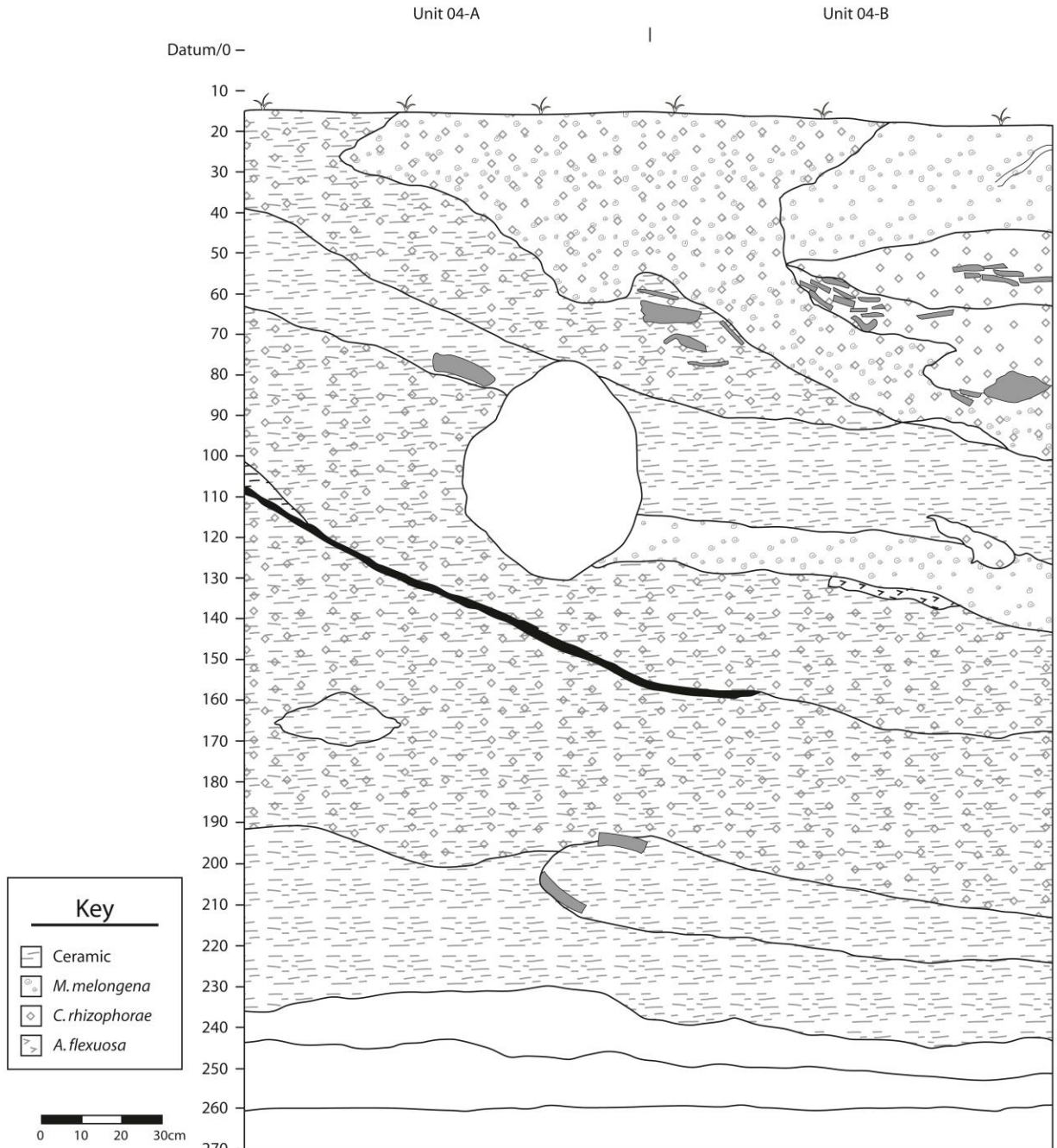


Figure 5-13 Profile drawing of the north wall of Mound U (Operation 04).

5.5.3 Mound I

Mound I is exceptional at Selin Farm in its size, shape, and composition. Unlike other mounds which are generally restricted to evidence of use during a single period, Mound I contains materials that span the entirety of the known occupation of the site (Healy 1978a, below). While surface materials suggest there were other Transitional-period occupations at the site, it is also the only known shell midden of this time period.

Mound I is built at the edge of a natural rise in the northeastern corner of the main group of mounds at the site, which slopes down naturally towards the lagoon, adding to its impressive appearance, particularly when approached from the mouth of the Silin River where it enters the lagoon, which lies roughly 700 meters beyond the mound to the northeast. The shape of the mound is roughly oval, with a slightly longer axis (roughly 40 m) running east-west than north-south (roughly 30 m). The eastern and western portion of the mound also taper gradually relative to the northern and southern slopes, suggesting these may have been ramped purposefully when the mound was formed or constructed, though this remains to be evaluated. Mound H, a large Early Selin period mound (Epstein 1957), lies immediately to the south-southeast of Mound I, creating a saddle in between where materials were either deposited or have tumbled down from higher up on these mounds. If caused by slope, most of the material in this hammock is likely to have come from Mound H, as Mound I appears to be exceptionally stable in its construction. Unlike the other mounds at the site, Mounds I and H have not been farmed historically and are currently found under a thick cover of secondary tropical forest just beyond the fence line of an agricultural parcel, which reflects the boundaries of both current and historic farm or grove land.

Boekelmann's expedition excavated a trench on the northern slope of Mound I (known as "Mound 8", see Epstein 1957), which is still visible today. Additionally, Healy (1978a:60-61)

also undertook a large excavation here, opening a 6x3 m mound into the summit, just northeast of our excavation. The depression caused by this excavation is also still visible today. Operation 05 was placed on the western edge of the summit of this mound. Healy reached sterile sediment at 4.65 m below the surface, whereas we encountered sterile at 4.3 m, which confirms that our unit was slightly to the west of the summit of the mound, or at least its final iteration (Figures 5-14 and 5-15). From surface collections and these previous excavations, we expected to find deposits from all three time periods of occupation of the site at this mound. This was the case during excavation. Each phase of occupation was represented by about 15 lots or levels of materials (roughly 1.5m thick deposits). Data presented below are organized according to these three phases within the mound. While materials decrease in density towards the upper levels of the mound, they cover a larger surface area as the mound grew in size over time. Given its size, construction of this mound would have required significant labor. Mound I clearly played an important and unique role in the lives of the inhabitants of Selin Farm.



Figure 5-14 Photograph of excavations at Mound I (Operation 05) viewed from the southwest.

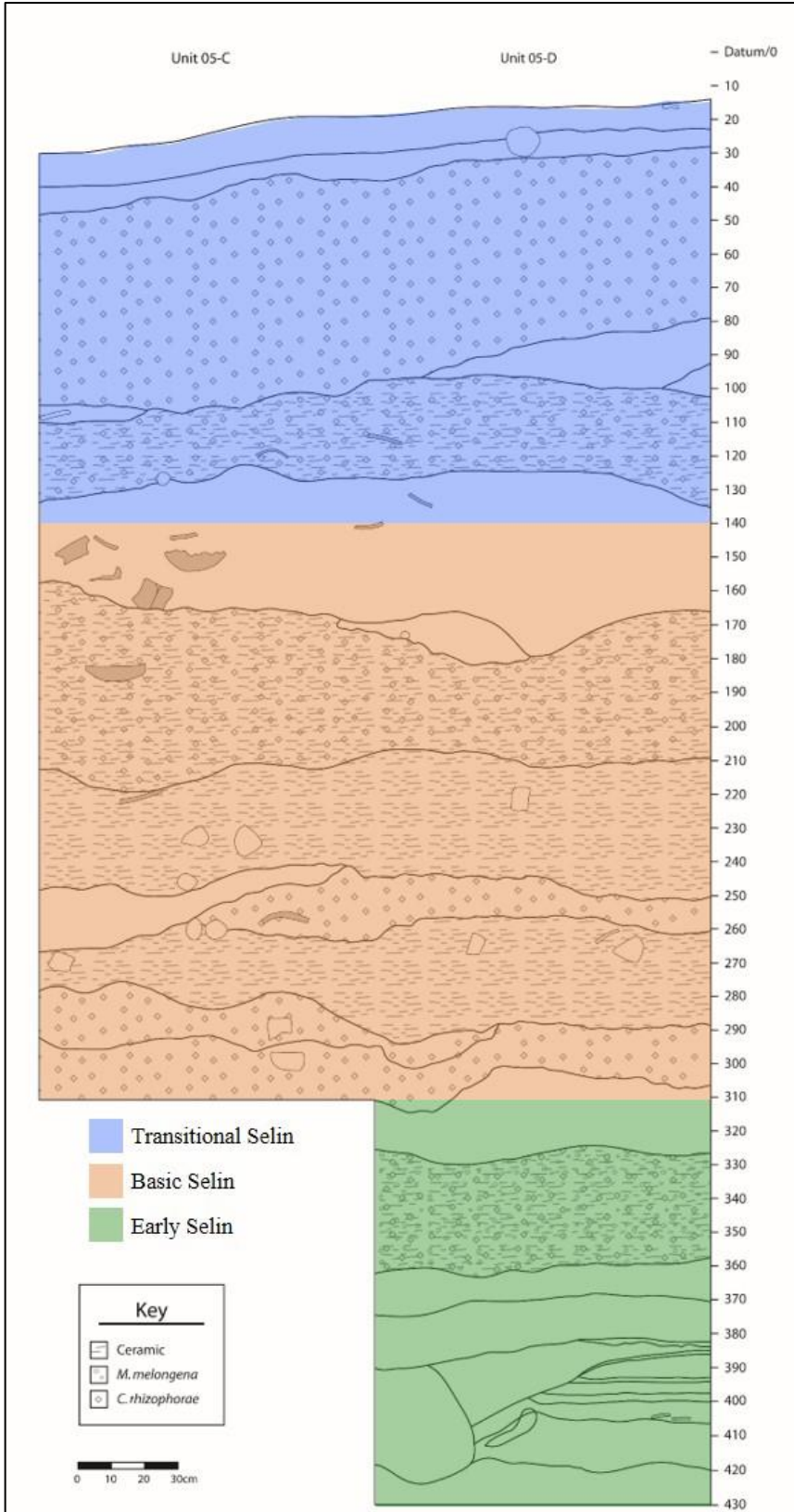


Figure 5-15 Profile drawing of the north wall of Mound I (Operation 05) with labelled occupational phases.

5.5.4 Mound O

Mound O was selected for excavation based on surface deposits of groundstone material that suggested it represented a domestic architectural feature – likely a platform mound for a residential superstructure. The purpose of excavating this mound was to gain insight into the nature of domestic deposits at the site and, because no domestic middens suitable for comparison with feasting middens were identified, domestic architectural fill was the only available alternative.

Mound O is situated along the western edge of the central portion of the site at the top of a small natural ridge that slopes south and west of the mound. This mound consists of three small rises reaching about 2 m in height set atop an elongated mound that runs about 40 m north-south and is roughly 10 m wide. An abundance of groundstone and plain coarse ware ceramics were found on the surface, suggesting domestic food preparation activities. Surface ceramics indicated the final phase of occupation of the mound was late in the history of the site during the Transitional Selin (AD 800-1000).

The construction of Mound O is similar to Healy's (1978a) account of Mound K, which he excavated more extensively and where encountered hearth features and clay floors, indicating residential use. Excavations reached sterile soil at around 2m below the summit surface (Figures 5-16 to 5-18). I interpret the shell layers throughout the mound as indications of actions related to the construction of each phase of the use of the mound, possibly ritual feasting at the household level. It is clear that the composition of this mound differs drastically from that of the shell midden mounds. Fill is primarily clay rich soil, even among the ceramic rich layers near the surface. Shell does not form any significant portion of the fill and is not nearly as abundant or as well preserved as in the shell midden mounds. Ceramics indicate there may have been some

mixing of deposits, consistent with the use of refuse for fill material, but that two phases of occupation were likely represented by the upper and lower portions of the mound. Radiocarbon dates support this interpretation as two dates, one from the top and one from the bottom of a core extracted from this mound in 2019 returned dates of *cal AD 677-866* and *cal AD 575-652*, respectively ($p = 0.95$, Calibrated at 2σ with the program CALIB 7.1 using IntCal 2013 [Reimer et al. 2013; Stuiver et al. 2019]; see below; Reeder-Myers and Goodwin 2019).



Figure 5-16 Photograph of the bottom of Mound O (Operation 01), facing east.



Figure 5-17 Possible feasting event near the bottom of Mound O (Operation 01).

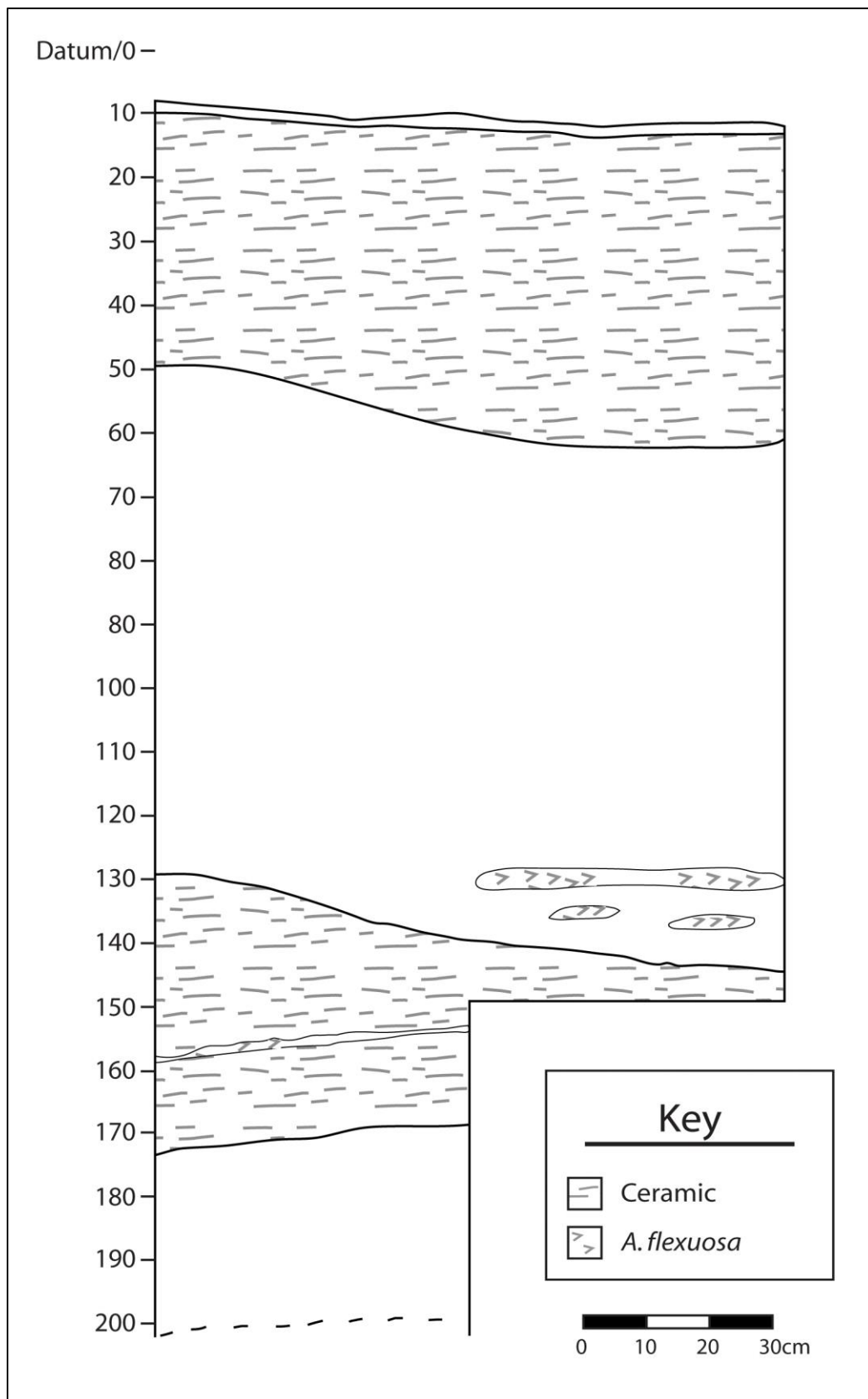


Figure 5-18 Profile drawing of the east wall of Mound O (Operation 01).

5.6 Summary

This chapter introduced Selin Farm and previous research at the site. Excavation methods and excavated contexts of the present study were also summarized, with further details available in Appendix B. Descriptions of the selected contexts provide qualitative information that support the interpretation that the shell mounds of Selin Farm were middens formed as primary refuse from feasting events. Indicators of feasting middens at the site include large mounds made up of rapidly deposited materials in large quantities with minimal sediment accumulation and weathering of materials. Stratified and spatially discrete deposits, often including articulated bone, support similar minimal post-depositional processes within and among the mounds. Lack of evidence for disturbance of the mounds, despite continuous occupation of the site for at least seven hundred years, also speaks to the ritual significance of the resulting middens. Quantitative assessments of the formation, composition, and post-depositional histories of these mounds are presented in the following chapter.

CHAPTER 6 : EXCAVATION DATA

Several measures were used to assess the nature of the excavated deposits at Selin Farm, with the goal of first supporting their characterization as feasting middens, and then assessing the scale, content, and form of feasting events at the site over time and space. Feasting middens generally demonstrate rapid deposition of large deposits as primary refuse (Hayden 2001; Table 4-1). The previous chapter introduced excavated contexts and presented qualitative descriptions of the deposits that indicate they are feasting middens. These included minimal weathering of materials, limited sediment accumulation, and stratified and spatially discrete deposits with little evidence of disturbance. The present chapter provides quantitative measures that support the interpretation of the shell mounds at Selin Farm as feasting middens, and that also allow for the comparison of the scale of these events.

6.1 Refits

Refits of sherds (i.e., broken pieces of the same vessel) between excavated levels were used to help understand the depositional history of excavated deposits. Particularly, refits help inform on the rate of deposition and the size of deposits. Rapid deposition of large deposits is suggestive of feasting middens. Results are presented by mound in Table 6-1. Each column represents a different vessel. Vessel refits were present in all contexts and spanned most

excavated levels. Refits demonstrate that many of the arbitrarily excavated levels and even some of the deposits distinguished within an excavation based on changes in artifact composition or soil matrix (see Appendix B) are not representative of distinct episodes of deposition. In fact, some refits spanned up to six lots (60 cm in depth). Deposits in the shell middens were both large, with evidence of single depositional events comprising all or most of our excavated units and were also rapidly deposited in a single location with no movement of the materials after primary deposition. This is reinforced by the presence of whole and nearly whole vessels in all contexts (Figure 6-1).

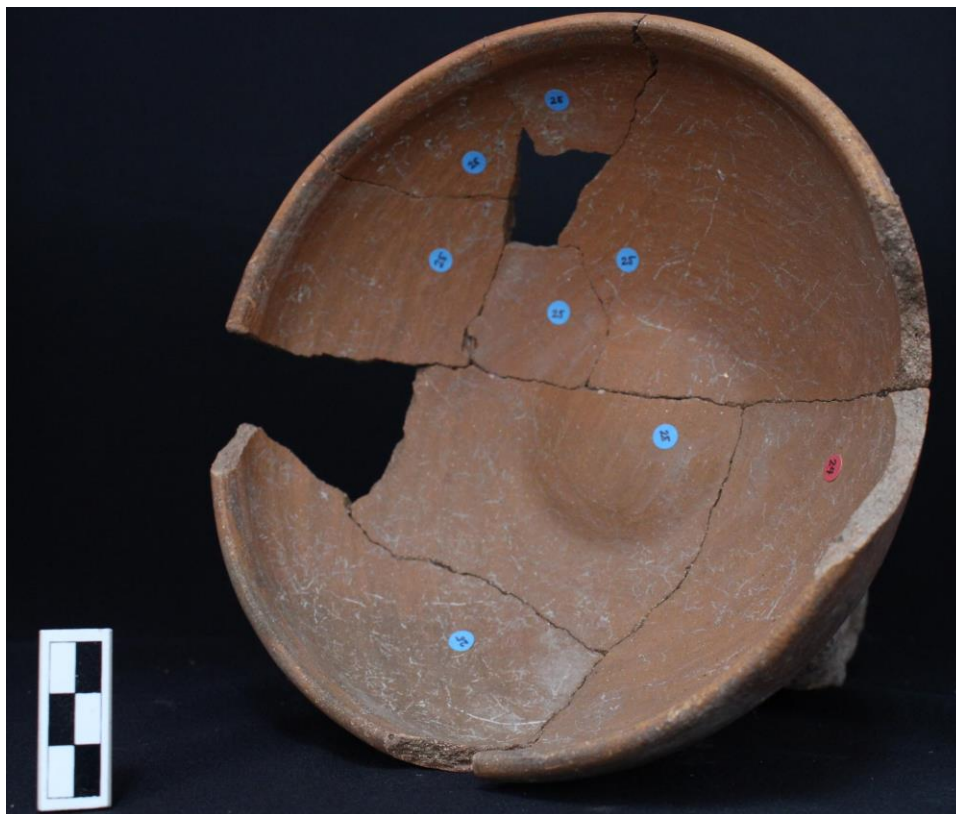


Figure 6-1 Nearly whole vessel recovered from Mound U (Operation 04) showing refits from various lots.

Refits were most numerous, were represented by the highest number of vessels, and spanned the most levels within the Basic Selin (AD 600-800) deposits in Mound U, followed by Basic Selin deposits in Mound I (Lots 16-30). The increase in both the number and the distance of refits is in line with other evidence that suggests that the scale and intensity of feasting events at the site was greatest during this time period. The fact that this trend was apparent in both Basic Selin contexts suggests that it was not restricted to a particular location at the site.

The lack of refits between the upper and lower levels of Mound P support the conclusions drawn from other evidence (i.e., weathering of materials, changes in matrix, radiocarbon dates) that this mound likely represents two episodes of deposition. This is also true for the lack of refits between Basic Selin (lots 16-30) and Transitional Selin (Lots 1-15) deposits within Mound I, reinforcing the distinction of deposits based on other data, particularly type-variety analyses of the pottery (see Figure 9-10). The lack of refits within Early Selin deposits (Lots 30-43) from Mound I is likely reflective of a small sample size that was not as well-preserved as the rest of the assemblage from the site.

In contrast with the shell midden mounds, Mound O contained no discernable refits across excavated levels. This reinforces the differences between this and other deposits at the site, which are attributable to differences in function and composition between these mounds. The architectural fill of Mound O was composed of clayey soils to provide a stable platform for a residential superstructure. Shell and ceramic refuse would not have been functionally suitable for this purpose. Clayey soils also provided a stable living surface for domestic activities (e.g., hearth construction, see Healy 1978a).

Table 6-1 Ceramic refits by mound.

Mound P		
Lot	Refits	Lot
1	V	1
2	V	2
3		3
4	V	4
5	V	5
6	V	6
7	V V	7
8	V V	8
9	V	9
10	V	10
11	V	11
12		12
13	V	13
14	V	14
15	V V V	15
16	V V	16
17	V V	17
18		18
19		19
20		20

Mound U		
Lot	Refits	Lot
1	V	1
2	V V	2
3	V V	3
4	V V	4
5	V	5
6	V V	6
7	V V	7
8	V V V	8
9	V V V	9
10	V V V	10
11	V V	11
12	V V	12
13	V V	13
14	V	14
15	V V	15
16	V V	16
17	V V	17
18	V V V	18
19	V V V	19
20	V V V	20
21	V V	21
22	V V	22
23		23
24		24
25		25

Mound I		
Lot	Refits	Lot
1	V	1
2	V	2
3	V	3
4	V	4
5		5
6		6
7		7
8		8
9	V	9
10	V	10
11	V	11
12	V	12
13	V	13
14	V V	14
15	V V	15
16	V	16
17	V V	17
18	V	18
19	V	19
20	V	20
21	V	21
22	V	22
23	V V	23
24	V	24
25	V	25
26	V	26
27		27
28	V V	28
29	V V V	29
30	V V	30
31		31
32		32
33		33
34		34
35		35
36		36
37		37
38		38
39		39
40		40
41		41
42		42
43		43

6.2 Radiocarbon dates

Radiocarbon dates were used to confirm the relative timing of mound formations as determined from type-variety analyses, but also to provide absolute dates to speak to the rate of deposition and to uphold interpretations about the stratigraphic integrity of deposits, which tie back to both their definition as feasting middens and the lack of post-depositional disturbances suggesting primary refuse.

I obtained six radiocarbon dates from samples taken from the 2016 excavations (Table 6-2). These were all obtained from charcoal, most of which was identified as wood of an unknown species. Calibrations were performed using the CALIB 7.1 Radiocarbon Calibration Program using the IntCal 13 data set (Reimer et al. 2013; Stuiver and Reimer 1993). AMS radiocarbon dates were performed at the National Ocean Sciences Accelerator Mass Spectrometry facility at the Woods Hole Oceanographic Institution which is supported by the NSF Cooperative Agreement number, OCE-1239667. A piece of branch coral from Mound I at the Basic to Transitional Selin transition (05-D-15) was also dated using U-series dating and returned a date of 1201 ± 83 yr. BP, AD 749 (AD 666-832).

Table 6-2 Calibrated AMS radiocarbon dates and U-series date obtained by the present study.

Mound	Depth	Radiocarbon Age	Error (+/-)	Cal two sigma	Time Period	NOSAMS Accession#
Mound P	30-40	1500	15	AD 543-602	Early Selin	OS-145217
Mound P	180-190	1540	20	AD 428-574	Early Selin	OS-145218
Mound U	70-80	1320	20	AD 657-674	Basic Selin	OS-145219
Mound U	220-230	1320	20	AD 657-674	Basic Selin	OS-145220
Mound I	150-160	1201	83	AD 666-832	Basic Selin	U-series date
Mound I	170-180	1250	20	AD 679-777	Basic Selin	OS-145221
Mound I	370-380	1540	20	AD 428-574	Early Selin	OS-145222

All radiocarbon dates from Selin Farm suggest that deposits are in stratigraphic order and that mixing of deposits was limited if it occurred at all. All dates were in line with both type-variety analyses and with previously reported dates from Healy's (1975, 1978a) excavations. It also appears that most mounds, particularly the shell midden mounds at the site, were occupied for brief periods of time that correspond to single occupational phases. Mound P returned overlapping dates from deposits roughly a meter apart, which neither refutes nor necessarily upholds the interpretation of this mound as representing two distinct depositional events. Mound U returned two identical radiocarbon dates, despite a difference of 1.5 meters in depth in the provenience of the samples. This is significant in demonstrating rapid formation of the shell midden mounds and is possibly the strongest line of evidence for demonstrating the function of these mounds as primary refuse locations representing single episodes of feasting-related disposal.

Mound I is the clear exception to this pattern of brief occupation or use of the mounds, as both my samples and Healy's (1978a) returned dates that span the entirety of the known occupation of the site. Radiocarbon dates uphold internal divisions among deposits within the mound into the three occupational phases identified by Healy. Concordance between the results of my type-variety analysis and the radiocarbon dates speak to the utility of Healy's (1993) ceramic chronology, although this was certainly aided by the fact that this sequence was developed from the same site and sometimes assemblages from the same mounds.

6.3 Mound composition

Mound composition refers to the relative abundance of sediment to other materials within the mounds as well as the density of artifacts within each mound. These measures help evaluate

the formation and post-depositional processes of the deposits. Limited soil formation within mounds points to rapid deposition. If cultural, rather than natural, processes are at play, however, the presence of soil may not indicate long-term exposure of deposits. Rather, if paired with other evidence for rapid formation, abundance of soil suggests purposeful construction rather than midden formation as a byproduct of disposal practices. This helps highlight differences in mound construction that relate to both the content and form of feasts. Similarly, a high density of materials within a deposit must be paired with other indicators to suggest rapid accumulation. When combined with evidence for rapid deposition and information on mound size, the density of deposits can contribute to our understanding of the scale of feasting events. Variation in the density of different materials across contexts also indicates differences in the content of feasts that can be further explored using analyses of specific material classes.

6.3.1 Sediment volume

To obtain quantitative and thus comparative measurements of mound composition, measures of the volume and weight of the two major classes of materials encountered – ceramic and shell – were taken in the field laboratory. Sediment volume was estimated by subtracting the total volume of ceramic and shell materials from the estimated volume of matrix excavated (Figure 6-2).

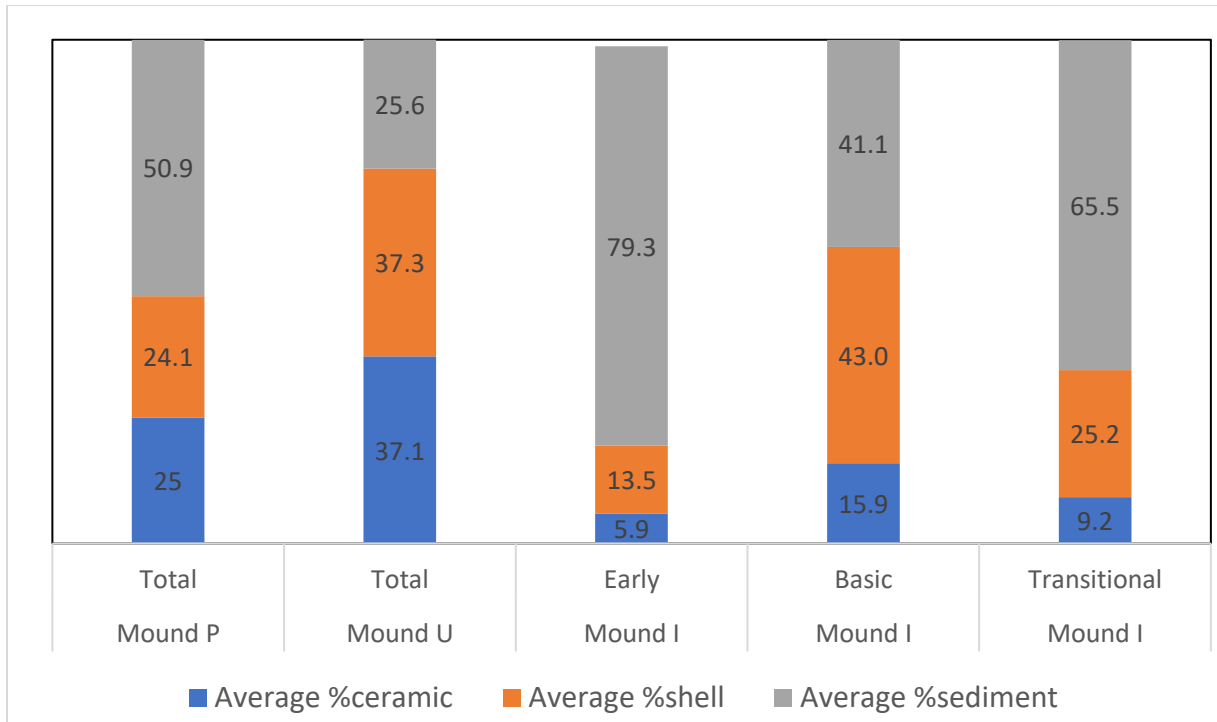


Figure 6-2 Average percentages of ceramic, shell, and sediment by mound and period.

The composition of Mound I differed from others. The amount of sediment in the deposits was higher here than any other mounds, with an average of 60% across the three phases of occupation (Figure 6-3). Additionally, the relatively high measure of sediment in Mound P can actually be explained by a flaw in the technique used to determine sediment abundance. Voids in the deposits, created by gaps among loosely piled and untrampled materials (see Figure 5-7 above), were mistakenly calculated as sediment. Evidence of this difference can be seen in the profiles of the mounds. The purposeful addition of sediment in Mound I lent a stability to the deposits not seen in other mounds.

Considering the amount of labor required to mix this amount of sediment into the deposits, along with other evidence outlined above (size of the deposits, ramped sides, long-term use), this is suggestive of purposeful construction of Mound I in a manner not seen elsewhere at this site. Mound I was built over a period of roughly seven hundred years, spanning the entirety

of the known occupation at the site. Multiple depositional events were identified, but these appear to be internally homogenous and representative of different phases of construction that correspond to different occupational phases. The layering of alternating materials within deposits, as in other mounds, suggests primary refuse deposition. Articulated bone was also present throughout the deposits. As seen below with average sherd sizes, little to no trampling or mixing is evident except for at the boundaries between large scale deposits.

In sum, Mound I demonstrates the same evidence for rapid deposition as the other mounds, but with the addition of sediment. Rapid deposition and lack of weathering negates the possibility that the sediment was included by natural processes and points to a purposeful action on the part of the people who built the mound. Given the labor input required for such a mound and evidence for large episodes of building, it seems likely that the construction required individuals from outside the village of Selin Farm to participate. The size of the mound and its manner of construction are suggestive of monumental architecture, which was previously unknown for the northeast region during the Selin period (AD 300-1000). That the construction of the mound is tied to feasting activities suggests that this monumental structure was built as part of supra-community alliance building work-party feasts (Dietler and Herbich 2001; Wells 2003, 2007).

The function of Mound I as monumental architecture is most clear during the final phase of occupation with evidence of superstructure at the summit of the mound. Post pits and bajareque in the layers dating to the Transitional Selin (AD 800-1000; Figures 6-4 and 6-5) suggest that the summit of Mound I became the location for new, restricted practices that were likely related to ritual given the association of this structure with a relative increase in ritual items (e.g., incense burners and obsidian blades, see Chapters 8-9). This suggests a change in

both the content and the form of feasting at Selin Farm that coincides with broader social and political changes taking place throughout the northeast and the southeastern Mesoamerica at this time. These changes in ritual were likely closely tied to processes of increasing social inequality and complexity that becomes apparent by around AD 1000 throughout northeastern Honduras (Cuddy 2007; Healy 1984a, 1984b).



Figure 6-3 Photograph of profile detail of Mound I – note the amount of sediment present when compared to Figure 5-7 above.



Figure 6-4 Post pit located on the northwestern corner of Operation 05 in Mound I.



Figure 6-5 Bajareque fragments with stick impressions recovered near the summit of Mound I.

6.3.2 Artifact density

Density measurements were obtained by dividing the weight of material by the volume of matrix excavated (Table 6-3). Densities are presented as volume per liter of matrix excavated to account for differences in the volume of lots and size of excavations across contexts. High density of artifacts helps demonstrate that these were large deposits and, when considered in conjunction with mound size, contributes to comparisons of the scale of events (i.e., group size) that lead to individual depositional events. Furthermore, the density of different materials – specifically ceramic and shell – also point to differences in the content of these feasts that are further explored in the following chapters.

Table 6-3 Average densities of excavated materials by mound.

	Average ceramic density (g/L)	Average shell density (g/L)
Mound P	307.3	105.4
Mound U	517.0	82.6
Mound I Early	114.5	104.1
Mound I Basic	259.3	167.9
Mound I Transitional	92.3	58.1
Mound I Overall	172.3	116.4
Mound O	.3	NA

Mound O, the only domestic context excavated, stands out in its low density of materials, as expected given the different function of the mound and noted differences in its composition. Unlike in Mounds U and P, pottery formed a relatively small proportion of the materials used to make Mound I. The remaining volume was filled by sediment, as discussed above. Low average densities in all deposits in Mound I are explained by the addition of sediment as well as the greater surface area over which these deposits would have been spread. Considering that the final iteration of this mound was at least twice the size of the other mounds, the less dense deposits do not likely represent smaller events or fewer people partaking in those events. In fact, if the density of artifacts is broken down by material, shell density remains high in Mound I relative to other contexts across the site. It is the ceramic materials that are less abundant. This suggests that many people were being fed in the feasting at Mound I, likely more than in any other events at the site given the size of the mound. The use of pottery, however, differed in this setting. The nature of this difference is explored in more detail in Chapter 9, but the difference in content is tied to the unique form of feasts taking place in Mound I, which included individuals from beyond Selin Farm in work-party feasts. The lower density of ceramic materials (which are primarily food preparation vessels) is likely tied to some of the food production for these supra-community feasts having taken place at other locations.

6.4 Average sherd size

Ceramic materials that were undiagnostic body sherds over 5cm were also counted and weighed separately to provide average sherd size (weight divided by count) for each context (Figure 6-6). Sherd size is useful in determining the nature of deposits (i.e., primary versus secondary) as well as for evaluating the level of disturbance in a deposit (Beck 2006:37; Nielsen 1991; Orton and Hughes 2013:269). More events in the post-depositional history of a vessel tend to result in smaller average sherd sizes within an assemblage or deposit, and similarities in post-depositional histories should be reflected in similar size categories.

A fairly consistent average sherd size (between 30-40g/sherd) across all mounds and periods supports the interpretation that these deposits were formed from similar depositional events, namely as primary refuse deposits. These similarities across the midden mounds also suggest that they underwent similar post depositional processes. Across the site, post depositional disturbances of these deposits is minimal despite at least seven hundred years of occupation at the site. The size of sherds is much larger than would be expected had even limited trampling of the deposits taken place. These purposeful deposits were associated with ritual feasting practices and likely remembered as specific events that imbued the resulting mounds with significance for the communities of consumption that created them. This surely contributed to their preservation by following generations throughout the long history of occupation at Selin Farm.

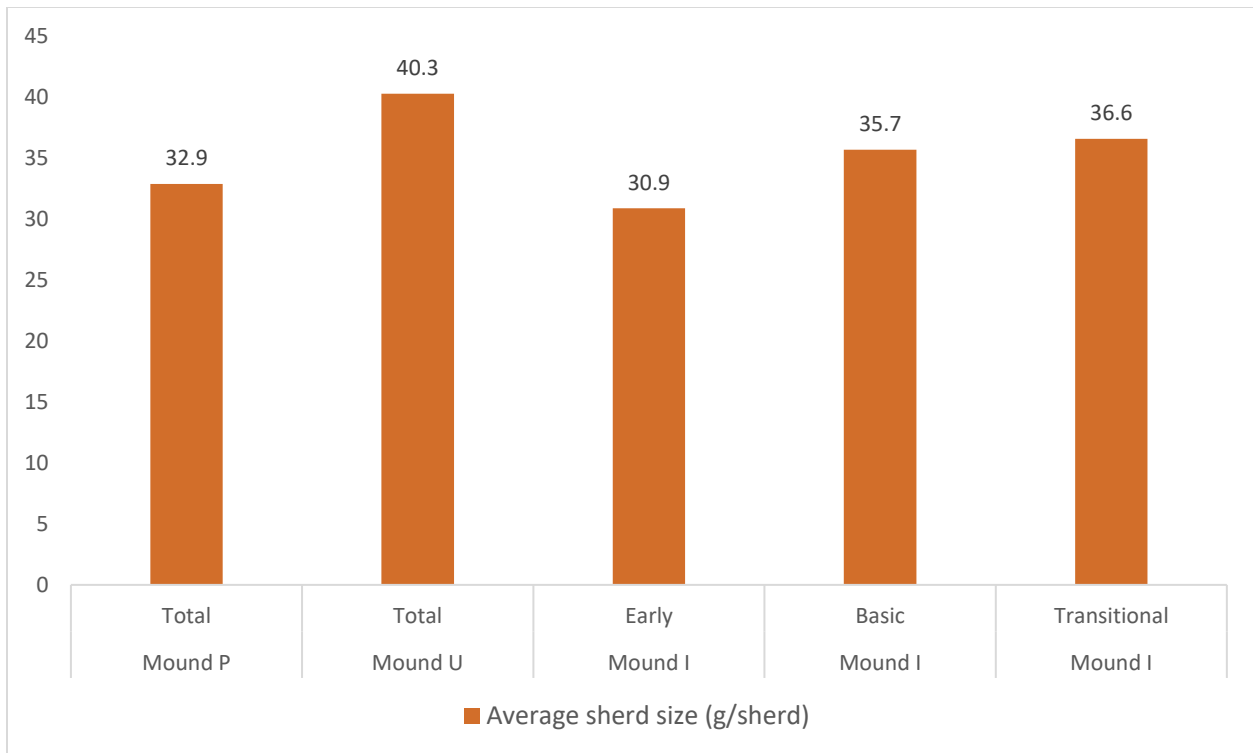


Figure 6-6 Average sherd sizes and counts by mound and period.

6.5 Summary

The size of deposits excavated at Selin Farm and the quantity of materials within them suggest that all excavated contexts, with the exception of Mound O, were representative of large scale inter- and intra-community feasting events. The size and composition of Mound I, in particular, suggests supra-community labor mobilization likely organized through work-party feasts with the goal of creating and sustaining community alliances. The evidence for the construction of a superstructure at the summit of this mound during its final phase of use suggests feasting, or at least some aspects of the ritual surrounding feasting, became more exclusive over time although large groups continued to take part in food consumption. In contrast, Mounds U and P likely represent community feasts aimed at building inter-community solidarity. These may be analogous to some of the important life-cycle ceremonies described in

Chapter 3. However, the practices and patterns of disposal that led to the construction of Mound I were also at work in the events that resulted in Mounds U and P, just at a smaller scale. Even Mound O, with small lenses of shell debris, suggests similar feasting or eating rituals occurred at the household level, with the use of similar materials across time and space. Similarity in content despite differences in the form and scale of the feasting events at Selin Farm points to feasting practices in line with what might be expected among egalitarian groups, where feasts are used to emphasize group cohesion (Hayden 2001; Kassabaum 324).

The size of the mounds, the consistently high amount of materials in the midden deposits, and the consistency in content and structure of the deposits suggests that considerable effort went into their formation. That these practices were repeated over the entirety of the occupation of the site in similar ways signals that not only were these feasting events carefully planned and the traditions of food and pottery in these settings passed down for many generations; it also suggests that the disposal of materials was a central aspect of these events. Participants in these feasts were surely aware of the long-term physical manifestations that would ultimately result from their involvement in these purposeful consumption and discard events (e.g., Hendon 2010; Joyce 2008; Joyce et al. 2009). The resulting alteration of the landscape by the formation of each of these midden mounds would have had important implications and their continuing presence would have altered social and political relations long after their initial construction. By the final phase of occupation of the site, shell midden mounds would have dotted the landscape from the site core towards the lagoon, visible to those who took part in the construction and use of Mound I during the final phase of occupation of the site.

Practices of maintenance, or lack of alterations to midden mounds in the case of Selin Farm despite a continuous occupation of the site for seven hundred years, suggest the special

purpose refuse mounds were important structures on the landscape that likely served as a source of symbolic capital for individuals and groups and were significant features for collective memory and identity (Mills and Walker 2008; Joyce 2008).

Finally, although raw counts are not as useful for comparative purposes across contexts as standardized measurements, they do speak to the scale of events taking place at the site. Our limited excavations at the site (roughly 10m³, see Appendix B) recovered 2,695 kg of pottery (2,034 liters, nearly 50,000 sherds total or around 2,160 sherds per lot) and 1130kg of shell (2,649 liters). These data provide future studies at Selin Farm and in the broader region a baseline from which to measure the relative abundance of materials. This should also signal to future researchers the need to sample contexts carefully and to have a plan in place for the curation of materials from this and similar sites.

CHAPTER 7 :

FAUNAL DATA

For the present study, faunal analyses served specific, but limited, goals. First, in the previous chapter, bulk measurements of shell weight and volume were used to help identify and compare the scale of feasting episodes (particularly “clean shell” deposits that represent rapid deposition, see Russo 2014, Chapter 4). In this chapter, more detailed data on the two main species of mollusk encountered - mangrove oyster (*Crassostrea rhizophorae*) and conch (*Melongena melongena*) – are presented. The quantity of shell remains in excavated contexts helps understand the scale of events generally. Species specific data, when combined with information from ethnographic studies, allows for a more behaviorally meaningful interpretation of the data that informs on the labor required for food production and processing, as well as allowing for relative measurements of group size involved in events. Additionally, size data on large oyster and both small and large conch served as a rough estimate of resource depletion, access to or knowledge of varied resources, and sustainable resource management practices (O’Dea et al. 2014; Rick et al. 2016).

Data on modified shell and bone provide supporting evidence for feasting (i.e., ornamental regalia worn during ritual) and allow for comparisons of the competitive aspects of feasting across contexts given their use as individual status markers. Historic accounts of ceremonies among the Pech demonstrate the importance of shell and bone implements in ritual

(Conzemiuss 1927; Flores Mejia 1989; Flores Mejia and Griffin 1991; Griffin et al. 2009). In addition to serving as general status markers, differences in material use for ornamentation may even point to gendered participation in feasts, as historic sources document differences in bead production and display between women and men, with the former employing only shell and the latter only bone (Conzemiuss 1927:284).

7.1 Faunal analysis methods

In the field laboratory, all shell was rinsed and sorted into four groups: oyster (Mangrove oyster, *Crassostrea rhizophorae*), conch (West Indian crown conch, *Melongena melongena*), other species, and modified specimens. Mangrove oyster and West Indian crown conch were the most abundant species in excavation (averaging roughly 30% of the total volume excavated per lot, but sometimes reaching around 90%). Weight and volume measures were taken for these species but, because of their abundance, only a small sample was retained for future analyses. Because there were clear differences in the size of specimens for these two species between deposits, counts of conch measuring smaller than 5 cm and larger than 10 cm were also recorded, as well as counts of whole oysters measuring over 10 cm in length, in order to roughly quantify these differences.

Modified shell was identified to species level, where possible, using the shell identification guide that was developed as part of this study (Elvir and Goodwin 2018), and the type of modification was recorded (see Appendix C). Other species of unmodified mollusks were not identified or quantified for the present study but were retained for future analysis.

Other modified faunal materials (i.e., vertebrate animal bone) were also identified to species and element and type of modification was recorded (see Appendix C). Identification of

faunal remains was undertaken in the field without access to a comparative collection, and it was often only possible to identify classes of animal (large, medium, or small mammals, or fish) and general element (e.g., vertebrae). All unmodified bone was retained for future analysis.

7.2 Mollusk species

Emphasis on mangrove oyster (*Crassostrea rhizophorae*) and conch (*Melongena melongena*) demonstrates a reliance on mangrove and intertidal environments. It should be noted that exceptional preservation of faunal remains, due to the alkalinity of the shell in the deposits, allowed for the identification and quantification of faunal remains in ways that are uncommon in most archaeological sites. Most specimens were whole and undamaged, suggesting they were boiled to extract meat or not cooked at all. The majority of shell, as mentioned above, was also “clean” (Russo 2014), with no staining from organic soils as might be expected in typical middens and no evidence of bleaching from exposure.

Overall quantities of resources consumed are difficult to estimate, but some conservative measurements can be made. Average measures of oyster and conch density are presented in Figure 7-1. Considering that a raw oyster in its shell weighs on average 50g, the average weight of oyster per liter (average around 100 g but reaching over 350 g), means that a lot on average contains the refuse from around 200 whole oysters. If these deposits stretch over an area of a 20-40 m diameter mound, the result suggests that even a single lot contains more oyster than could feed the entirety of a small village like Selin Farm. If several of these layers were deposited together and if, as there is evidence for, other foods including large mammals like deer, jaguar, and even manatee were consumed along with these resources (not to mention conch and plant

resources), it seems likely that people from outside the village were attending feasting events at the site, particularly the events that resulted in the construction of Mound I.

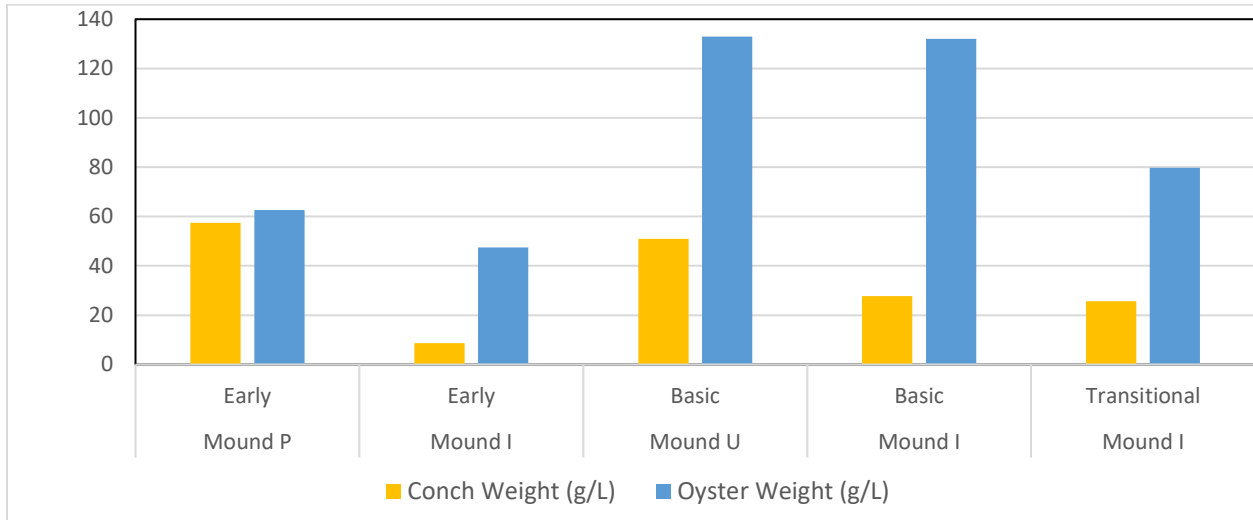


Figure 7-1 Average densities of conch and oyster by mound and period.

Raw weight of shell remains also provides a useful way to consider food provisioning behavior among the inhabitants of Selin Farm. Ethnographic work among the Rama along the Atlantic coast of Nicaragua documents oyster consumption among household units. A typical household can gather about 500kg of oyster in a month (Acosta 2016). Figure 7-2 provides the raw weight of oyster shell for a 1x1m unit from each excavation. The densest deposits, in Mound U, had totals nearing the monthly catch for an entire household. Considering that the mound was around 20m in diameter and that oyster cannot be stored for great lengths of time, these deposits represent a coordinated effort that required the mobilization of labor beyond the immediate household.

Estimations of conch use were more difficult to determine because modern ethnographic work records shell count rather than weight. Lower population densities make this a more specialized task, with a range of 10-20 conch a day or under 200 conchs harvested a month recorded in different regions (Acosta 2016:15; MacKenzie and Stehlik 1996). At Selin Farm, conservative estimates of total number of conchs demonstrate intensive use of conch in the excavated contexts. If a large conch weighs roughly 2.5kg, our excavated samples represent somewhere between 4-50 conch per 1x1m unit. With total mound volume considered, this measure also represents a considerable amount of labor, likely requiring organization beyond the household level.

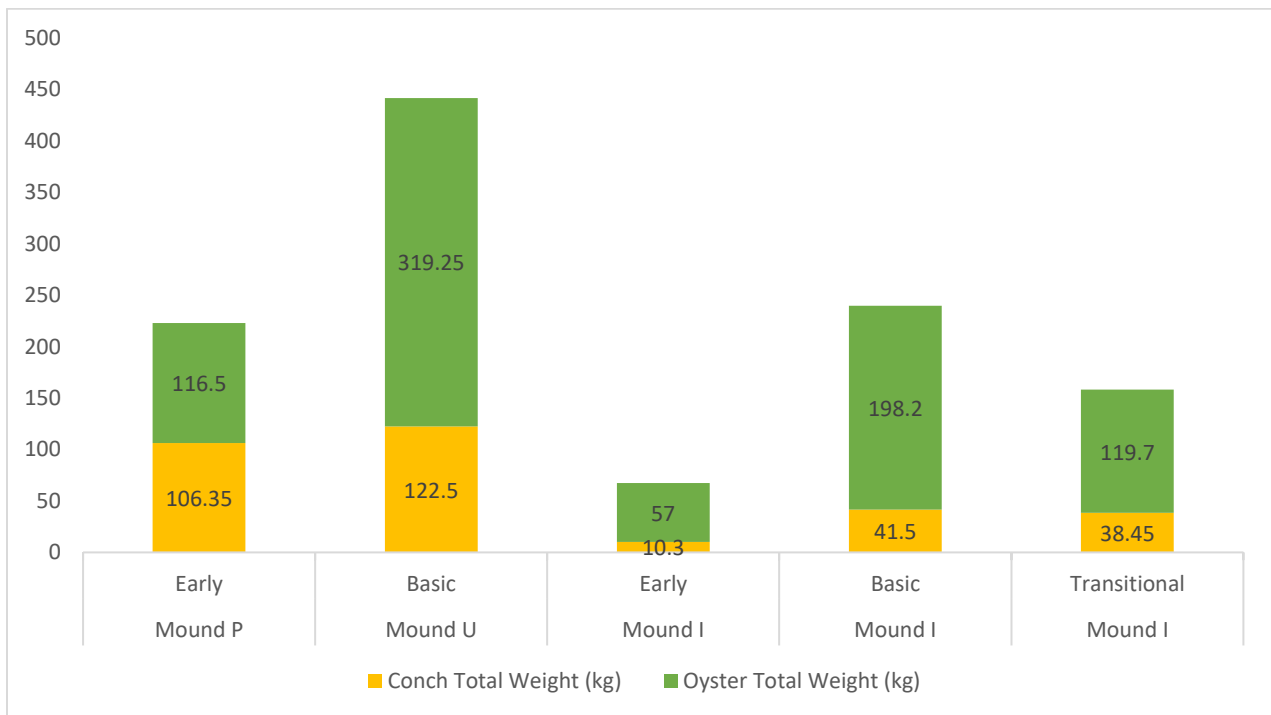


Figure 7-2 Total weight of recovered conch and oyster by mound and period.

7.3 Mollusk size

Standardized estimations of mollusk use are useful in determining the scale of events and group size, but these measures gloss over differences in the intensity of exploitation of oyster and conch over space and time. To complement these data, measures of large (>10cm in length) oyster and conch, as well as small (<5cm in length) conch provide additional information for considering differences in resource use at Selin Farm.

Whereas bulk weights of shell point to fairly similar relative abundances of oyster and conch over space and time, the size data on the two different species demonstrates stark contrasts over both space and time (Figure 7-3, Table 7-1). Although there are spawning seasons for both species, they are both generally available year-round (see Chapter 3). Differences here are likely better explained by exploitation of varied locales or environments, rather than seasonality.

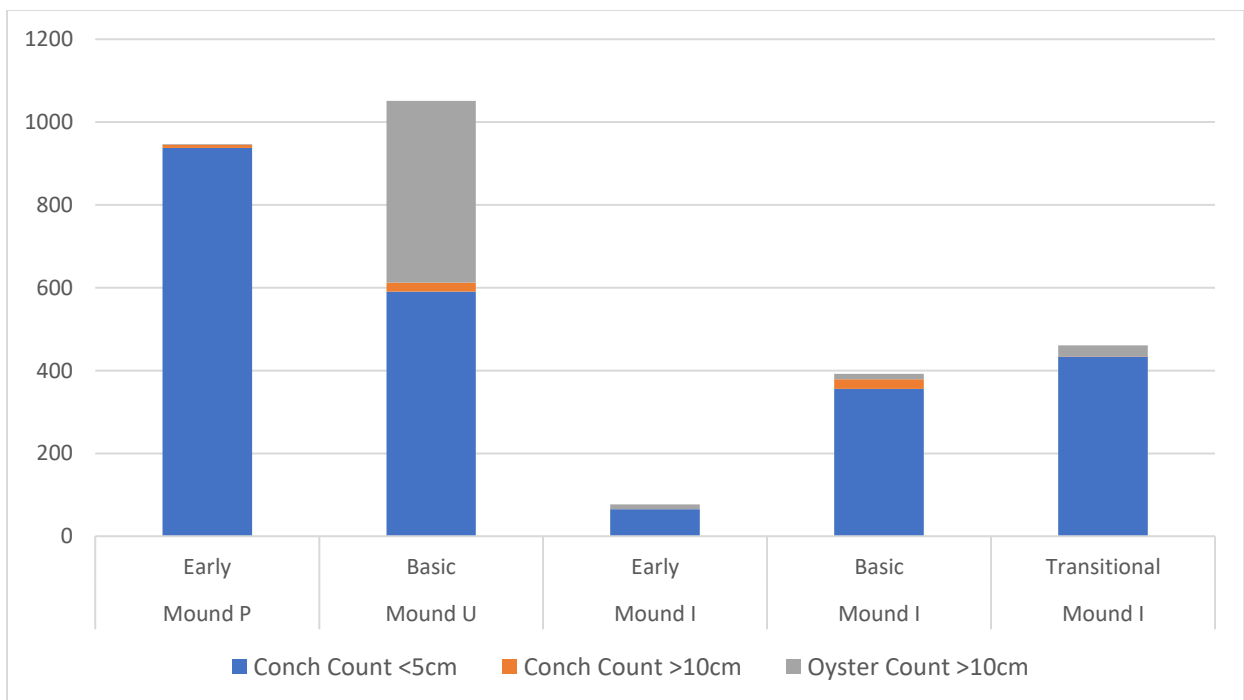


Figure 7-3 Counts of large (>10cm) and small (<5cm) conch and shell by mound and period.

Table 7-1 Counts and volumes of large (>10cm) and small (<5cm) conch and shell by mound and period.

		Conch Count <5cm	Average (#/L)	Conch Count >10cm	Average (#/L)	Oyster Count >10cm	Average (#/L)
Mound P	Early	938	49.4	7	0.4	2	0.1
Mound U	Basic	591	24.63	21	0.90	439	18.29
Mound I	Early	65	5.4	0	0	12	1
Mound I	Basic	356	23.7	23	1.5	13	0.9
Mound I	Transitional	434	28.9	1	0.07	26	1.7

Small conchs inhabit the shallow, near shore waters of the ocean. Large conchs move out to deeper waters. Early Selin deposits in Mound P demonstrate a reliance on small conch that could have been easily collected. The increase in large conch during the Basic Selin period in both Mounds I and U suggests that deep sea fishing, a more specialized activity, was more common at this time. This could be related to an apparent growth in the settlement, which resulted in an increased need to exploit new resources and more challenging environments as the number of people to feed grew.

A trend towards larger oyster over time, however, contrasts with this interpretation. Oysters typically grow about an inch (2.5 cm) per year, meaning the large oysters deposited in these contexts were probably over four years old. While other mounds suggest that the exploitation of older oyster beds was somewhat sporadic, Mound U deposits are indicative of a particularly targeted collection of larger oysters. The presence of oysters of this size suggests that the lagoon was not being pushed to its limits, as the oysters were being allowed to reach maturity before being harvested. The restriction of these larger specimens to Mound U is interesting, as it suggests there were differences in the strategies of resource collection across the site. Basic Selin period deposits from Mound I do not exhibit this same abundance of large oyster. Rather than reflecting increasing needs at the site, this discrepancy might suggest increasing competition

among individuals or groups not just for more resources but for more desirable ones. It could also represent unequal knowledge of or access to specific local resources, including those that would have arisen from a deliberate attempt at responsible resource management. The larger conch specimens could similarly represent trends that emphasized prestige associated with obtaining larger and more difficult to acquire shell, or it could mark a shift towards allowing conchs to mature more fully before harvesting in order to preserve local populations.

Evidence of possible attempts at sustainable resource management were also suggested by recovery of oyster specimens growing on ceramic materials within excavations (Figure 7-4). These were present throughout the site but were most abundant in the Early Selin period in Mound P. One possible explanation for this phenomenon is that inhabitants of Selin Farm were growing oyster using ceramic as a substrate material. A similar practice – the use of water reservoirs for the maintenance of live pianguas (a species of bivalve, *Anadara tuberculosa*) – is mentioned as a possibility for a circular structure made of ceramic, shell, and clay at the site of La Malla in the central Pacific coast of Costa Rica at around this same time (Corrales Ulloa and Quintanilla Jimenez 1996:103, Figure 5.6). If confirmed by future investigations at the site, this could represent the first archaeologically documented practice of this type of resource management in Central America.



Figure 7-4 Examples of oyster shells growing on ceramic sherds from Mound P.

7.4 Modified shell and bone

The abundance of modified bone by mound is presented in Figure 7-5. There are clear differences across space and time. Mound I demonstrates a pattern that we might expect if individual ornamentation becomes more important over time. This could correspond to individuals seeking attention or power in feasting settings, using ornamentation as a form of prestige item to set themselves apart. The relative lack of modified bone and shell in Mound U, where other data point to ostentatious displays of consumption, is unexpected and cannot be easily explained except to postulate that perhaps these other displays were emphasized instead (see pottery wastage data as evidence for status display in Chapter 11). The relative abundance of worked bone and shell in Mound P during the Early Selin is also remarkable, especially at this early time (Figures 7-6 and 7-7). Prestige based on hunting ability may explain why members of an egalitarian society would make and use modified bone to this extent. Perhaps over time other types of status markers, particularly ones that were less readily accessible to all segments of

society, became more important than bone and shell beads. There is some evidence for this trend within the lithic data presented in Chapter 8.

As stated above, bone and shell ornaments may also inform on gendered participation in feasting events. If we rely on historically documented practices among the Pech, the abundance of shell ornaments, especially in Mound P (Figure 7-8), may provide a clear signal of the participation of women in disposal practices in this setting. While women’s labor is well-documented regarding the preparation and production of food related to feasting in the past and present, their visibility in consumption and discard events in the archaeological record is not often as clear. This might be interpreted as representing exclusion from those practices. Here, however, it appears that women were involved, if unevenly across space and time, in these facets of feasting events at Selin Farm. The abundance of shell beads in Mound P may be tied to socially elevated females having played a larger role in this feast than in others at the site.

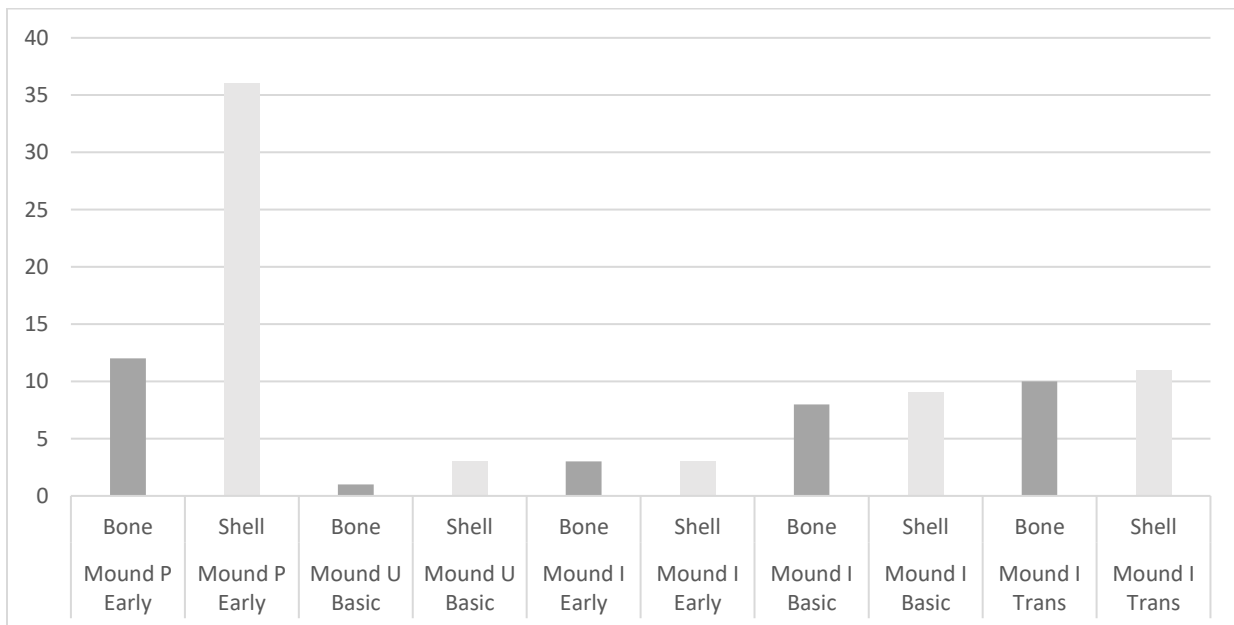


Figure 7-5 Counts of modified shell and bone by mound and period.



Figure 7-6 Pendant carved out of a peccary canine (Mound P, Operation 03, Lot 06).



Figure 7-7 Pendants carved out of shell (Mound P).



Figure 7-8 Beads fashioned from a variety of shell species (Mound P).

In addition to items of personal prestige and status, bone and shell implements that relate to ritual and ceremonial activities more broadly were also encountered. These ranged across contexts (see Appendix C). Mound P included a bone whistle (Figure 7-9), a form still made and used by the Pech during ceremonies (Conzemius 1927). Mound U, with the lowest number of modified bone and shell implements overall, demonstrated the greatest variety in ritual items made from shell, which included an axe, a cup, and a mask (Figure 7-10). Mound I contained no identifiable ritual items made from shell or bone, although it is difficult to distinguish between prestige items generally and ritually important items given that there was almost certainly some overlap in how these items were used and perceived. The paucity of ritual items made from these materials in Mound I is also explained by an emphasis on other materials used to make ritual

items that were present in this setting and not in others (i.e., ceramic whistles, incense burners, and obsidian blades).

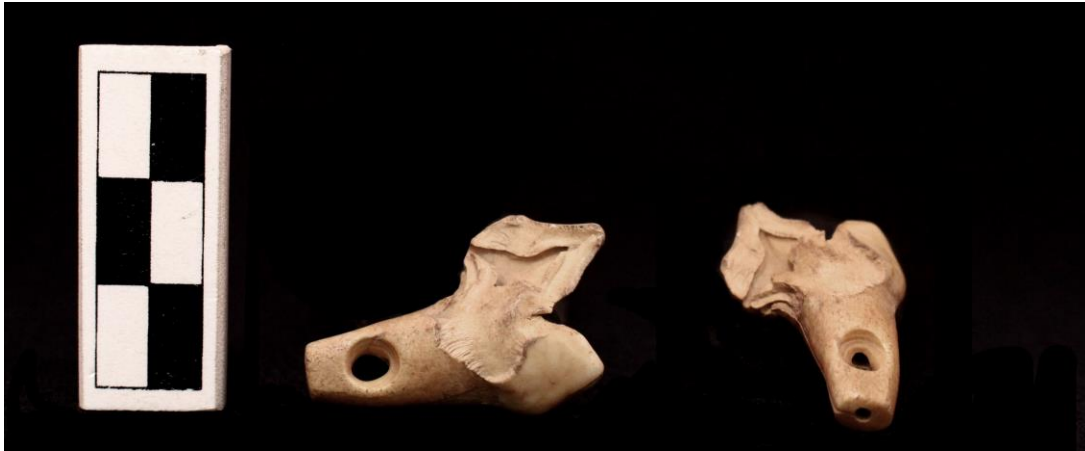


Figure 7-9 Whistle carved out of a jaguar or puma molar (Mound P, Operation 03, Lot 11)



Figure 7-10 Conch shell carved into a mask recovered from Mound U.

7.5 Summary

The overall abundance of faunal remains in the excavated deposits and their rapid deposition and exceptional preservation supports the interpretation of the mounds as feasting middens. Furthermore, the faunal data suggest that the quantity of food resources eaten in feasting events at Selin Farm would have supported large group sizes and required considerable labor mobilization, likely beyond the household level, particularly for events related to Mound I. Differences in the size of specimens within individual species suggest that there were differences in the environments being exploited and the size class of specimens recovered over time and space. These differences are suggestive of differential access to, knowledge of, or ability to acquire local resources that are likely reflective of displays of prestige or status differences in the past. These reflect a general trend towards increasing competition during the Basic Selin (AD 600-800) as population at the site grew. The large size of these specimens also suggest that some effort at sustainable management was employed in the past to counter increasing population densities in the region towards the later phases of occupation at the site.

Modified bone and shell provided evidence of differences in the use of bone and shell beads at the site that also point to differences in the use of these items as status markers over space and time. These items were most abundant during the earliest phase of occupation, when populations in the region demonstrate egalitarian organization. The possibility of the detection of gendered participation in disposal practices based on bone and shell jewelry was introduced here, with evidence that women may have been most involved in feasts during the Early Selin (AD 300-600). Bone and shell implements used for ritual, although scarce, also point to differences in the forms and materials of ritual paraphernalia over space and time at the site. Bone and shell implements seem to have been missing in Mound I, likely representing a preference for other

materials for ritual items in this setting. This difference in use of materials may be tied to an emphasis on more exclusive production and use of ritual items that relied on materials that had to be imported (i.e., obsidian), as discussed in the following chapter.

Although systematic identification is ongoing (Elvir 2019; Elvir and Goodwin 2018; Elvir et al. 2018), over 70 species of mollusk have been identified to date in our assemblage, with species from mangrove, estuary, intertidal, freshwater, ocean, and terrestrial environments. Presence of deep-sea dwelling species attest to the skilled boating and diving skills of these populations. The exploitation of the diverse environments available to Selin Farm residents was a lasting trend evidenced by our data, ongoing research, and that of previous zooarchaeological studies of the site (Healy 1983). Future identification of vertebrate and invertebrate species beyond oyster and conch, combined with isotopic analyses of these remains, should shed light on the seasonal use of resources, which would help address questions about the relative timing of layers and deposits within and between mounds.

Identification of vertebrate remains recovered during the 2016 excavations is also ongoing. We found, as did Healy (1983), a persistence in the use of particular resources – namely manatee, deer, peccary, armadillo, sea turtles, agouti, crocodile, and iguana (Reeder-Myers et al. 2019). Presence of remains from diverse large terrestrial and marine resources (e.g., jaguar, deer, peccary, manatee, shark) further support the interpretation of these contexts as feasting refuse. These are animals that require considerable skill and planning to hunt, process, transport, and prepare. They were not likely everyday foods. Preliminary analyses suggest that terrestrial mammals declined in relative importance over time, as emphasis shifted to marine resources, particularly to fish (Atlantic Tarpon *Megalops atlanticus*, Jacks *Caranx* sp., and Moonfish *Selene* sp.) during the Transitional Selin period. Our data also suggest the importance

of aquatic or coastal birds (e.g., Great Blue Herons, Egrets, Cormorants) to the inhabitants of the site. In the future, expanded zooarchaeological analyses will help elucidate other aspects of feasting and competition in the past and, given the exceptional preservation of bone at Selin Farm, should serve as an outstanding source of data complementary to the present research.

CHAPTER 8 :

LITHIC DATA

This chapter presents data on the lithic assemblages from excavations at Selin Farm. Lithic data provide information on the competitive components of feasts through the distribution of different raw materials and ornaments as well as different food types. These data are also useful in tracing influences from the north and south in the local foodways (i.e., maize and manioc), as well as demonstrating actual exchange with other regions through the presence of raw materials and forms that reflect shared beliefs and practices with groups to the north and south.

Fire cracked rock (FCR) is tied to the use of rocks for cooking, which allows us to evaluate food preparation practices. Densities and average sizes are presented for fire cracked rock (FCR) as a measure of the intensity and duration of use of this technology, which allows for comparison of cooking practices across contexts. FCR is particularly indicative of roasting or steaming when present in large quantities and in association with other indicators (e.g., burnt bone and shell).

Data from other lithic materials like groundstone and lithic flakes are also related to food preparation activities. Groundstone is primarily, although not exclusively, used for grinding maize. Groundstone would have played a central role in the nixtamalization process used to prepare specific forms of corn foods (i.e., tamales and tortillas) in Mesoamerica (Chapter 3).

Grater flakes, often made from a variety of materials ranging from limestone to quartzite or obsidian, are a necessary tool for processing manioc for food consumption. Graters are ubiquitous in lower Central America and South America, where manioc is a dietary staple, although their multipurpose use is increasingly apparent (Chapter 3). Finally, the presence of other lithic material types (i.e., obsidian and greenstone), and in some cases their form, also provide data on material status markers as well as interregional networks and affiliations.

8.1 Lithic analysis methods

All lithic material larger than 1/8th inch in size was transported to the field laboratory for analysis. Indeterminate lithic materials and fire-cracked rocks smaller than 5 cm were weighed and reburied without further analysis, unless they were an identifiable tool. Other lithic materials were sorted according to type (fire-cracked rock, smoothed, or chipped/flaked) and size (<5cm, 5-10cm, 10-15 cm, and 15+ cm) and counted and weighed. Identifiable tools (e.g., beads, blades, manos, metates, grater flakes, smoothing stones) and rare or imported materials (e.g., obsidian, quartzite, pumice, greenstone) were also counted, measured, weighed, and photographed.

Fire-cracked rock (FCR) is stone that has been physically or chemically altered from exposure to heat by human action. It is identifiable due to its irregularly fractured surfaces, weakened structure, and color changes (Neubauer 2018:683). FCR is most often the result of the use of rocks for hot-rock cooking, either through stone boiling or dry-roasting in earth ovens or on rock griddles (Neubauer 2018:682). Rounded rocks with crystalline structures like granite and quartz are most common because of their suitability for withstanding high temperatures and retaining heat.

For the purposes of this study, changes in the use of FCR specifically can help trace how food was prepared (by roasting or steaming versus boiling, based on presence) and where use of earth ovens may have been most common, long-lived, or intensive (based on size and abundance). Size grade analysis allows for a way to quantify the abundance of FCR while also telling us about how intensively it was used.

While the relationship between cooking method and use-alteration can be complex, different sizes of FCR are generally representative of different thermal weathering process. As rocks are exposed to episodes of heating and cooling they become weaker and eventually fracture into smaller pieces. Therefore, the degree of fracture can be used to assess their use history (Neubauer 2018: 685-686). An abundance of large or unfractured FCR relative to small FCR should correlate with relatively limited reuse. In the case of specialized feasting refuse deposits this may point towards temporary use of large earth ovens. A high density of FCR together with burnt bone and shell would also provide supporting evidence of roasting in earth ovens.

8.2 Fire-cracked rock

Fire cracked rocks, both cores and spalls, were common throughout all excavations at Selin Farm. The presence of FCR in all excavated contexts demonstrates that heating was used to cook foods in feasting settings, either for roasting or boiling. The abundance of charcoal and evidence for direct-fire boiling using ceramic vessels given extensive sooting, combined with the smooth breakage patterns of the FCR fractures (Neubauer 2018:683) indicates hearth use and roasting were likely responsible for most of the FCR at the site. Deliberate disposal of large FCR suggests an effort to create refuse, rather than to conserve resources.

Size grade analysis and densities of FCR point to differences in the relative intensity and duration of the activities across contexts (Figure 8-1). The highest concentrations of FCR are associated with the smallest average size. This reflects a pattern of intensive use that is unique to Mound I across all phases of occupation. An abundance of burnt bone and shell was also noted in excavations in Mound I. Together, this suggests that large earth ovens were made, used, and disassembled as part of the feasting and disposal practices associated with Mound I. A lack of burnt bone from Mounds P and U suggests boiling was a more common practice in these settings. However, the ubiquity of large cooking jars with relatively unrestricted orifices, sooting, scraping, and residues that suggest animal resources were prepared in them (see following chapters) suggests that boiling took place in all contexts. We know from ethnographic work among the Pech that meat was sometimes roasted and boiled for preparation of a single dish (i.e., *chilero*), which reinforces the need to consider behavioral chains of meals and dishes. We cannot assume that differential preparation suggests multiple distinct or unrelated activities.

For this study, no attempt was made to distinguish between rock types or to record fracture type or use-alteration patterns in an effort to distinguish specific cooking methods, although this would likely be a productive avenue for future research. Future studies of FCR use-alteration could provide independent lines of evidence for examining food production, midden accumulation, and site formation (see Neubauer 2018). Additionally, the clay rich soils, nearby river bank, and other peripheral areas of the Selin Farm site are ideal for the construction of earth ovens. Due to their subterranean and often ephemeral nature, these features would be difficult to locate but could provide a wealth of information if located. As with FCR, earth ovens are increasingly being identified and reported on from sites throughout the region (e.g., Ciofalo et al. 2018).

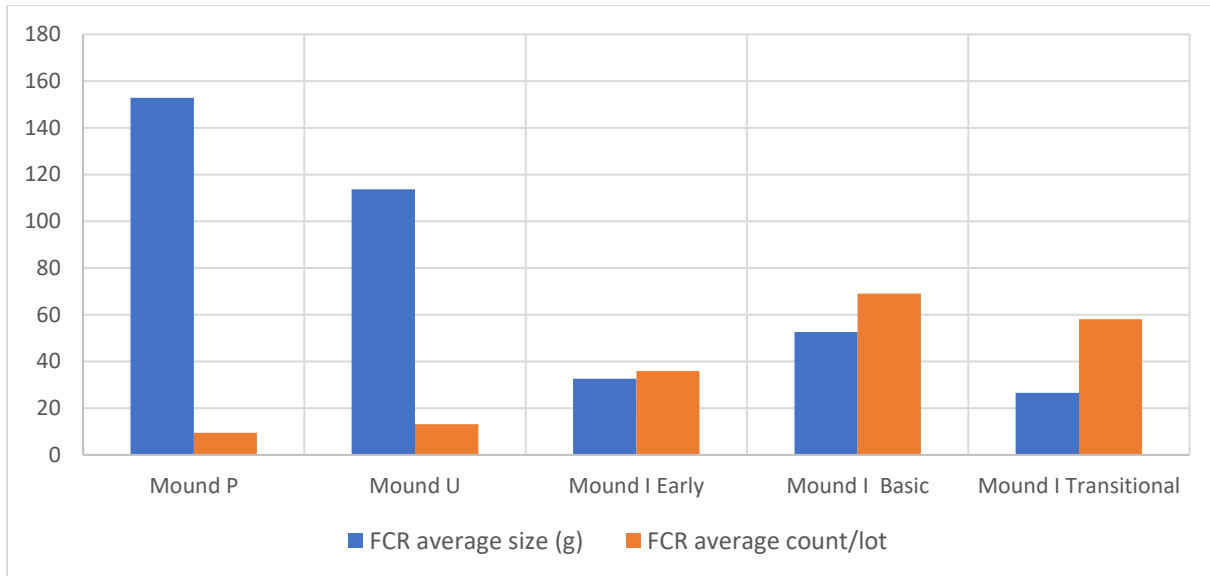


Figure 8-1 FCR weight and density by mound and period.

Vitrification of FCR suggests that some heating episodes reached very high temperatures, beyond what was likely needed for cooking food (Figure 8-2). Vitrification of FCR occurred in all contexts, but was most common in Mound U. This could have been the result of any number of human fire-related activities. One possibility is that the production of ceramics was taking place in this area, which would have required sustained high temperatures that may have resulted in this change in the rocks. There is some supporting evidence for this in the form of smoothing or polishing stones in this setting (see below) which is tied to an apparent increase in the number of people living and feasting at Selin Farm at this time.



Figure 8-2 FCR with vitrification of the surface recovered from Mound U.

8.3 Other lithics

Other lithic materials provide indirect evidence of preparation techniques related to specific resources (i.e., maize and manioc; Figure 8-3). The presence of groundstone (manos and metates) in midden mounds demonstrates that the refuse in these locations represents both preparation and consumption activities. This was true for all excavated contexts, including Mound O, although the lithics from that context were not quantified. While groundstone implements were found throughout our excavations, there is a clear difference between the frequency and density of these artifacts between Mound I and the other two mounds that suggests preparation activities were most intensive in and around Mound I, although this may have changed during the Transitional Selin (AD 800-1000), as discussed below. This reinforces the results of the size grade analysis of FCR.

There is no set threshold for the amount of groundstone material that should be found when maize agriculture is introduced, particularly considering that many other wild plants and staple crops, including manioc, require grinding for some forms of preparation. However, there should be a relative increase in groundstone implements over time as maize agriculture becomes more intensive. This increase should be more dramatic if the nixtamalization process is introduced, as it requires additional grinding. This is not the pattern seen at Selin Farm. Instead, there is a decrease in groundstone during the Transitional Selin, which is paired with a rise in the abundance of quartzite. Quartzite is used to make lithic grater flakes (Figure 8-4), which were likely used to process manioc and other plants for consumption. Lithic grater flakes were placed into wooden grater boards. The flakes are common in archaeological contexts in lower Central and South America and the grater boards are still used by indigenous and Afro-Caribbean coastal groups today (see DeBoer 1975; Chapter 3).

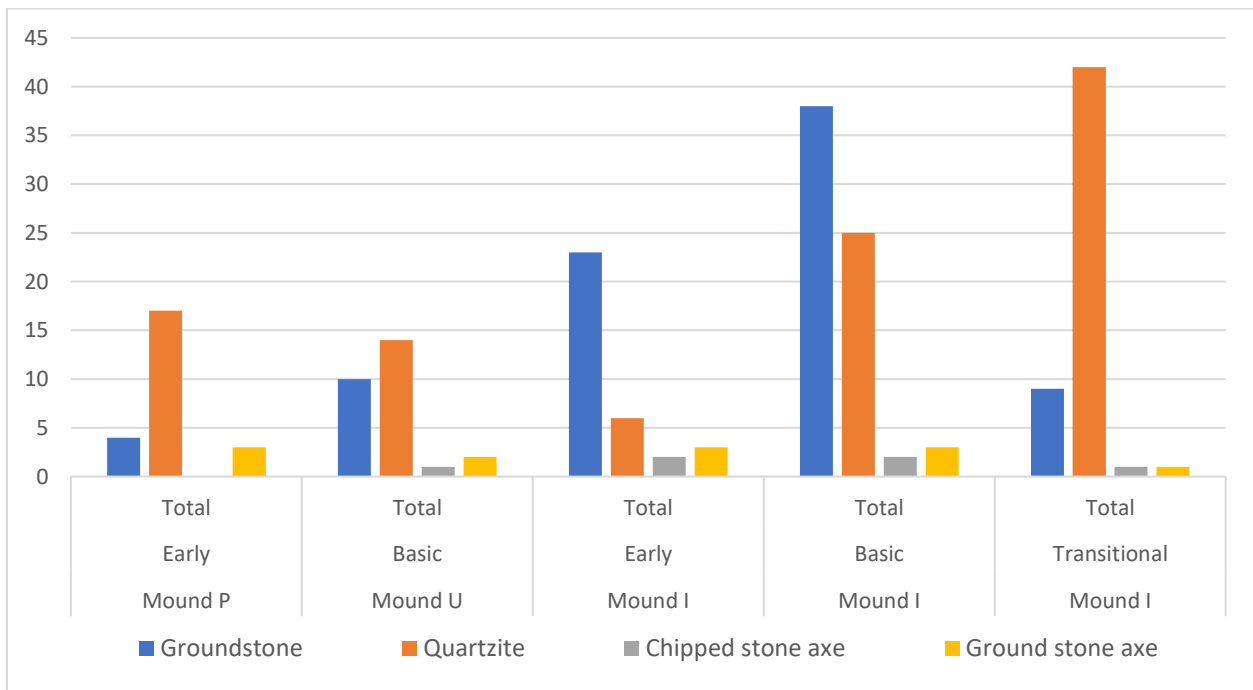


Figure 8-3 Counts of groundstone, quartzite, and axes by mound and period.



Figure 8-4 Example of sharpened quartzite flake recovered from Mound I.

Other chipped stone artifacts are fairly limited throughout the region. This may be explained by a preference for tools and projectile points made of wood, bone, and other perishable materials (Conzemius 1932). Chipped or sometimes ground stone axes are also common and are generally made from either basalt or granitic materials (Begley 1999). T-shaped axes are a particularly unique form of chipped basalt most often found in Cocal period contexts (Figure 8-5; Healy 1980:349). Our excavations recovered several of these, ranging from the Early to the Transitional Selin periods and present in all excavated contexts. These forms are known from sites in Nicaragua and Costa Rica, (Begley 1999:158; Healy 1984c:232) as well as along the Paulaya River, further east of Trujillo along the Caribbean coast of Honduras (Strong 1935:148, Plate 19). Begley (1999:160) suggests that these artifacts are closer in form to a hoe than an axe, which suggests the weeding of crops. He notes that this may indicate intensification of maize agriculture as row-cropping of corn necessitates weeding, whereas broadcast seeds and root crops require less maintenance. This seems like a reasonable association, given that the frequency of these tools increases as populations increase at the end of the Terminal

Classic/beginning of the Postclassic or period V/VI transition. In contrast to these regional trends, the slight decrease in chipped stone axes at Selin Farm during the Transitional Selin coincides with other evidence for a decrease, rather than increase, in maize agriculture at the site over time.



Figure 8-5 Fragment of a T-shaped stone axe recovered from Mound I.

Polishing stones were most common during the Basic Selin period (Figure 8-6) and their increase at this time may be related to a general intensification of pottery production at the site driven by growing populations as well as increased ritual demands, as discussed below. The function of pumice is unclear, but the rounded appearance of some samples in these deposits suggests they were used for abrasion— either for smoothing, shaping, or cleaning other objects. Examples do tend to appear more frequently in association with modified bone and shell and may have been tied to the crafting of beads and tools. The abundance of pumice in Mound I could indicate increasing specialization in the production of these implements and in the crafts that require such tools. Our excavations in Mound I recovered a spindle whorl in these deposits and Healy (1978a) reports a bone needle from his excavations into this mound.

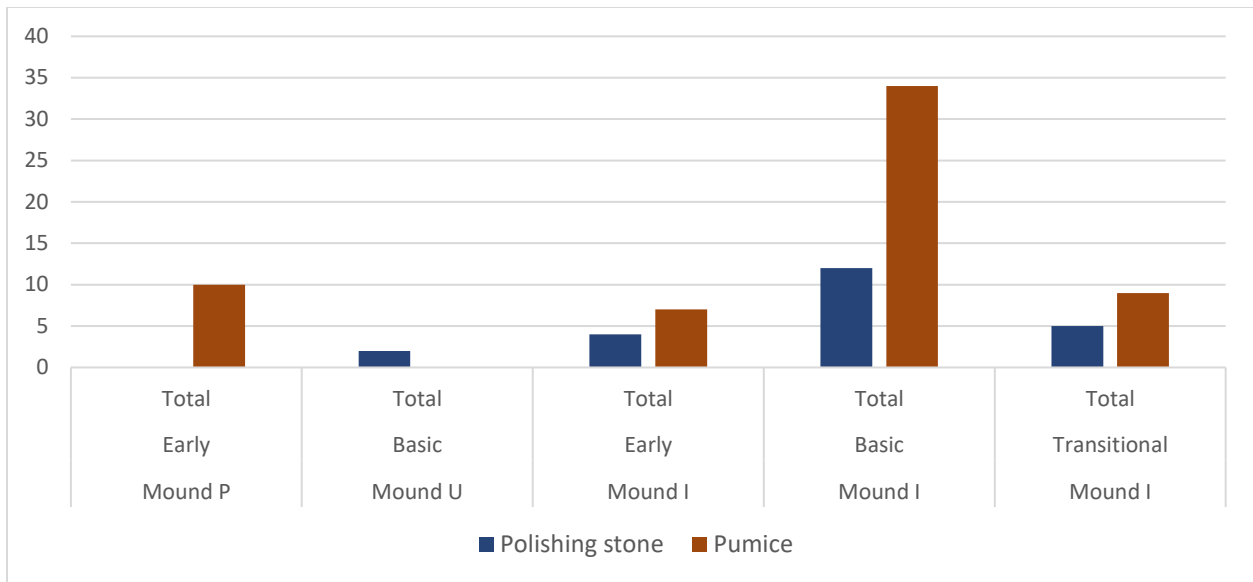


Figure 8-6 Counts of polishing stones and pumice by mound and period.

8.4 Imported materials

Lithic materials also provide information on displays of wealth and status, some of which rely on interregional exchange. Imported lithics contribute to understanding the timing and direction of affiliations to the north and south (e.g., obsidian from the north and greenstone from the south). Diversity in these materials and their form allow for the comparison of access to external trade networks among the people involved in the feasts at Selin Farm. Although imports are limited, intra-site differences and shifts over time in the lithics provide an additional line of evidence for examining changing external affiliations (Figure 8-7).

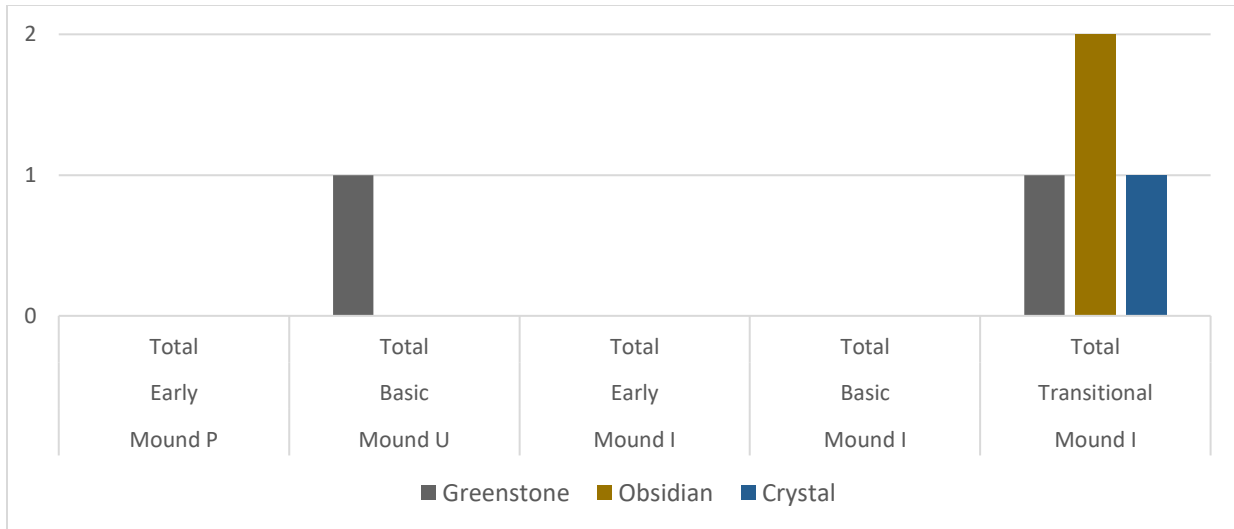


Figure 8-7 Summary of lithic materials recovered by mound and period.

Both the density and the variety of materials present in Mound I is greater than those of other mounds. Despite a small sample size, this pattern holds true for imported lithics. Most notably, Mound I is the only location where obsidian was found in excavation. These two small (~1cm in length) flakes were both found in Transitional Selin deposits (Figure 8-8). Similarly, Healy (1978a) recovered only two fragments of prismatic blades during his excavations at Selin Farm. The limited import of obsidian is common at lower Central American sites (Healy et al. 1996:279), which marks a clear distinction among these and Mesoamerican sites where obsidian is ubiquitous. Obsidian use appears to increase in the Cocal period, both along the coast (e.g., at Guadalupe, see Otto and Stroth 2018) and in the interior (e.g., Rio Claro, see Healy 1978b and Talgua Village, see Begley 1999:157). However, these patterns are irregular - during survey in the Culmi Valley, Begley (1999:157) only recovered 9 obsidian fragments (7 flakes, 2 prismatic blades) from 6 different sites (compared to 40 flakes at Talgua Village). Additionally, none of the obsidian recovered from Selin period sites has any cortex, while both cortex and debitage are more common in the Cocal period.

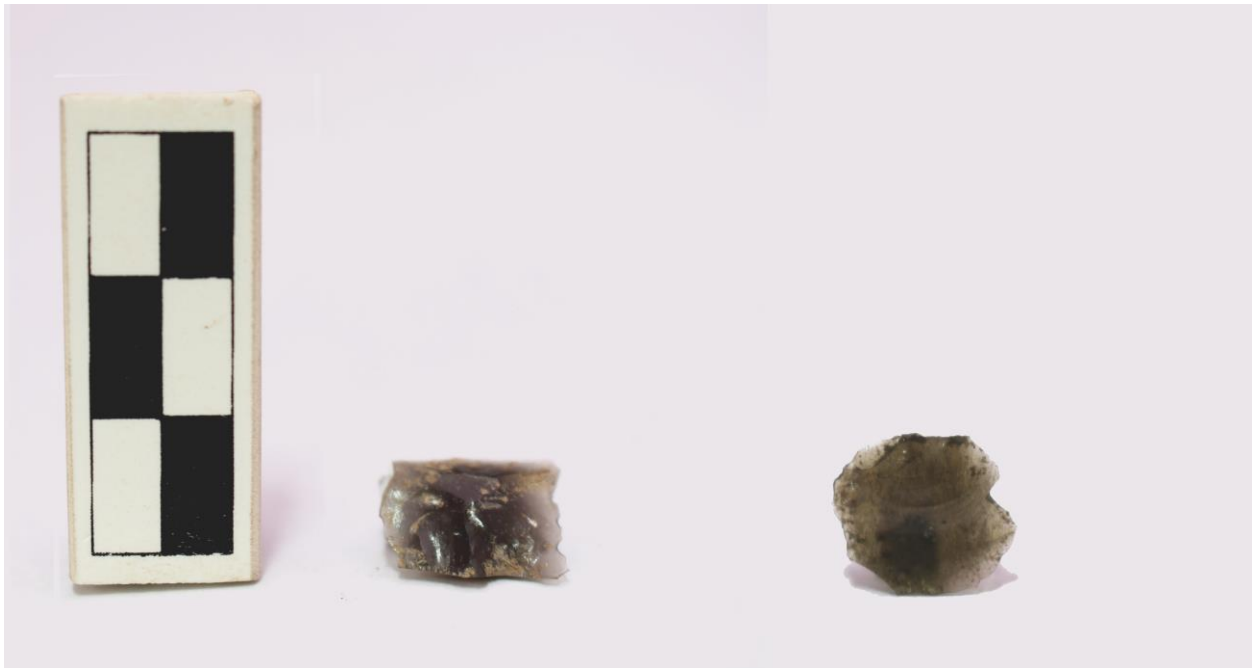


Figure 8-8 Obsidian flakes recovered from Mound I.

Existing studies of the limited obsidian recovered in this area (Healy et al. 1996) suggest that the primary sources used for obsidian shifted from the Selin period to the Cocal period. Selin period obsidian, despite the small sample, came from varied sources to the north and the south. Early Cocal period obsidian samples all came from the La Esperanza source in central-western Honduras. This suggests that exchange networks connecting the northeast to other regions were shifting at this time, in line with changes seen in other areas of southeastern Mesoamerica (i.e., Aimers 2007; Dixon 1992; Goodwin et al. 2020; Joyce 1986; Urban and Schortman 2004; Stockett 2010).

The addition of greenstone beads to the lithic assemblage during the Basic Selin period is notable in its timing as well as its occurrence in Mound U. Previously, the shift among northeastern groups towards the south, as understood through stylistic analyses of pottery, was believed to have taken place during the Transitional Selin (AD 800-1000) period. The evidence

for greenstone, particularly in the form of an axe-god bead (Figure 8-9), suggests strong ties to southern groups and hints that this shift may have taken place earlier than previously believed. The recovery of this bead in Mound U, where other artifacts (i.e., the beer skimmer discussed in Chapter 9) also point to strong southern ties, indicates that perhaps these connections, their strength and direction, varied by individual, household, or lineage. The bead itself would have been worn by a particular individual, however, it is deposited within communal feasting refuse rather than in a burial or another context associated with a specific household. This demonstrates that community standards for displays of wealth and status, and apparently affiliation, were still regulated during the Basic Selin (AD 600-800).



Figure 8-9 Greenstone bead recovered from Mound U.

8.5 Summary

Lithic data provide insights into variation in food preparation activities over space and time. FCR was common throughout all contexts, but was most abundant in Mound I. This

appears to be related to a greater emphasis on roasting animal resources in that setting relative to others. Large earth ovens were likely used to roast animals and mollusks as supported by the presence of burnt bone and shell in that context. Elsewhere at the site it seems that boiling was the more common form of preparation as bone is undamaged and FCR is less dense in other deposits. Differences in the preparation method of foods for feasting versus everyday meals are common, even if the ingredients used do not change, to produce variety in tastes. In ethnographic accounts from the Andes, there is evidence that steaming and roasting were the preferred methods of cooking for feasts, whereas boiling was common for everyday meals (see Chapter 3; Hastorf 2012).

Decreasing density of FCR during the Transitional Selin period points to the possibility that preparation and consumption activities were taking place in spatially and perhaps socially segmented locations, in contrast with earlier phases of occupation. This pattern is upheld within Mound O deposits and may represent increasing trends towards social differentiation in tasks related to the emergence of social inequality across the region at this time. Similar patterns are seen within the ceramic data, which is presented in the chapters that follow.

Groundstone is also most abundant in Mound I, although it is still relatively rare at the site and appears to drop off in density within these deposits during the Transitional Selin period. Together these trends suggest that maize processing through grinding at the site was minimal. A steady increase in groundstone would be expected with a more intensive use of maize, particularly if it were being nixtamalized. This is not the case at Selin Farm. In contrast, however, the abundance of quartzite increases over time, especially within Mound I deposits. I believe this is related to the increased use of this material for the processing of manioc on grater boards. This suggests that over time, manioc preparation was increasing while maize processing

was not. Again, these findings are in line with those presented for the ceramic data presented in the following chapters.

Likewise, there is increased evidence for more intensive pottery production at the site during the Basic Selin period from the lithic assemblage. This includes an abundance of vitrified FCR suggesting sustained high temperatures and polishing stones. Evidence from other classes of material, particularly pottery, suggests that ritual needs (including increased a desire for more abundant wastage materials to serve as a sign of status) may have driven some of this intensification. It seems that intensification of pottery and food production here might represent an example of the ritual mode of production that, even if temporary, likely had lasting impacts on local economies in this small-scale society (see Chapter 11; Spielmann 1998, 2002; Wells 2003, 2007).

Differences in the distribution of rare lithic materials also point to changes taking place at the site over time. During the Basic Selin period, greenstone is first found in Mound U, a location in which other evidence also points to southern ties to lower Central America. This is an earlier than documented shift in the expression of identity in northeast Honduras as understood through pottery style. By the Transitional Selin period, networks to the south were more established and greenstone was also present, however there is also evidence for the import of obsidian in Transitional Selin period contexts at Mound I only. That the distribution of this material is restricted to this setting suggests it was tied to the rituals taking place there. Its overall abundance during the following Cocal period (see Healy 1978b, 1984a, 1984b), however, suggests that Mound I and the communal feasting that took place there likely served as a conduit for introducing exotic materials into the community through socially acceptable means, as discussed below.

Future studies of lithic materials from the region could expand on several of the patterns identified here. More detailed analyses of FCR have the potential to contribute to understanding more nuanced differences in food preparation styles. Groundstone and grater flakes would be ideal implements to test for direct association with food resources using microbotanical (i.e., starch grain and phytolith) analyses. Finally, the study of imported lithic materials, if larger samples were analyzed, could fill gaps in our understanding of the structure of interregional exchange networks.

CHAPTER 9 :

CERAMIC DATA

One of the central goals of the current study was to provide contextual information for the pottery of northeastern Honduras. Accordingly, the present chapter contains the bulk of the data presented for this study. For the present study, pottery style and form serve as the most significant indicator of connections with groups to the north and the south. Ceramic data are also used to address the general timing and nature of feasting at Selin Farm, with several of the analyses contributing to understandings of both group size and level of sociopolitical competition.

Type-varieties and functional groups were used as the central units for most analyses performed for this study. Type-varieties were used first to assess the relative timing of deposits (Early, Basic, or Transitional Selin period). They also served as a way to categorize and characterize connections to and comparisons with types and varieties beyond Selin Farm and the northeast region. Distribution of types across the site helped elucidate how styles and forms changed and where these innovations first occurred.

Functional categories were used to look at differences and similarities in the composition of assemblages across the excavated contexts. Functional groups represent an organization of types and forms into categories that employ observations about use to tie them to inferred functional categories related to food production, storage, serving, or ritual. Most of the present

analyses focus on assessing differences in food preparation and consumption practices through comparisons of cooking and serving vessels across space and time. Prestige and ritual items are also considered as an important source of information on internal competition and heterogeneity among the people living and feasting at Selin Farm.

Importantly, these categories are not intended to directly reflect emic understandings of use or identity expression, although some features may have been explicitly understood as such and some overlap in categories is likely. However, as Rice (2015:245) points out,

“Pots are categorized by their users by size, age, contents, function, and location of use – the kinds of information the archaeologist is unlikely to have. In addition, societal heterogeneity is reflected in the heterogeneity of its categorizations; pottery vessel may be classified (named) differently depending on the age, sex, status, and occupation of the classifier...In sum, although it is certainly not *undesirable* to achieve some correspondence between eased and folk classification so archaeological pottery...this should not be the only criterion for assessing the overall utility of a classificatory system” (Rice 2015:245).

This underlies the fact that the most important approach in understanding pottery use in the past is the complete context of vessels themselves – the relationships among pots, pottery and other classes of artifacts, and between pots and archaeological features and deposits (Orton and Hughes 2013:261). The addition of context, association, and use to our current understandings of northeastern pottery is the main goal of the present study.

9.1 Ceramic analysis methods

All ceramic materials larger than 1/8th inch were collected. Ceramics were presorted in the field into two major categories: rims and diagnostic sherds, and undiagnostic body sherds. In the field laboratory, ceramics were rinsed and lightly scrubbed with soft bristle brushes unless

they were structurally fragile, painted, or had visible charring or residues. Undiagnostic body sherds smaller than 5 cm in diameter were weighed and their volume recorded before being reburied. Body sherds were further sorted into size classes using templates (<5cm, 5-10cm, 10-15 cm, and 15+ cm), counted, weighed, and volumes recorded. All body sherds larger than 5 cm were retained for future analyses. The results of field laboratory analysis of these body sherds are presented in Chapters 5-6. All rims and diagnostic materials were transported to the Laboratory of Archaeological Materials of the Department of Anthropology at UNAH in Tegucigalpa for the analyses detailed in this chapter.

9.1.1 Quantification

Quantification of materials was performed in several ways, in addition to standard counts and weights, in an effort to reconcile the disconnect between the use of whole vessels in the past and the recovery of fragmented pottery in archaeological contexts (i.e., the “unit of observation problem”, Rice 2015:260). Counts alone are not reliable measures of the proportion of types for comparison across assemblages because brokenness varies across types and contexts. Weight, conversely, favors heavier types within a single assemblage, but is more suited to comparison across assemblages as the relative proportions of types will be biased in the same ways across contexts (Orton and Hughes 2013:206-207). Because of the unique features of the assemblages analyzed for this study, namely the stark contrast between coarse and fine wares and the standardized size and form of the majority of the coarse wares (e.g., large jars) and their known estimated weight given the presence of whole vessels, this study uses both a standardized weight approach and an estimated vessel-equivalent based on the rim (rim-EVE) to quantify food

preparation wares, which made up the vast majority of the assemblage (see below; Orton and Hughes 2013:208-210).

To account for differences in the lifespans of different vessels, the proportions of various types, rather than the counts, were used to compare assemblage composition across lots and deposits (Orton and Hughes 2013:203). The representation of functional classes and relative proportions of pottery types in assemblages are likely to have stabilized over the time span represented in the deposits analyzed by this study when they are grouped by period (i.e., Early, Basic, and Transitional Selin periods; see David 1972; Mills 1989). Similarly, the density of sherds was used to account for differences in the volume of materials excavated across contexts (Hendon 2003:223).

9.1.2 Type-variety analysis

Type-varieties were the primary units of analysis for this study. They served first to help identify the relative timing of deposits (Early, Basic, or Transitional Selin period) as well as to make connections to and comparisons with types and varieties beyond Selin Farm and the northeast region into central and northwestern Honduras. The stratigraphic distribution of type-varieties also helped validate interpretations of depositional sequences and timing based on excavation data. Distribution of types across the site helped elucidate how styles and forms changed and where and when these innovations occurred.

Selin Farm serves as the type site for the Selin period for the entire northeastern region, meaning that prior classificatory systems were based primarily on materials from this site (see Chapter 5; Epstein 1957; Healy 1993). As such, efforts were made to use existing type-varieties, rather than create entirely new ones. Appendix A has detailed descriptions of these types as well

as information about where they are found both within previously excavated contexts at Selin Farm, mostly based on work by Jeremiah Epstein (1957) and Paul Healy (1993), and at other areas or sites (i.e., Begley 1999; Winemiller and Ochoa-Winemiller 2009).

The primary purpose of type-variety analyses for the present study was to assess the relative timing of excavated contexts. Table 9-1 provides a summary of the types and varieties employed in these analyses. All typed materials were included in the analyses, but only a few significant types and varieties are discussed in detail in this chapter.

Table 9-1 Updated chronological distribution of type-varieties at the Selin Farm site.

<i>Type-Variety</i>	<i>Designation</i>	Early Selin (AD 300- 600)	Basic Selin (AD 600- 800)	Transitional Selin (AD 800-1000)
Selin Manatee Lug	SM	X	X	X
Maranonez Orange	MO	X	X	X
Guaimoreto Painted Raised Band	GPRB	X		
Tegucigalpa Punctated Raised Band	TGPRB	X		
Bonito Incised Painted Band	BOI	X		
Santa Fe Red on Orange	SFRO	X		
Dos Quebradas Polychrome	DOS	X		
Chapagua Red Rimmed	CRR	X	X	
Corocito Chalky	CC		X	
Jericho Grooved	JG		X	
Orion Orange Incised	OO	X	X	
San Marcos Polychrome: San Marcos	SMP:SM	X	X	X
San Marcos Polychrome: Moradel	SMP:M	X	X	X
Rio Aguan Incised Scroll	RA		X	
Cristales Incised	CI			X
San Antonio Carved	SAC			X
Betulia Reed Impressed and Gouged	BET			X
Laguna Incensario	LI			X
Trujillo Coarse	TC	X	X	X

Variations from the existing type-variety classifications, including new forms, motifs, and other observations from my analyses, were added where relevant in the data that follow. Notes on sub-regional variations and inter-regional similarities and ties are also included. Several types are given more in-depth discussions where my analyses provided considerable new information about the existing type or where large enough samples were acquired for new varieties to be identified.

Fitting new finds into a somewhat rigid system and addressing distinct questions not related directly to chronological/culture area concerns was particularly challenging, but the use of wares as units of analysis and modal analyses of attributes that cross-cut existing type-varieties allowed me to circumvent some of these issues while also retaining the organizational and comparative benefits of existing classifications.

Ware is generally an informal classification used in Mesoamerica for a unit of analysis that is broader than the type-variety system. Wares are defined through a broad range of attributes ranging from functional to decorative to form, but are all related to composition, manufacturing technology, or surface treatment. These are monothetic paradigmatic classes (as opposed to polythetic types), meaning one or more attributes are both necessary and sufficient for membership in a class, and they correspond to procedural modes in analytical classifications (see below; Rice 2015:230). This study uses wares primarily to distinguish between pottery vessels based on paste composition or texture (i.e., coarse ware versus fine ware). The use of wares allows me to discuss classes of artifacts that are not necessarily grouped within the type-variety system or easily integrated into the existing hierarchies of units. Higher-order units within the type-variety system – like groups and wares – can be more formally defined, but because lower-order classifications tend to privilege surface treatment attributes over others, it is

difficult to incorporate attributes related to paste composition and manufacturing technology into existing classification systems (Rice 2015:231).

Modal analyses, in ways similar to wares, allow for groupings of artifacts independent of the type-variety system on the basis of attributes that may or may not be subsumed within a single type. Modes refer to attributes that reflect the standards or customs of a community for the manufacture and use of products. Modal analyses are sometimes said to reflect emic classifications of pottery and the rules governing the behavior of potters in the past (Rouse 1960:313; Taylor 1983:129-30), although this is not a requirement of this type of analysis. Modes can be defined as either conceptual or procedural. Conceptual modes relate to style and form while procedural modes are concerned with manufacture and composition (Rice 2015:221). The present study was concerned with both categories of modes. Specifically, data were gathered on design technique/execution (incising, punctate, modeling, paint, etc.) and design motifs, as well as manufacturing technique, where discernable (Rice 2015; Rye 1981; Shepard 1954). Conceptual modes were grouped according to the nature of affiliations represented by each (e.g., incising and punctate as a lower Central American tradition; see table). Modal categories are necessarily simplified representations of patterns in pottery traditions used here as a tool for assessing broad similarities that may or may not reflect participation in shared communities of practice. They are not meant to be rigid categories but simply provide a model for organizing, comparing, and interpreting trends in the data.

The combination of type-variety categories, wares, and modes allowed me the flexibility needed to make both broad (type or ware level) and specific (attribute level) comparisons with traditions from neighboring areas that were necessary to assess the complex interplay of external affiliations with local traditions.

9.1.3 Functional analysis

Functional group categories and their relative percentages were used to make comparisons about assemblage composition across contexts and over time to understand the nature of foodways and feasting at the site, as well as to compare these with existing classifications from nearby sites and regions (e.g., Hendon 2003), particularly those that classify assemblages from feasting contexts (e.g., Joyce 2017). These types of comparisons will become increasingly relevant as bodies of data from more sites and contexts from northeast and central Honduras and other areas of southeastern Mesoamerica become available.

Functional group categories were constructed using a range of characteristics recorded in the analyses documented above including surface treatment, form, size, paste texture, appendages, manufacturing process, as well as associations among vessels and other artifacts in excavations (Rice 2015:411-432). Interpreting vessel function, here considered synonymous with use (similar to “technofunction” *sensu* Skibo 1992), tends to rely heavily on form and physical properties (i.e., mechanical performance characteristics, Braun 1983) that suggest specific functional requirements, though these interpretations can be supported by use-alteration analyses. Use-alteration analysis relies primarily on sooting/carbonization, attrition, scraping or pitting, and residues (Hally 1983; Skibo 1992, 2013). Use-alteration was recorded throughout all analyses listed above in relation to specific types, wares, modes, or forms. Whole and nearly whole vessels were especially useful for this purpose, as patterns in these attributes are difficult to assess based on fragmentary vessels (e.g., sooting location).

Functional categories defined for the present study relied heavily on form (see below) and included cooking/processing (primarily coarse jars and bowls, as well as *comales* and some *tecomates*), storage (necked jars), serving (i.e., transfer over short distances; plates, dishes, fine

ware bowls and jars, and vases), and ritual items (primarily censers and ceramic whistles, pendants. etc.). Because of the nature of these deposits, a utilitarian/domestic versus ceremonial distinction was not useful; rather, functional groups and wares (coarse versus fine) served as the primary units of analysis above the level of type-varieties (see Hendon 2003:214 for a similar strategy).

9.1.4 Morphological analysis

Changes in form and size were addressed primarily within specific type-varieties or within functional categories to help make more meaningful comparisons among similar classes of pottery (i.e., comparing the size of coarse ware cooking jars with other coarse ware cooking jars). These changes help elucidate shifts in form likely related to function and/or the types of dishes being served. Changes in size speak to how people were eating and/or the number of people eating together.

This study relied on established classes of forms, rather than on creating independent classifications (Rice 2015:235-240; Sabloff 1975:23), with some modifications. Five categories of vessels are traditionally found in the region: plate, dish, bowl, jar, and vase. Plates and dishes are shallow with unrestricted openings. *Comales* or griddles are used for roasting and were added as a category separate from plate on the basis of paste ware (coarse, flat forms) because the two categories represent very different functional uses. Dish was a category that was not recognized in previous type-variety analyses but was added here based on depth profile and wall angle, along with the presence of supports. Bowls were deeper, taller, and without supports. Bowls with pronounced restriction (essentially neckless jars) were given a separate category of *tecomate*.

Coarse jar forms were classified as restricted (necked) and unrestricted (no neck but everted rim), whereas fine wares represented a wider variety of morphological categories.

Assessment of form began with the identification of the vessel portion (i.e., rim, body, etc.) followed by associated form. Identification of form relied on previously described forms and associated types and modes (i.e., supports). New forms, if they were common, were added to existing type-variety classifications (see below; Appendix A). Rare or unique forms that implied specific identifiable functions or that were complete enough to be described in detail are presented here as well.

Variations in size were measured using rim diameters as a proxy for vessel size. Diameters were recorded for all rim sherds using a standardized template and procedures outlined in Rice (2015:238). Only rims with 5% or more preserved were included in analyses, as measurements of smaller fragments are less accurate. Distribution of size (using measures of rim diameters) within particular type-varieties or forms were also used to demonstrate multimodality within the data, a typical indicator of feasting assemblages caused by the use of a variety of vessels – some from regular domestic assemblages and others made especially for feasting (Clarke 2001:158-160). Additionally, very large vessels (generally above 40cm in diameter but varying relative to modes by form), were used to assess the level of investment in feasting-appropriate vessels over time and space at the site. This reflects ethnographic patterns in which households that are not regularly involved in feasting do not produce or acquire large vessels for feasting but rather borrow the vessels required to meet these needs (Clarke 2001:160).

9.2 Type-variety data

Limited data from the type-variety analyses are presented here. More detailed analyses are reported in Appendix A. First, newly defined types and varieties are presented and their significance and relationships to existing types are discussed. This is followed by an examination of significant patterns in the distribution of type-varieties that point to variations in pottery use across space and time.

9.2.1 San Marcos Polychrome type

The San Marcos Polychrome (SMP) type has clear connections to other painted pottery traditions of Honduras (Figure 4-5; Joyce 2018). San Marcos was first known as Polychrome II (Strong 1935) and then as the San Marcos Type of the Ulua Bold Geometric Style (Strong 1948). The designation of the SMP type as part of the Bold Geometric group by early researchers (e.g., Strong et al. 1938) underscores its clear ties to other painted pottery of Honduras. In addition to the SMP, the Bold Geometric group is present throughout central Honduras as the Sulaco and Chichicaste polychromes (Beaudry-Corbett et al. 1997; Hirth et al. 1993). It also incorporates motifs that are shared with Ulua Polychrome types to the west (especially large braids, mats, stepped fret, and terraces; Joyce 2018:245). Together, these pottery types represent the communities and constellations of practice that form the basis of Honduran painted pottery traditions (see Joyce 2018).

Our sample included only simple bowls (which I have defined as a new variety, SMP: Moradel, see below), flared walled bowls (sometimes dishes according to a strict definition, see Joyce 2018: Figure 74), and Epstein's (1957:232) "monkey handled jar". This type appears simultaneously in all forms. Outside of the new SMP: Moradel variety, within the SMP: San

Marcos variety, the jar is the most common form in our assemblage. These are large jars with flared rims and wide, unrestricted orifices. The jars have strap handles with modeled lugs, most commonly in the form of a manatee head. Joyce (2018:238) noted that large jars and dishes are more common in the eastern painted pottery traditions, whereas northwestern traditions such as the Ulua Polychrome emphasize bowls, small jars, and cylinder vases. Our sample generally upheld this statement, although the SMP: Moradel variety bowl form and its abundance and ubiquity at the site adds a caveat that may have implications for inferred use. We recovered 213 sherds that represent this type, just under 4% of the analyzed sample.

The first occurrence of the SMP in our excavations comes from deposits dating to the Early Selin, with an associated radiocarbon date of *cal* AD 427-575 ($p = 0.95$, Calibrated at 2σ with the program CALIB 7.1 using IntCal 2013 [Reimer et al. 2013; Stuiver and Reimer 1993]) at the base of Mound I and bracketed dates of *cal* AD 427-603 ($p = 0.95$, Calibrated at 2σ with the program CALIB 7.1 using IntCal 2013 [Reimer et al. 2013; Stuiver and Reimer 1993]) in Mound P. The early date for SMP places northeastern painted pottery among the earliest documented Honduran painted pottery traditions, prior to even the more well-known Ulua polychromes that date to after AD 600 (see Joyce 2018). Continued production and use of SMP at Selin Farm after AD 900 also suggests that it was one of the longest lived of these traditions, as discussed below.

SMP jars, dishes, and bowls were made during all phases of occupation and show up in all contexts, although there is some variation in their distribution (see below). Within the jar forms, there is a clear progression over time between the Early and Basic Selin from intricately decorated smaller, thinner walled forms made from a fine paste (Figure 9-1) to larger, thicker walled and coarser jars with less elaborate designs (Figure 9-2). Both the timing of the appearance of SMP and of this shift in form and size are significant. The shift in form and size of

our SMP examples at around AD 600 also suggest that uses of this painted pottery were changing prior to the documented shifts in style in the northeast that took place at around AD 800 (Healy 1984a, 1984b, 1993). Like other innovations in pottery at the site, the setting for this shift appears to have been in Mound I, the significance of which is discussed in further detail below in this chapter's section on the distribution of type-varieties.



Figure 9-1 SMP jar recovered from Mound P (Operation 03) and dated to the Early Selin.



Figure 9-2 Complete SMP jar recovered from Mound U (Operation 02) and dated to the Basic Selin.

9.2.1.1 San Marcos Polychrome: Moradel variety

The Moradel variety of the SMP (hereafter SMP: M), was defined primarily on its distinct and consistent bowl form. We encountered 293 examples of this variety, 234 of which included rim fragments. Healy (1978a: Figure 7, b) identified an example of this variety as San

Marcos Delgado Polychrome, but does not elaborate on the distinction of what would be a new type or variety.

SMP: M was the most common serving ware in our excavations, making up just under 5% of the total sample of ceramics analyzed. It is a simple hemispherical bowl with incurving rims (Figure 9-3). Some constriction is pronounced enough to qualify some examples as *tecomates*, but these were rare (n=9). Diameters range from 8-45cm, with an average of 25 cm and most falling between 20-30 cm. Vessel height was 8-15 cm in the examples that were complete enough to measure.

Surfaces are always slipped and well smoothed (Figure 9-4). Decoration consistently features a repeating swirl design just below the rim on the vessel exterior. This is usually set above one to three parallel lines that run the course of the vessel at the base/body point of inflection. Paint is either black or red, or sometimes both. Design execution is variable in demonstration of skill. Decoration in the form of geometric designs is sometimes present on the exterior below the base/body break and shares common motifs with the SMP:SM variety. Bases are concave. The form is similar to that of the GPRB type of the Early Selin (see Appendix A).

Distribution at the site was widespread, although the Early Selin deposits of Mound P only contained a single example. From the Basic Selin period through the Transitional Selin, the SMP:Moradel variety was the most common serving ware at the site. Distinguishing between the SMP: San Marcos and SMP: Moradel varieties has revealed differences in assemblage composition at Selin Farm that would have otherwise been masked, as discussed below.



Figure 9-3 Nearly complete large SMP:M bowl recovered from Mound U (Operation 04) and dating to the Basic Selin period.



Figure 9-4 Nearly complete SMP:M bowl recovered from Mound U (Operation 04) and dating to the Basic Selin period.

9.2.2 Trujillo Coarse type

The majority of coarse wares at the site were similar enough across space and time to justify their characterization as a single type – Trujillo Coarse (TC). This type was introduced by Healy (1978a) but was not thoroughly described in this or subsequent publications. TC wares were abundant throughout all excavations at the site and were ubiquitous across space and time. Pastes varied in inclusion type, but were consistently coarse and poorly sorted, often with a very high percentage of temper. Paste colors varied widely but generally fell in the range from dark brown to reddish yellow.

TC vessels include bowls and jars, but jars are the overwhelmingly predominant form. Bowls (n=99) are simple hemispherical forms ranging in diameter from 10 to 50cm (median 25cm). TC jars (n=3131) share a neckless globular jar form with everted rims and no handles or appendages. Rim diameters ranged from 7 to 71 cm, (median 33cm), length (from the mouth to the lip) ranged from 20-60 mm and wall thickness ranged from 5-18 mm. The angle of the everted rim ranged from pronounced to moderate. Bases were usually convex. Coil production seemed the most common, although some slab production for reinforcement may have been used infrequently. Surfaces are rough but sometimes show evidence of expedient brushing or smoothing in places. No slips are present. Sooting is present on exterior and sometimes interior surfaces. Interior pitting and scraping are common. External heat alteration is also often present. Fire clouding is common, especially along rims, suggesting uneven firing atmospheres.

One whole vessel of this type was recovered by excavations in Lot 9 of Mound U (Figure 9-5), which gave us a better understanding of the form of the vessel body and base. This vessel was also instrumental in estimating vessel quantity at the site, as described below within the

functional group section of this chapter. The overall form seems well suited to either cooking or storage, perhaps both, but use-alteration suggests cooking was a common function of these pots.



Figure 9-5 Complete Trujillo Coarse type jar recovered from Mound U (Operation 04).

9.2.3 Imports and unknown types

The size of the current sample and the relatively unknown nature of the region archaeologically contributed to a number of unclassifiable finds. Surely many of these will fit into future categories as the region and its pottery tradition become more well-known. Only a small selection of unknown types or vessels are presented here. These were selected based on their ability to add to the current study due to attributable functions, to elucidate specific instances of exchange, or at least external connections, or sometimes all of these characteristics.

One vessel in particular was unparalleled in the rest of the assemblage and is thus far unreported in the region. It bears vague resemblances to and likely shares a function with the

toncoates or suspended beer dippers among the Shipibo-Conibo of South America (Figure 9-6; DeBoer 2001:225; Figure 8.4A). DeBoer says of their use that they were suspended on strings in order to withdraw beer from the bottom of large jars used for *chicha* during feasts to avoid having to tip them over as they neared empty. He notes that they took a, “symbolically charged form”, and despite not having been identified in archaeological sites, they were common at Cumancaya in the Peruvian Amazon, most notably in, “ceremonial deposits composed of smashed pottery vessels” (DeBoer 2001:225; Roe 1973). Our example came from Mound U, where other data point to strong connections to the south. It seems likely that this vessel was suspended as a type of ornament and used for purposes analogous to the *toncoates*, probably in conjunction with the many large cooking and serving vessels encountered in this mound.



Figure 9-6 Possible beer skimmer recovered from Mound U (Operation 04, Lot 11).

Other examples of imported ceramics were often eroded and difficult to identify. In some cases, clearly nonlocal pottery was worked into pendant shapes (Figure 9-7) or repurposed as smoothing implements for pottery production. Their curation in altered form speaks to their importance and likely to the ability to acquire imported pottery serving as a symbol of status. Of the nonlocal painted pottery traditions from Honduras, a single fragment of an Ulua Polychrome

vessel of unknown variety was identified from the Basic period deposits of Mound I. The similarities among the polychrome and bichrome traditions of Honduras combined with limited research in the central, southern, and eastern parts of the country contribute to the difficulties in distinguishing among them. One tentatively identified sherd is either from an Ulua Trichome (from El Cajon region) or a Sulaco Bichrome (Hirth et al. 1993:223) vessel (Figure 9-8). Only Dos Quebradas (Figure 9-9; Epstein 1957) pottery was abundant at the site, although uncharacteristic inclusions in the paste of some examples suggest these may have been local emulations. In fact, the Corocito Chalky type (Appendix A; Healy 1993) may actually represent badly eroded examples of this type.



Figure 9-7 Pendant fashioned out of a fragment of a Dos Quebradas type vessel. Recovered from Mound I (Operation 05, Lot 15).



Figure 9-8 Fragment from an Ulua Trichrome or Sulaco Bichrome imported vessel. Recovered from Mound P (Operation 03, Lot 6).



Figure 9-9 Nearly complete Dos Quebradas Polychrome vessel recovered from Mound P (Operation 03, Lot 6).

9.2.4 Variation in distribution

The distribution of type-varieties at the site was considered in two ways: stratigraphically (within contexts) and spatially (across contexts). In addition to providing chronological markers, the stratigraphic distribution of type-varieties within the excavated deposits provided supporting evidence for the rapid deposition of materials. If middens represented the long-term accumulation of materials, we would expect to see a gradual increase and decline in the use of types. No meaningful internal differences in the relative abundances of types across stratigraphic levels were noted in Mounds P and U. This supports the interpretation that these midden mounds were formed rapidly and, at the very least, within a single phase of occupation. This contrasts with clear breaks in the phase-specific types and varieties present in Mound I (Figure 9-10), in line with corresponding evidence for distinct phases of use of this mound.

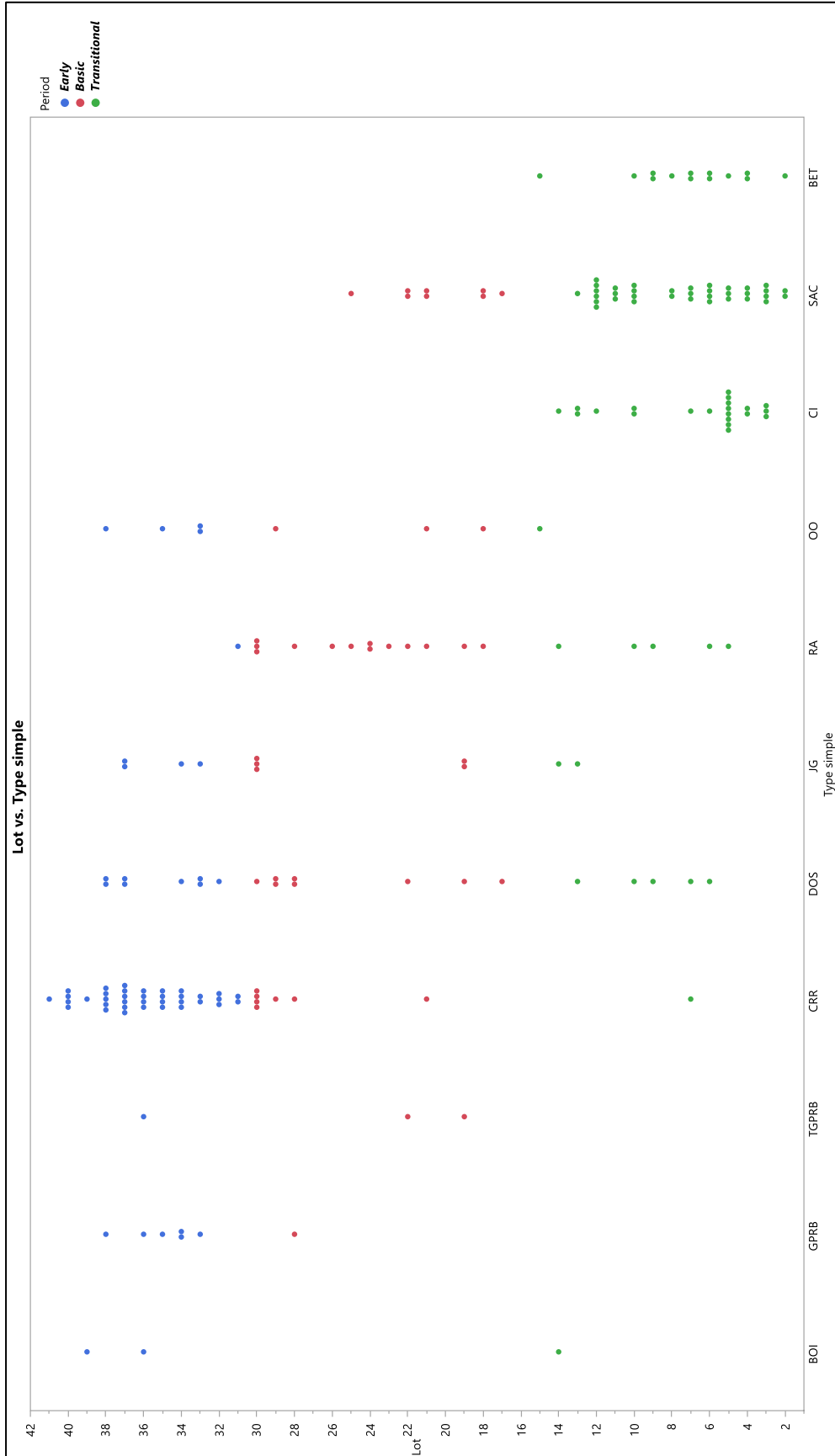


Figure 9-10 Distribution of ceramic types by lot in Operation 05, Mound I.

Variation in spatial distributions – the presence and quantity – of type-varieties across contexts was most meaningful within a limited number of specific types. First, the Selin Manatee type (SM), a truly local northeastern development, displays patterns of distribution that speak to its centrality as a northeastern symbol and help explain its longevity throughout both the Selin (AD 300-1000) and Cocal (AD 1000-1500) periods across the entire northeast region. Table 9-2 demonstrates the ubiquity and longevity of this type at the site. During the Early Selin, this type was present in identical relative abundances across our excavated contexts. By the Basic Selin, and continuing into the Transitional Selin, Mound I demonstrates higher relative abundances of this type than elsewhere. This suggests that the SM type played a central role in the supra-community events that took place in Mound I. This is significant given that the manatee becomes a uniting symbol among northeastern groups over time (Cuddy and Beaudry-Corbett 2001). The data from Selin Farm suggest that these communal feasts were one route through which multiple villages were brought together to give meaning to this symbol, which both reflected and helped to create and maintain this group identity. The community of consumption that included the sSM type was maintained over time as this motif persisted for over 1200 years. At Selin Farm, we can see that communal feasting became an increasingly important aspect of that community throughout the Selin period (AD 300-1000).

Table 9-2 Abundance of key types by mound and period.

	Early Selin (AD 300-600)		Basic Selin (AD 600-800)		Transitional Selin (AD 800-1000)	
	Mound P	Mound I	Mound U	Mound I	Mound I	Mound O
Type	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Cristales Incised	0	0	0	0	3.16	.67
San Antonio Carved	0	0	0	1.16	5.32	.67
Betulia Reed Impressed	0	0	0	0	1.83	.17
Selin Manatee	1.33	1.33	.67	3.16	3.83	1.16
SMP: Moradel	.5	6.16	11.98	18.3	5.49	3.33
San Marcos Polychrome	1.5	3.16	9.48	10.15	5.16	.33

Similar patterns were also identified within the painted pottery type known as the San Marcos Polychrome (SMP:SM, SMP:M), discussed above as a marker of interaction with southeastern Mesoamerican groups, and the types that exhibit the strongest evidence of lower Central American influences (CI = Cristales Incised, SAC = San Antonio Carved, BET = Betulia Reed Impressed). The latter types are distinguished by their emphasis on incising and punctate designs and are limited primarily to the Transitional Selin (AD 800-1000). Although incised and punctate designs are also present in local designs beginning in the Early Selin, their relative abundance increases from under 10% to over 50% of the decorated assemblage by the Transitional Selin. This is the well documented shift in the pottery designs that is believed to represent a shift towards southern ties at this time (Cuddy 2007; Healy 1984a, 1984b, 1993).

Two significant trends were apparent in my analysis that provide a more nuanced understanding of this shift. First, we can see that painted pottery (i.e., San Marcos Polychrome) continues to be made at the site into the Transitional Selin (AD 800-1000). This is particularly significant given that most other painted pottery traditions in Honduras cease to be produced

after around AD 800. Recent supplemental dating of charcoal samples from our excavations provide a post-AD 800 date (Reeder-Myers and Goodwin 2019) for the upper deposits of Mound I (Lot 03 and above), where San Marcos Polychrome sherds were still recovered. Not only were the potters of the northeast some of the earliest producers of painted pottery, they also carried on this tradition for much longer than groups in neighboring areas.

The second trend that is significant only becomes apparent when the type-variety distributions are considered across contexts as well as periods. From the Early Selin, San Marcos Polychrome types (SMP:SM, SMP:M) are most abundant in Mound I. In this setting, we first see the shift in the SMP jars to larger, thicker forms that was discussed above. Following this, these types become the most predominant at the site among the serving wares and this new size and form of jars replaces earlier styles in all contexts. Similarly, if the lower Central American types are considered across contexts, there is the expected increase in these types over time, but there is a higher relative abundance of these types in Mound I.

Together, the trends within the distribution of these types suggest that innovation in pottery style and form were funneled through Mound I. This pattern is in line with what would be expected within a community of consumption that emphasized cohesive group identity. Experimentation and introduction of new styles and practices took place at the group level and then filtered out into the broader community from there. This is a common avenue for change and innovation within egalitarian groups that have strict social rules about individual displays of difference (see Hastorf 2012; Wiessner 2002; Wells 2003, 2007).

9.2.5 Variation in form and size

Most of the meaningful variation in pottery size and form at Selin Farm was evident within functional categories (see below). However, there are also some notable patterns in form and size within the same types that demonstrate variation across contexts. First, the San Marcos Polychromes demonstrate size distributions that are indicative of feasting. Multimodal distribution of vessels is a classic indicator of feasting (see Chapter 4). San Marcos Polychromes are multimodally distributed by size, with at least two groups of vessels clearly distinguishable in all three phases of occupation at the site (Figure 9-11). During the Basic Selin period, it seems that there may also have been a third group with exceptionally small diameters of under 14 cm. This shift could be related to an increased production of individual ceramic serving vessels at this time, which may have been used to set individuals or groups apart during the feast and signal increased status relative to those using other materials like gourds. Miniature vessels are also used in ceremonies performed by the *wata* or shaman among Pech groups today (Moreno-Cortes and Wells 2006) and these could signal more intensive ritual practices, coinciding with the earliest appearance of censers at the site.

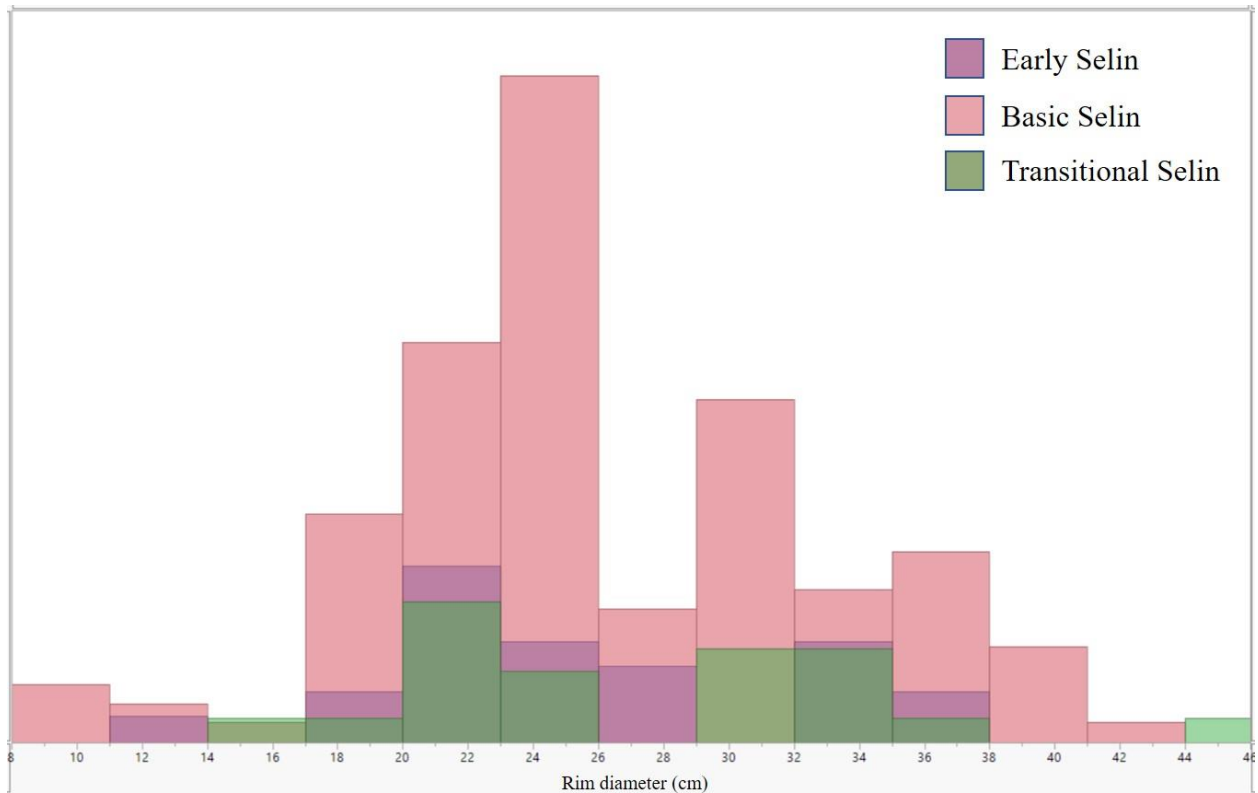


Figure 9-11 Distribution of San Marcos Polychrome vessel rim diameter over time.

There are also some significant trends in vessel forms. Within San Marcos polychromes, a shift to larger, thicker jars was noted above in conjunction with a change in style. This is reflective of site-wide shifts towards larger serving jars, as discussed below. This shift is significant in its timing – prior to other documented shifts in style in the region, its location – in Mound I, a communal setting, and in its form – as an emphasis on large serving jars suggests increasing importance of communal consumption of beverages.

Later in the occupation of the site, other changes in form take place. First, within the SMP: San Marcos variety, there is a notable shift in relative quantities of dishes to jars from the Basic to the Transitional Selin. Whereas SMP jars had previously outnumbered SMP dishes at a ratio of at least 1:2, they are now present at a ratio of 1:1. This suggests serving beverages from SMP jars declined in practice and that some new dish (possibly manioc in new forms and/or a

meat-based dish, see Chapter 10) was gaining a central place in feasts. At this same time, Mound O, a Transitional Selin domestic setting, has a relatively high number of SMP: Moradel bowls but is lacking in SMP:SM jars and dishes. This seems to represent, for the first time, internal heterogeneity in the dishes being served at the site.

Interestingly, this coincides with an increase in vase forms – both of the long-lived local Selin Manatee type and of the Transitional Selin period San Antonio Carved type that shares forms with groups to the north but design execution techniques suggesting southern affiliations. As noted below, these are generally smaller vessels that likely were used by individuals or small groups, rather than the large groups indicated by the SMP large serving jars that were central in the feasts of the Basic Selin period. These patterns are explored further below within the discussion of the serving wares functional group.

Together, these patterns suggest that the identities that were expressed within feasting settings were shifting along with the foods that were being prepared and served. Beverages were served from smaller vases, reflecting smaller group sizes during feasts and restricted access to certain aspects of feasts for the first time. That these vessels represented the continuation of local pottery traditions while also combining them with new styles and forms suggests that the role of communal feasts combined external influences with local traditions, blending the two together to legitimize and give meaning to new symbols, styles, forms, and likely practices related to their introduction.

9.3 Functional group data

The characterization of pottery into functional groups provides an organizational scheme that is fundamental for understanding how food preparation and consumption varied over time

and space. Pottery was grouped according to function based on a combination of attributes summarized below for each group (see above; Rice 2015:411-432). These also took into consideration norms in form, style, and size throughout Southeast Mesoamerica, as presented by projects from nearby sites and regions (Healy 1993; Henderson and Beaudry-Corbett 1993; Hendon 2003; Hirth et al. 1993; Joyce 2017, 2018; Wells 2007; Winemiller and Ochoa-Winemiller 2009). The following section details the functional groups as defined for the present study. Variation within and among assemblages from the excavated contexts are explored by functional category in the subsequent sections.

9.3.1 Functional group definitions

Food preparation wares included both cooking pots and vessels used for preparation without heat. This included all unrestricted coarse jar forms and unrestricted coarse and medium ware bowls with evidence of use over fire or without evidence for slips or smoothing (Figure 9-12; Rice 2015:237-239, 422). The largest class of pottery in this category by far were vessels of the Trujillo Coarse type-variety, particularly the jar forms, although the bowl forms also fell into this group. *Comales* or griddles and some *tecomates* were also included in this group. The Chapagua Red Rimmed jars and plates were included here, while bowls with little evidence for cooking or other forms of food preparation were included in serving wares. Evidence of external sooting and internal wear (abrasion or pitting) was also common among vessels in this category. Most were relatively large vessels and the majority of these vessels were jars.

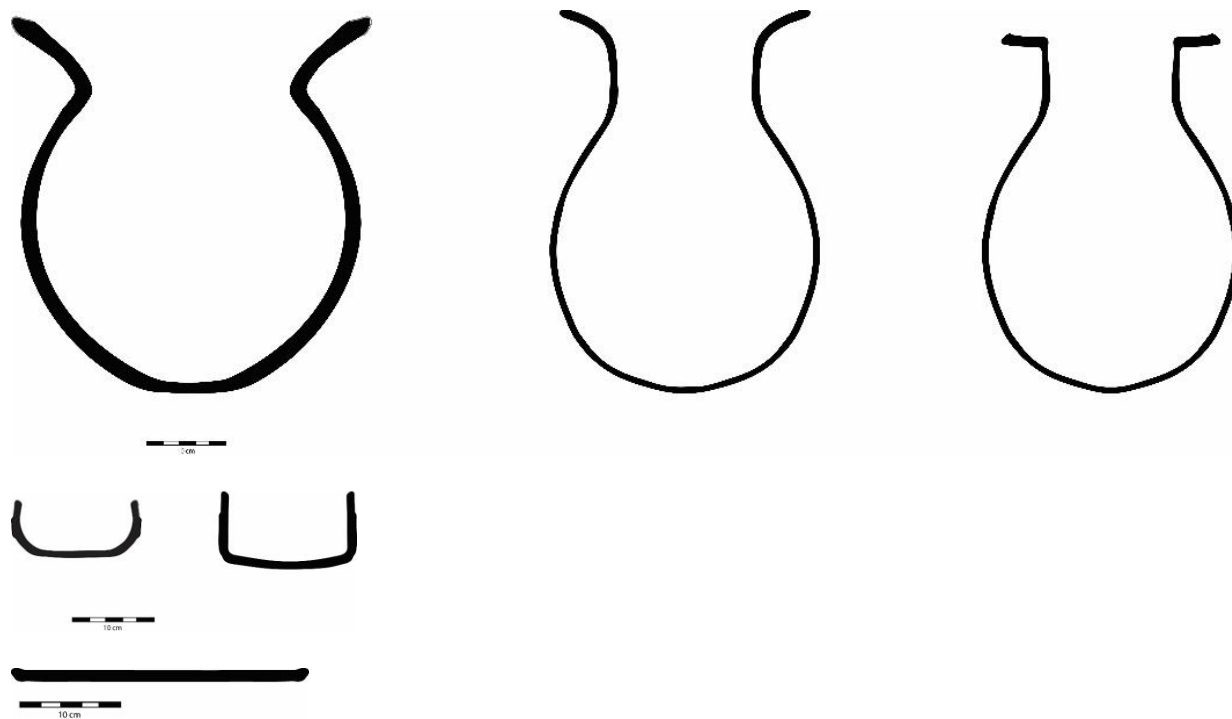


Figure 9-12 Common forms among cooking and food preparation vessels.

Storage vessels were mainly grouped based on the restricted nature of their orifice and large diameters (Figure 9-13). This group includes primarily restricted neck jars and some *tecomates*. Many of the jars had handles and some may have been made specifically for transport, although these could not be distinguished based on the current sample. Most vessels, although not all, were slipped. Few of these vessels belonged to any type-variety classification and have as such been overlooked in the record of materials at this site. This is likely due to their rarity in shell midden contexts, which hinders their preservation and recovery. The variation in shapes and surface treatments also precludes their designation to a single type. This is common of storage jars as they are often multipurpose vessels (Rice 2015:237, 422). These vessels were usually large as well.

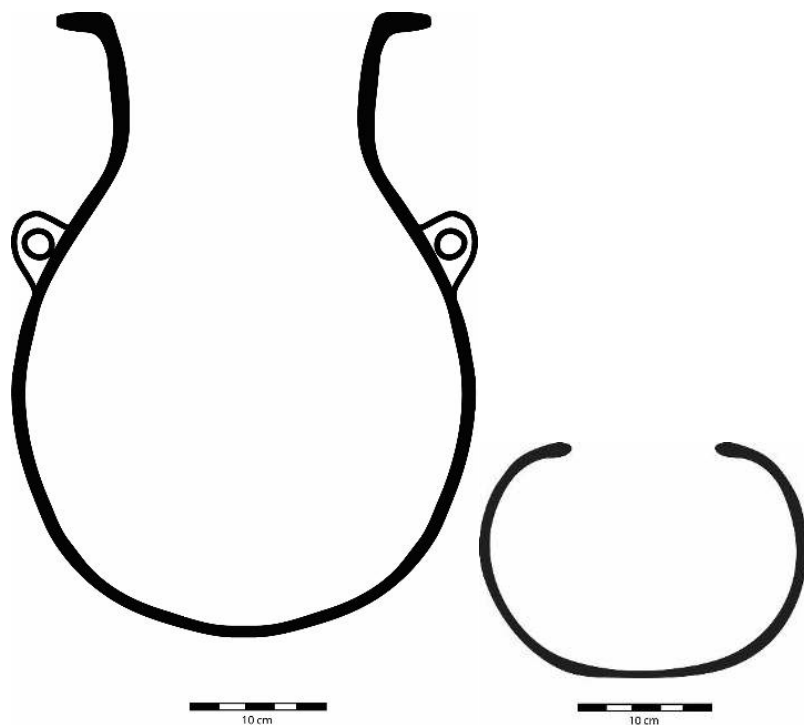


Figure 9-13 Common forms among food storage vessels.

Serving wares are usually fine to medium ware dishes, bowls, and jars (Figure 9-14). This group also included all vase forms. Surfaces were often slipped and vessels with decoration were almost exclusively categorized within this group. Most of the typed materials from the type-variety analyses were included in this group. Vessels that were not attributable to any type were included here if they were of fine paste or were dishes or unrestricted bowls or jars of medium paste. Size was variable and is likely to reflect either the size of individual servings or of the group size involved in consumption (Rice 2015: 237, Table 7.2)

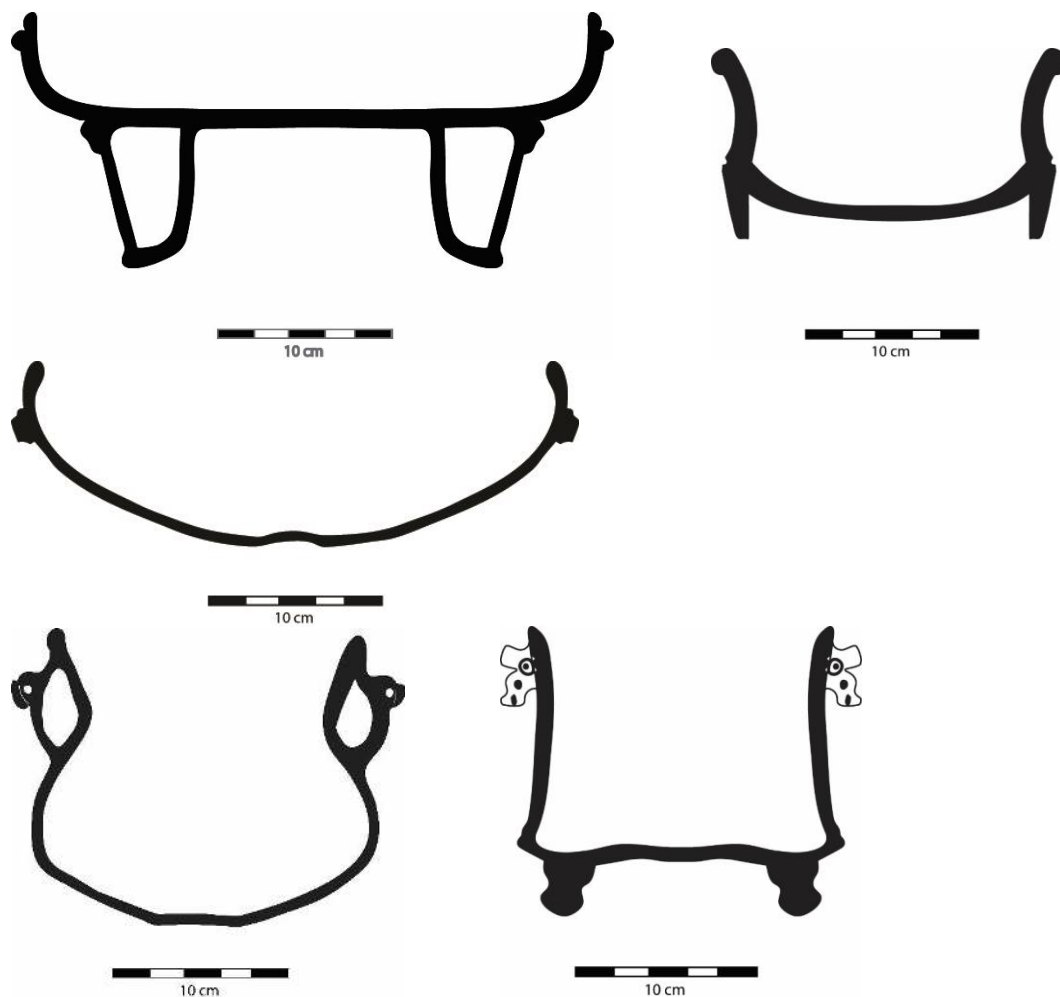


Figure 9-14 Common forms among serving vessels.

Ritual items include censers, figurines, whistles, and other worked ceramic materials like pendants and spindle whorls (Figure 9-15). This was a very rare category overall. The specific functions of many of these items are unknown. Censers are the most common form and the most well known in the region. Their use can vary but they most often serve as repositories for the ritual burning of incense during ceremonies, both public and private (Chapmann 1985). Although previously only identified in Transitional Selin and Cocal period deposits, we know about their form because more complete examples have been recovered elsewhere in northeast Honduras (Dennet 2007; Healy 1978b). These were also found throughout northwestern and central

Honduras at this time (Joyce 2018). Additionally, it cannot be discounted that some items categorized with other functional uses were likely symbolically charged. Decorated pottery in particular, either painted, modeled, or incised, included themes suggestive of spiritual beliefs and practices. Zoomorphic motifs were common and these were surely tied to animistic beliefs known to form important components of Central American ideologies (e.g., Loveland 1976). Anthropomorphic forms were also present and likely had ties either broadly to important roles or even to specific individuals in the ceremonial or political realm.



Figure 9-15 Common forms among ritual items.

9.3.2 Assemblage composition

At Selin Farm, most of the pottery recovered (69%, n=3884) was related to food preparation (Figure 9-16). Serving wares were also relatively common (18%, n=1027). Storage vessels (1.2%, n=17) and ritual items (0.3%, n=17) were rare. A considerable portion (n=627, 12%) of the assemblage of the site could not be classified to a specific functional group. Expanded studies of the large body sherds recovered as well as whole vessels in existing collections would help future classifications based on function. Variation in assemblage composition across space and time is further explored below.

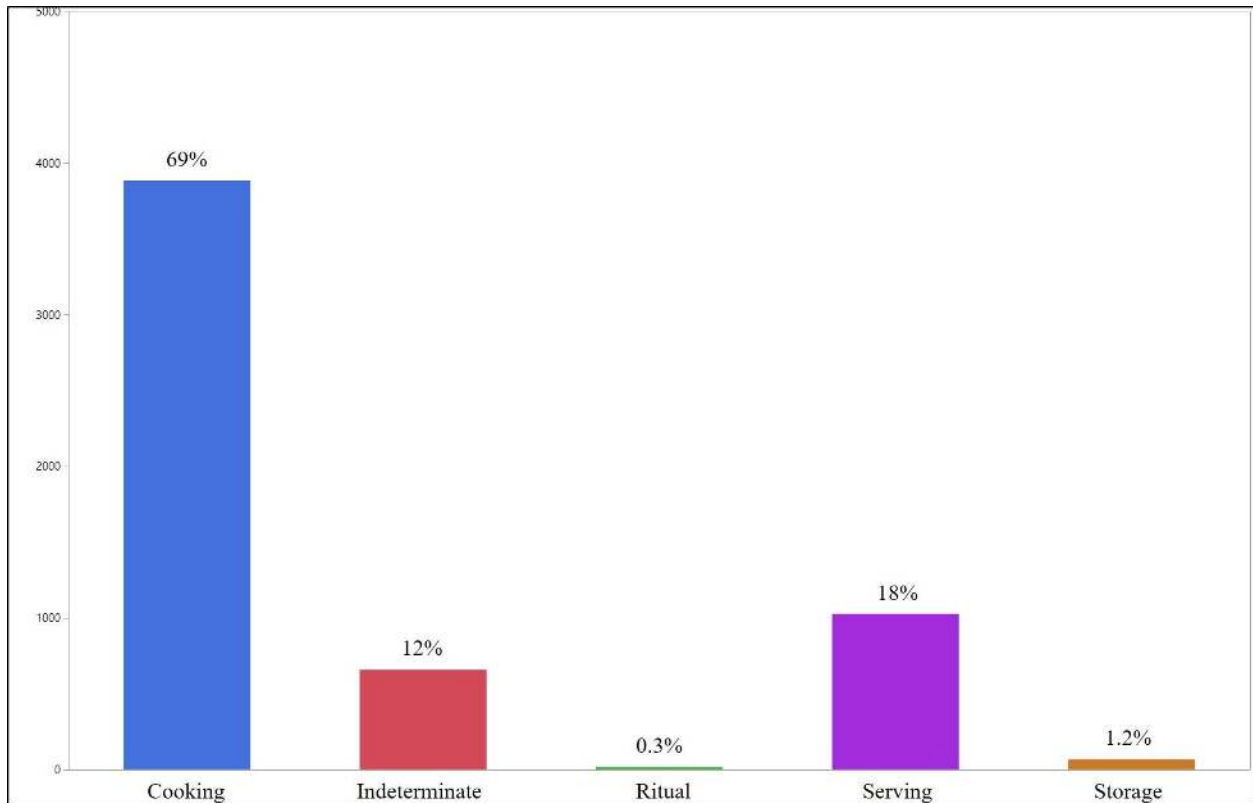


Figure 9-16 Vessels at Selin Farm according to functional groups.

9.3.3 Storage wares

The scarcity of storage vessels at the site is striking, but ethnographic examples demonstrate that relative abundances of functional groups vary widely cross-culturally (Rice 2015:194-200). It may also be that large, coarse ware vessels with unrestricted orifices were sometimes used for multiple purposes, including cooking and storage (Rice 2015:199).

Although the sample size is small (n=66), median sizes appear to decline over time (Figure 9-17). In Mound O, storage vessels were smaller than in other contexts (median rim diameter =13.50 cm, n=8), probably reflecting a lesser need for the storage of foods in preparation for feasting as well as the smaller group sizes for which these vessels were used.

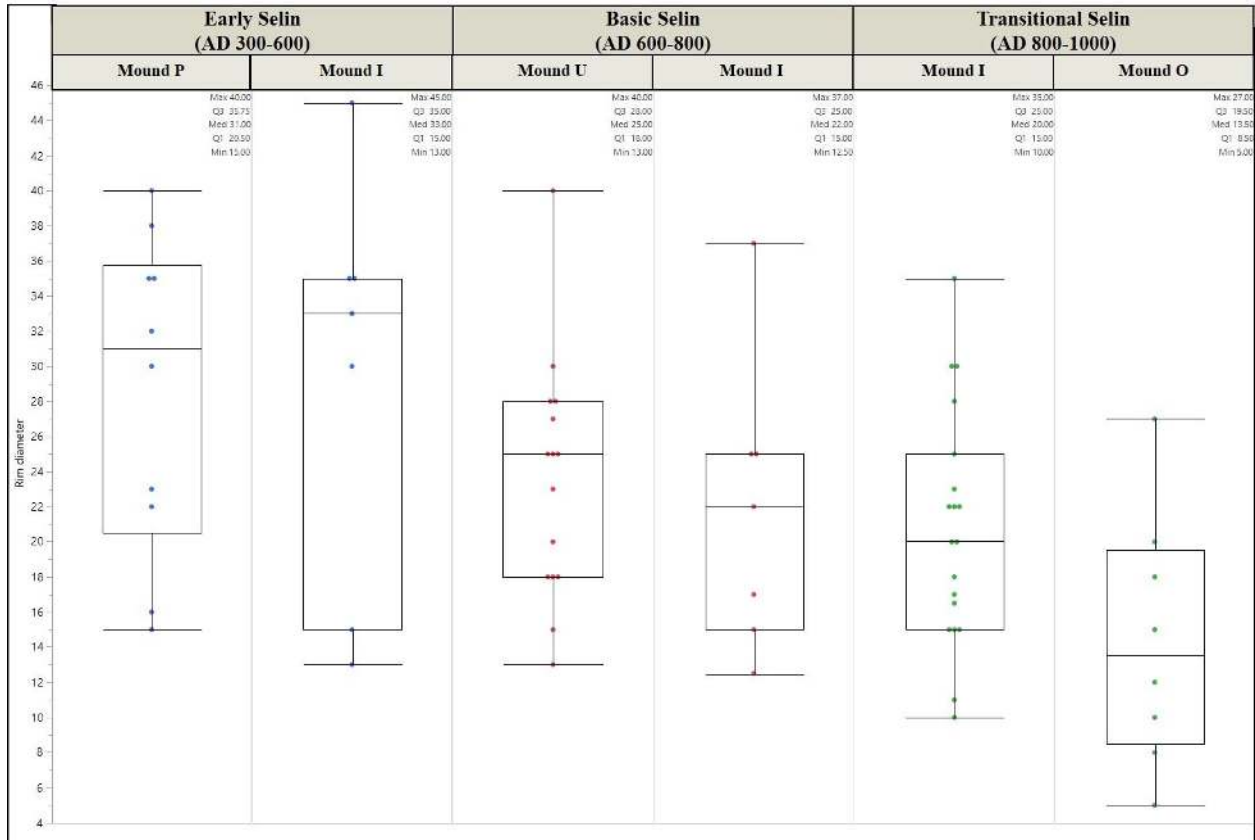


Figure 9-17 Median rim diameters of storage jars (n=66) by mound and period.

9.3.4 Food preparation wares

Food preparation wares was the most numerous of functional categories across all contexts. Among the vessels in this category, cooking jars far outnumbered other forms. Of the roughly 5600 rims analyzed, about 3500 (over 60%) were large cooking jars. Cooking jars, because of their abundance and homogeneity at the site, were used to ascertain a rough estimate of minimum number of vessels (MNV) and a more conservative estimated vessel-equivalent based on the rim (rim-EVE), as outlined above. MNV was calculated using an estimated average of 5kg per vessel for coarse jars. This weight was roughly equivalent to that of the whole Trujillo Coarse type vessel recovered described above (weight = 4.9 kg). Rim-EVEs were calculated

using the percent of rim preserved recorded for each rim classified as a cooking vessel (Orton and Hughes 2013:208-210).

The estimates of cooking jar quantities differ significantly across space and time (Table 9-3). This reflects patterns seen in the composition of excavation deposits presented in Chapters 5 and 6, where it was demonstrated that the scale of deposits in Mound I is roughly twice that of the other mounds, which means the overall number of vessels in the deposits at Mound I is probably more or less equivalent with the other mounds.

Mound P vessel estimates averaged around 7 per lot or roughly 140 vessels in the unit, or about 70 per cubic meter. Mound U had a significantly higher MNV of about 13 per lot for a total of approximately 325 vessels. Mound I deposits differ by occupation phase, rising from a site-wide low of 2 vessels per lot during the Early Selin, to around 7 per lot during the Basic Selin, and dropping to 3 during the Transitional Selin. The Basic Selin period was the height of intensity of feasting events at the site. It also coincides with an expansion in the site, probably reflecting growing populations. Because the median size of cooking jars does not change much over time, these differences are most likely tied to the number of people partaking in these feasts (Rice 2015:240).

Table 9-3 Estimates of vessel quantities by mound and period.

Mound/Time Period	Average/lot	Average/m3	Estimate of MNV (weight)	Estimate of EVE (rims)
Mound P/Early	7.03	70	115	68
Mound U/Basic	12.9	130	275	119
Mound I/Early	2.26	23	20	14
Mound I/Basic	6.89	69	88	65
Mound I/Transitional	3.07	30	40	27

While the number and percentage of cooking vessels in use by most households in ethnographic and ethnoarchaeological studies varied widely, the numbers obtained by our excavations greatly exceed what would be expected to be in use by a single household or even by the community as a whole, given its size. Ethnoarchaeological studies have demonstrated that the percentage of assemblages commonly used in cooking within a household range from about 25 to almost 90 percent (Rice 2015:195). Additionally, ethnographic measures are of total pots in use. When considering average annual discard rates of pots, the number expected in ordinary refuse deposits would decline even further. For example, of the cases studies compared by Rice (2015:197-198), small communities averaged around 8 cooking vessels per household (ranging from 3 to 14) and although discard rates can vary widely from community to community or even from household to household, a conservative estimate for replacement rates is around 15% of a household inventory per year. In sum, consumption of pottery at mounds P, U, and I at Selin Farm greatly exceeded the rates and quantities expected from typical household use. Interestingly, *chicha* pots or *ollas* in northern Peru are essentially temporary use vessels that last only two months if used once a week (Rice 2015:202), meaning discard rates for vessels with this particular function are high.

Marlen Aguilera, a current UNAH undergraduate student, is performing an analysis of paste groups among the coarse wares from our 2016 excavations for her senior thesis. Her analysis is ongoing (Aguilera 2019), but preliminary results suggest changes in coarse ware paste recipes are distinguishable across time at the site. Most notably, she saw a significant decrease in the variability of pastes within the cooking wares (especially Trujillo Coarse) from the Early Selin in Mound P to the Basic Selin in Mound U. Specifically, she identified three paste groups in Mound P but only a single paste group in Mound U. These patterns support interpretations that

large deposits of cooking wares were made and broken as part of ritual practices of use and disposal related to feasting. They also suggest that the roles and abilities of hosts of feasts differed over space and time, as the wastage of cooking jars within the setting of Mound U was more extreme than elsewhere. Hosts of this event were able to mobilize a considerable amount of labor to produce and dispose of a large quantity of pots.

Cooking wares in general and cooking jars specifically remained fairly uniform in size over time and space (Figure 9-18). Size distributions across contexts, however, reveal some interesting trends. First, there is evidence in all contexts except the domestic context of Mound O that there was some investment in large cooking pots (maximum rim diameters over 50 cm in all contexts, reaching as high as 71cm). The sizes of these pots suggest that they were being used for preparing food for large groups. Production of vessels of this size typically only occurs when feasting events are held regularly, otherwise pots from the domestic assemblage are borrowed, resulting in a bimodal distribution (Clarke 2001:160; Hayden 2001:48).

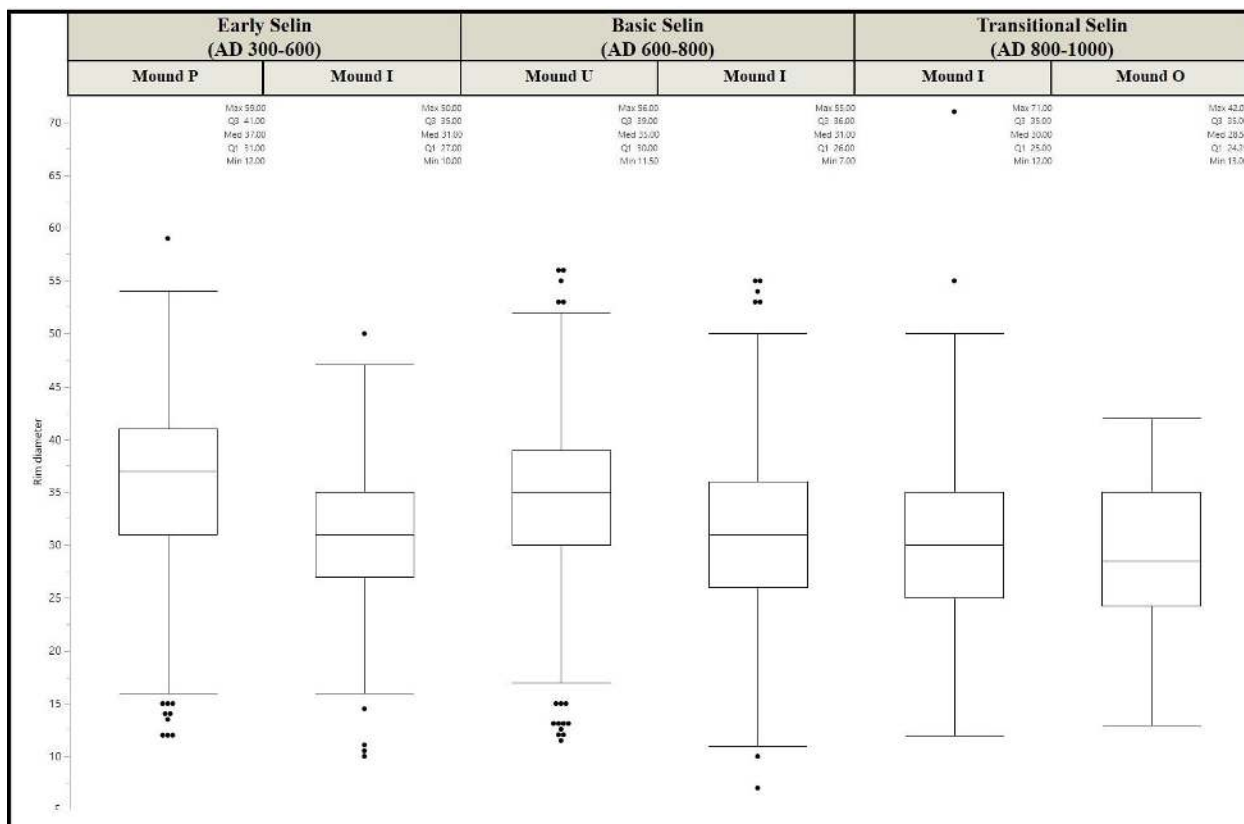


Figure 9-18 Median rim diameters of cooking jars (n= 2840) by mound and period.

Bimodal distribution is also relevant to the second pattern in the cooking ware assemblage. Cooking wares did not, in any context, demonstrate bimodal distribution, as was expected (Figure 9-19). Instead, our data demonstrate relatively normal distributions. I believe this could be due to the likelihood that many of the vessels disposed of in these contexts were produced for these specific feasting occasions. Increased production for an individual event resulted in similarly sized vessels. This is in line with other evidence that these cooking vessels likely served to be used and discarded during the event as a show of wastage. The increased level of production in a small-scale society would have had long-lasting impacts on local economies (Spielmann 2002; Wells and Davis-Salazar 2007; Wells 2003, 2007). In this case, however,

ritual production was driven not by the production standards of ritual crafts (e.g., Spielmann 1998), but by consumption and disposal practices that necessitated quantity over quality.

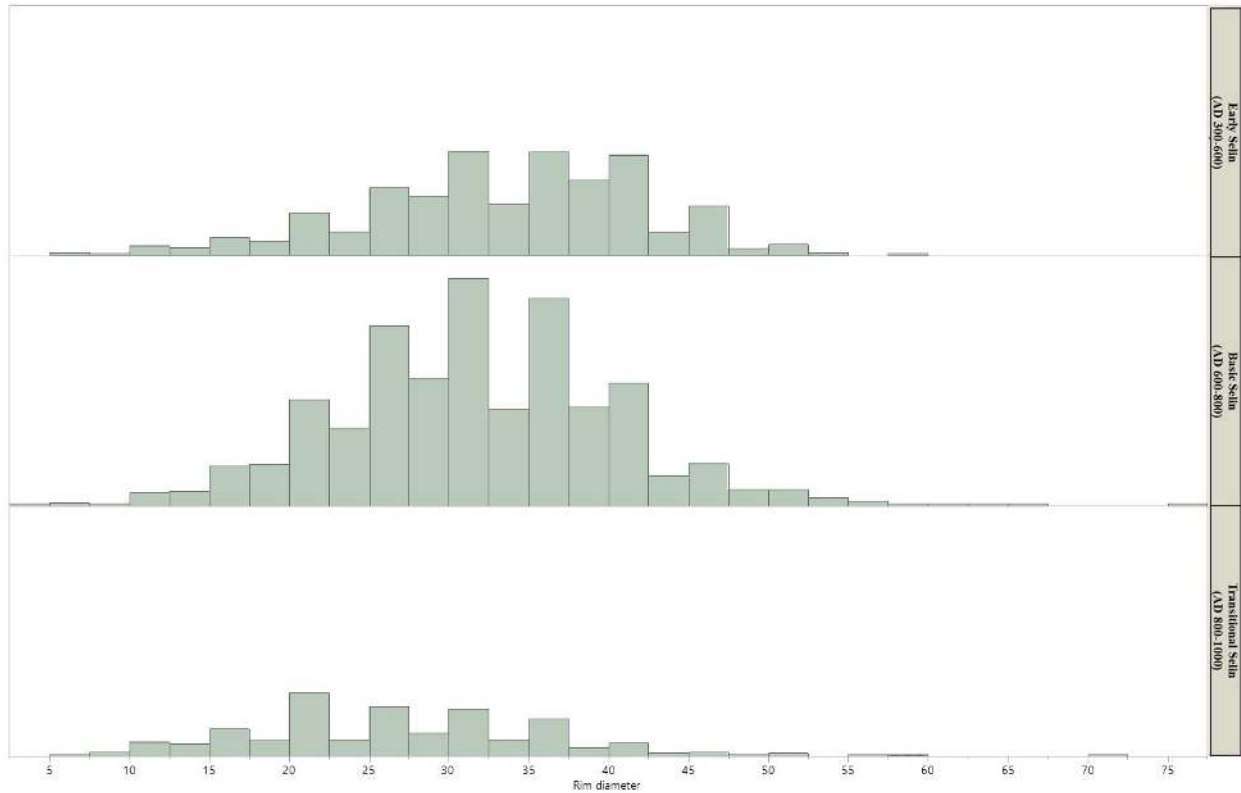


Figure 9-19 Distribution of rim diameters of cooking wares over time.

The most significant change within cooking wares was the increase in the relative abundance of the *comal* or griddle form within the Transitional Selin assemblages. The abundance of griddles jumped from a steady 1% to 7% of the cooking ware assemblages (Figure 9-20). The *comal* form was present in both Transitional Selin contexts, Mound I and Mound O, suggesting it became important in both feasting and domestic settings at that time. *Comales* are used for roasting foods and are particularly significant given their association with corn tortillas in Mesoamerica. This form is not common until around the same time (Postclassic period ca. AD

950) in that region. Current Pech foodways provide an alternative function for this form as it is a central tool in the roasting of *sasal* – cooked manioc shaped into tortillas or rolls and then roasted. This dish central to both everyday meals and feasts (see Chapter 3).

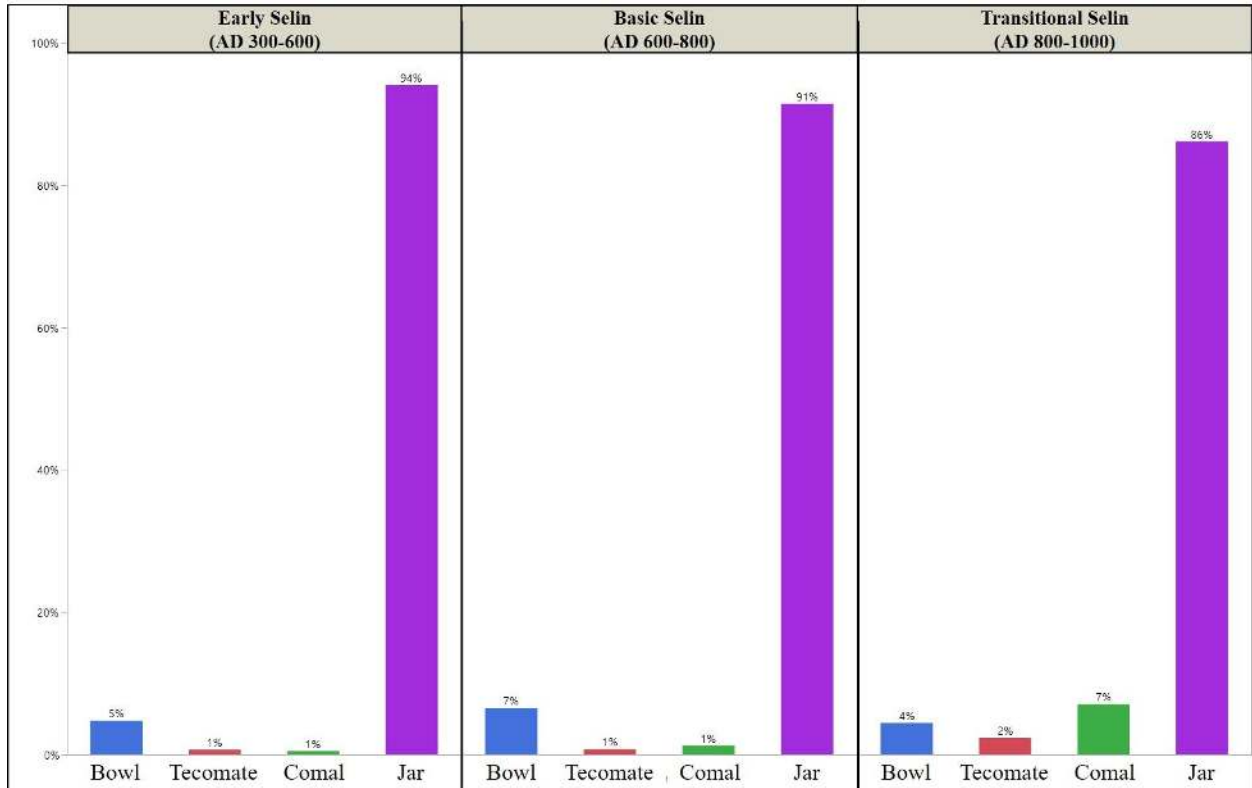


Figure 9-20 Percentage of ceramic forms by period.

9.3.5 Serving wares

Estimation of the number of vessels represented by the serving ware assemblage was more difficult, given the variation in these vessels relative to the cooking wares. Raw counts of vessels would not be particularly useful in any case, given that the characterization of a serving assemblage as feasting related typically relies heavily on comparisons with everyday, domestic

household assemblages (Hayden 2001). This type of comparative data set is unavailable for the current study, with the exception of the Mound O Transitional Selin domestic context sample.

When comparative domestic assemblages are lacking, a high ratio of serving to cooking wares may serve to signal typical feasting assemblages (Rice 2015:195). This becomes problematic as an indicator for feasting, however, when the feasts in question are large, communal events that include purposeful disposal of high quantities of cooking wares as we see at Selin Farm. The atypical feasting assemblage ratio of the midden mounds from the site suggest that cooking and serving, food production and consumption, were closely tied (Figure 9-21). This makes sense if there was a lack of spatial and probably social distance between the people who were hosting and those who were participating in these events.

Despite these challenges, internal comparisons of serving to cooking ware ratios over time can inform on variation in feasting practices at the site. It is apparent that there was a change in the assemblage composition from the earlier phases of occupation to the Transitional Selin. If we look more closely at these ratios across contexts (Figure 9-22) it becomes clear that there are spatial as well as temporal differences.

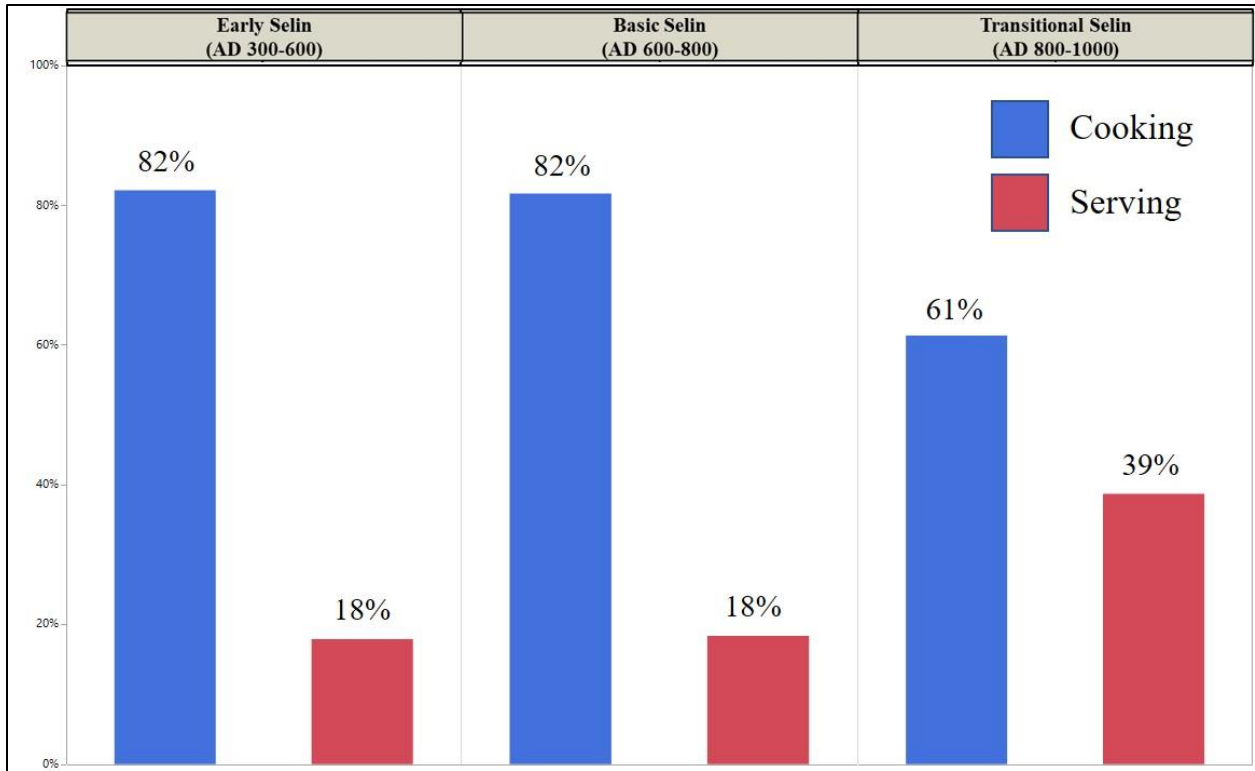


Figure 9-21 Ratio of cooking to serving wares by period.

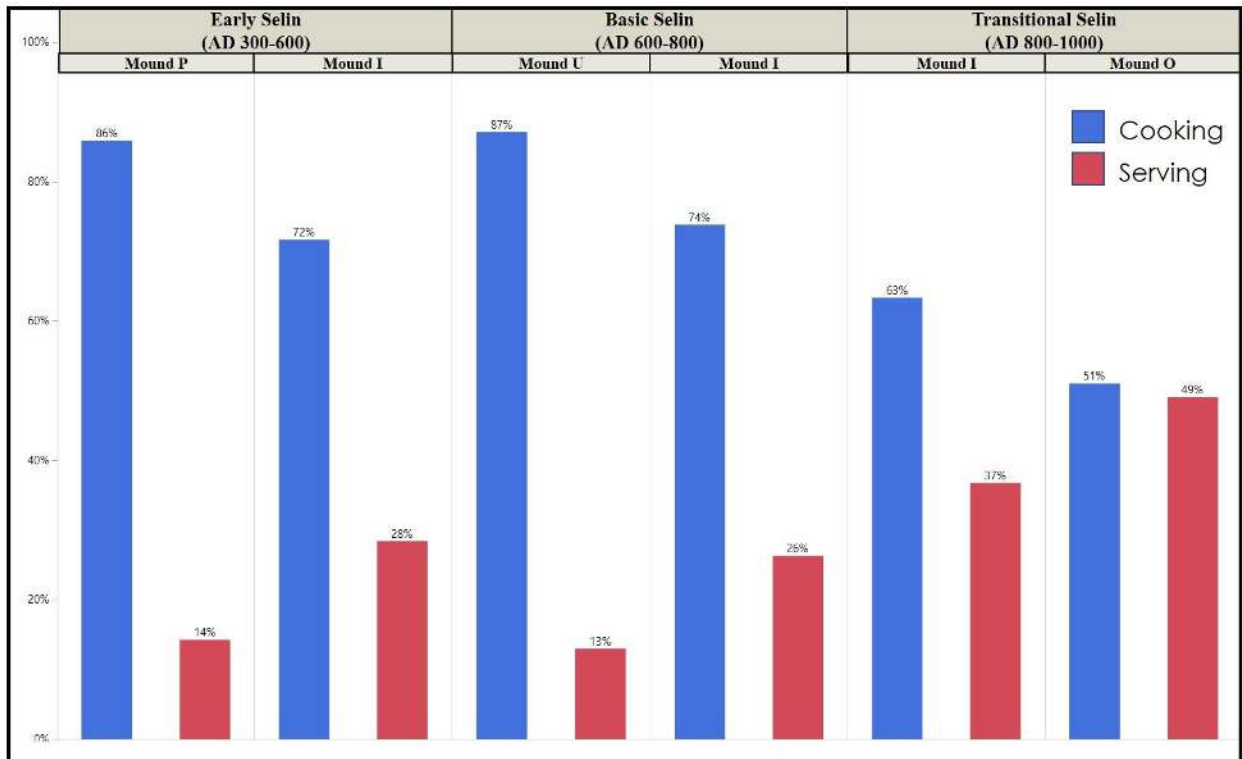


Figure 9-22 Ratio of cooking to serving vessels by mound and period.

During the Early Selin and Basic Selin periods, Mounds U and P have similar distributions in terms of the relative percentages of the functional groups represented. Roughly 85% of these assemblages are cooking related vessels while around 15% are serving wares. Storage jars are similarly very rare. I take this to mean that hosts of the events in these settings oversaw the majority of food production for the event and this resulted in the deposition of pottery for food preparation in large quantities. This pattern is also partially explained by extreme examples of wastage of cooking vessels in these settings.

Mound I is unique at the site in its assemblage composition across all periods. In Mound I, the ratio of serving to cooking wares is consistently higher throughout the Early and Basic Selin periods at around 70% for cooking or food preparation and just under 30% for serving. This points to differences in the roles of the hosts of the events that resulted in the construction of Mound I. Work party feasts are likely to have brought in people from neighboring communities to partake in the construction of this monumental architectural feature. Typically, hosts would have been responsible for providing food to laborers at these types of events (Wells 2003, 2007). If these efforts were viewed as beneficial to all involved, however, not just a single lineage or household, labor mobilization may have operated under different assumptions. Motivations for participation likely would have included ritual or religious incentives as well as more tangible alliance-building activities that took place. This may have encouraged participants to contribute to the production of food as well as to the construction tasks for the events that took place at Mound I. Food production away from this location would have contributed to the higher ratio of serving to cooking wares seen in this context.

This difference grows greater over time in Mound I and in the Transitional Selin; both Mound I and Mound O have a lower ratio of cooking to serving wares than other contexts at the

site. The domestic assemblage of Mound O is distinct from the assemblages of all other contexts, with the highest ratio of serving vessels overall. This supports conclusions that the ritual wastage of food preparation vessels was central to feasting events and resulted in the unexpected ratios present in the midden mounds.

The higher serving to cooking ratios in the Transitional Selin suggests that eating and feasting at this time may have been organized differently than in previous phases of occupation. There may have been more of a division between preparation and consumption, with more spatial and probably social distance between the two, as we might expect with increasing social inequality (Hendon 2003; Turkon 2007:154). The fact that there are multiple residential structures at the site and no clear differences between them in size prior to Mound O during the Transitional Selin supports this interpretation.

There are also significant patterns in the size distributions and median sizes of serving wares (Figures 9-23 to 9-25). First, all major forms of serving wares (bowls, dishes, and jars) are bimodally distributed. Serving jars are more extreme in this regard and actually could be argued demonstrate three modes at 15 cm, 30 cm, and 50 cm. As noted above, this is a clear indicator of feasting assemblages, and suggests that individuals and groups involved in feasting were doing so regularly enough to invest in feasting-specific forms. It also signals that multiple households were participating in food consumption and contributing to disposal practices by borrowing from their domestic assemblages. The rim diameter distributions of serving assemblages from Mound I and Mound O Transitional Selin contexts demonstrate clear evidence for this practice. Both assemblages possess one mode at just above 20cm, representing typical domestic serving wares for this phase of occupation. Mound I, however, also demonstrates additional modes above 30cm, indicative of continued investment in large serving wares used for feasting. The common

occurrence of crack-lacing repairs on serving vessels across all contexts demonstrates that both large and small serving vessels were curated over time.

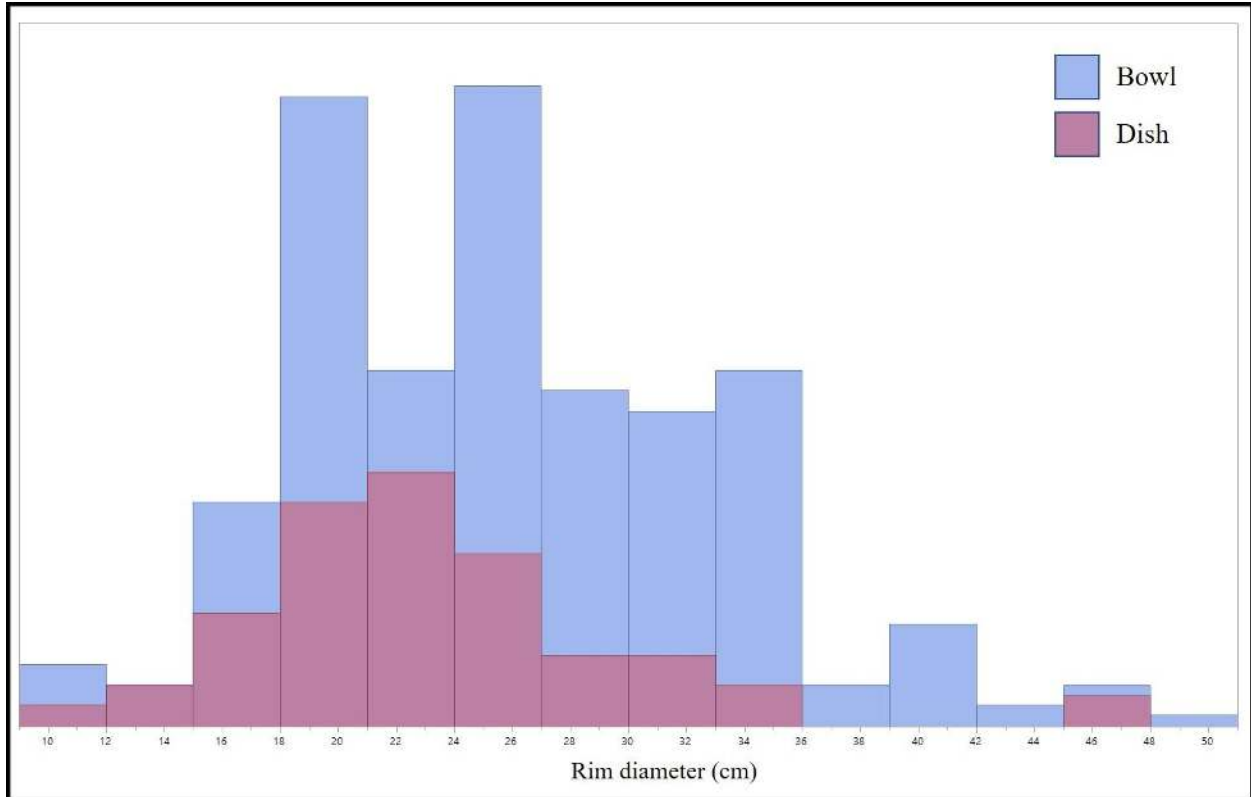


Figure 9-23 Rim diameter distribution of serving bowls (n=312) and dishes (n=102).

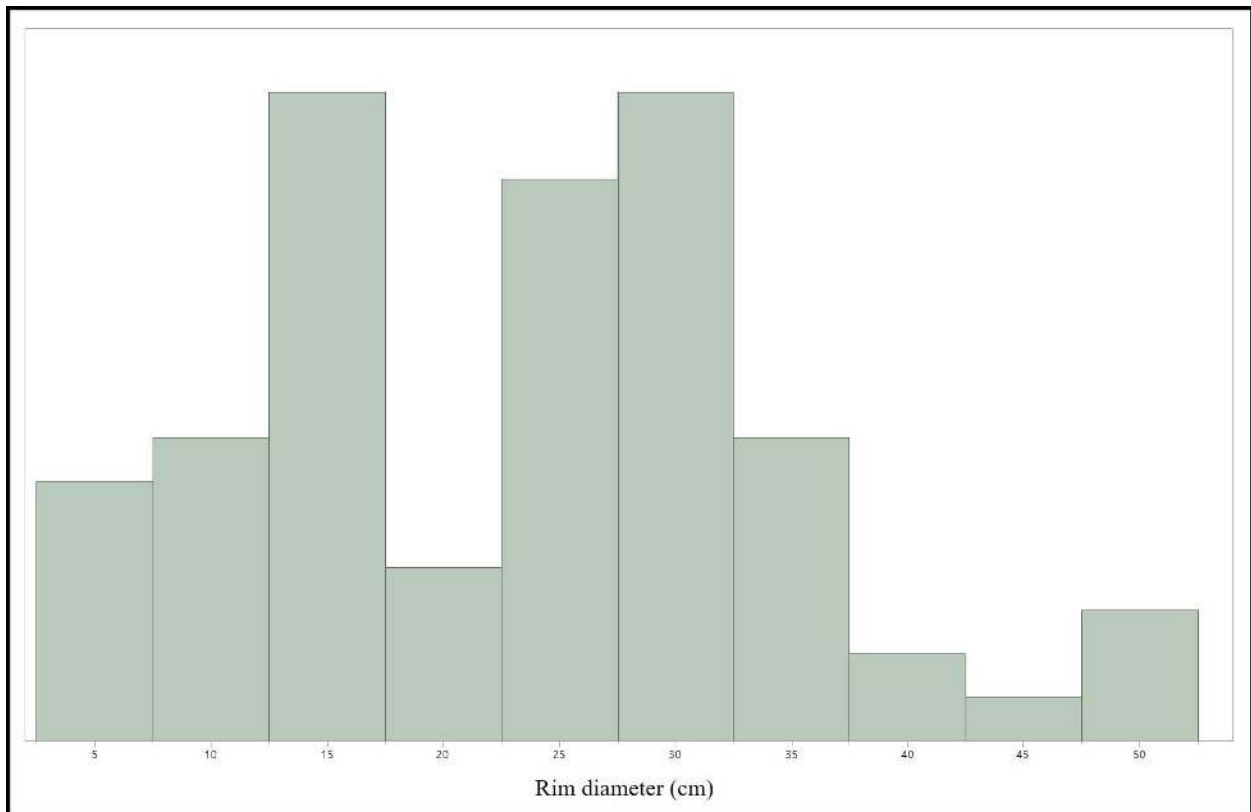


Figure 9-24 Rim diameter distribution of serving jars (n=73).

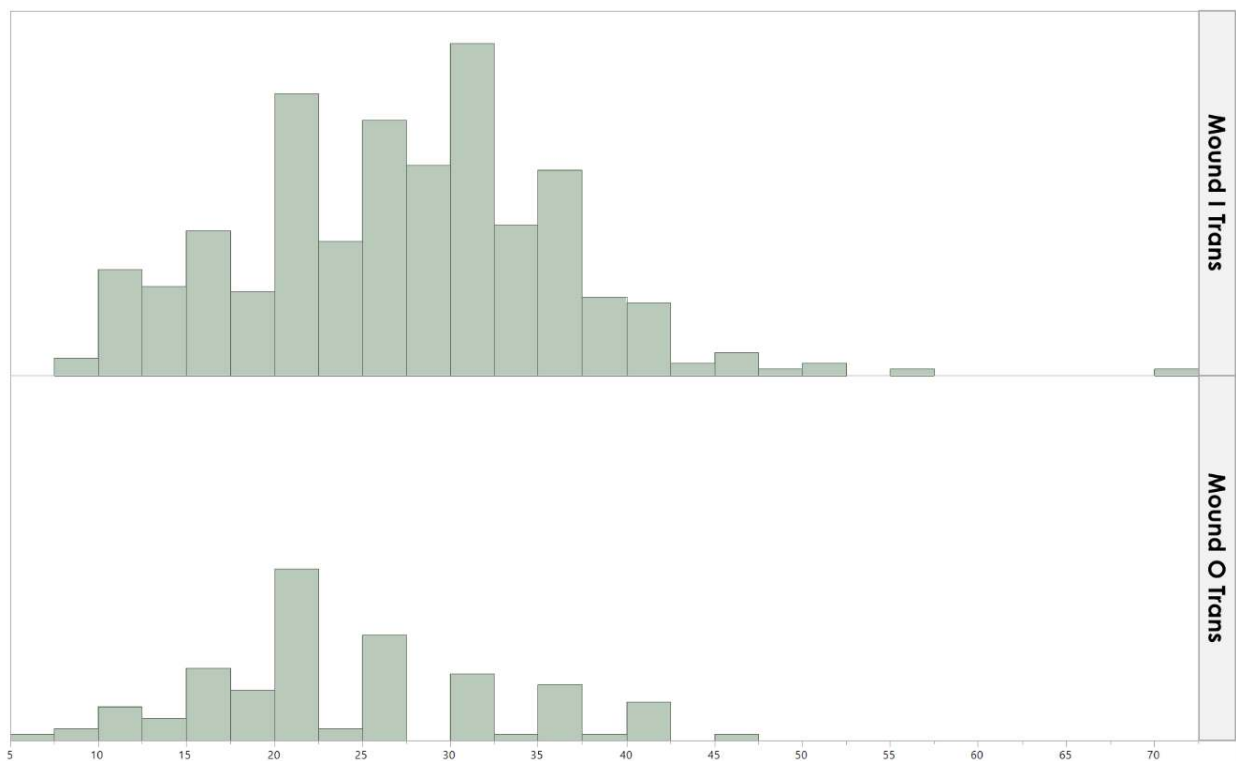


Figure 9-25 Rim diameter distributions for serving wares during the Transitional Selin by mound (n=112).

Serving jars, including the emblematic San Marcos Polychrome jars discussed above, increase in median size from the Early Selin to the Basic Selin period (Figure Figure 9-26). This timing is coincident with the San Marcos polychrome shift from the thin-walled intricately decorated form to the thicker and simpler form. This change first took place at Mound I but this form and the larger serving jars in general then became popular across the site. Innovations in style and form were first introduced in Mound I before being spread elsewhere in the community (see above). During the Transitional Selin period serving jars decreased markedly in median size, demonstrating shifting styles of beverage consumption.

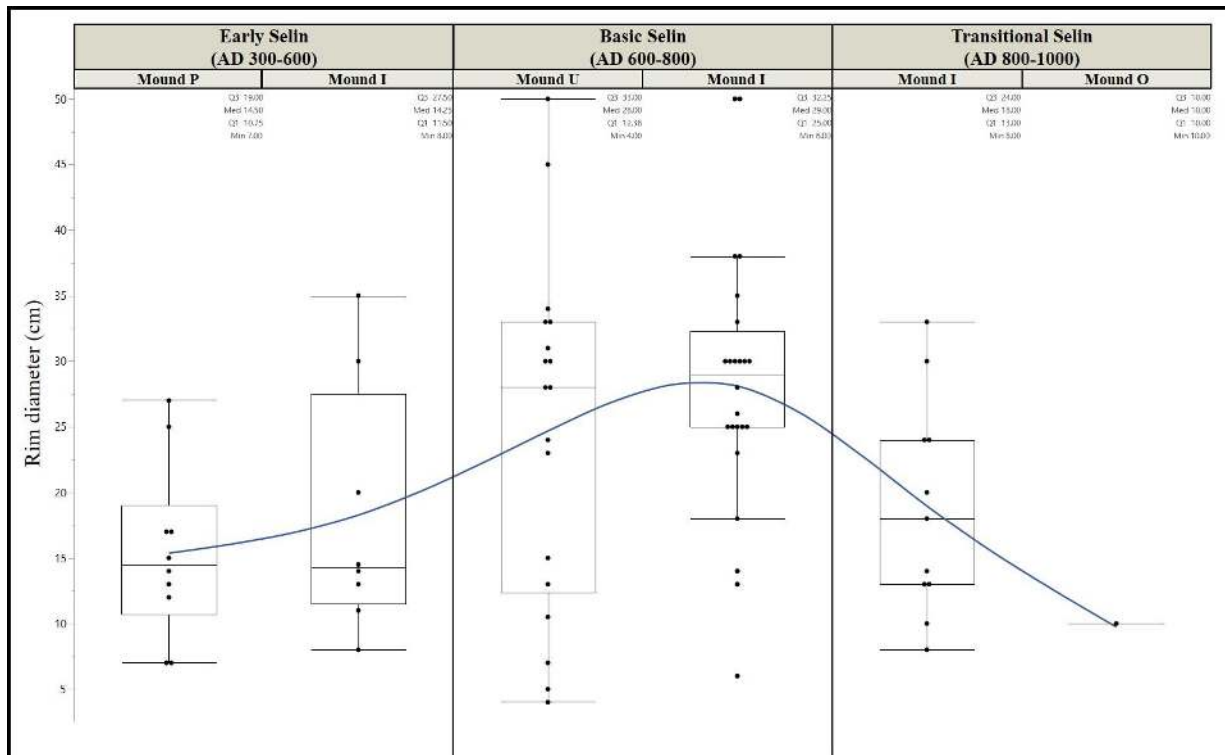


Figure 9-26 Median rim diameters of serving jars by mound and period (n=73).

A similar trend towards smaller vessel size is visible within the other serving vessel forms as well (Figure 9-27), which points to broader changes in foodways beyond this decreased emphasis on beverages in ritual settings. The overall trends suggest that serving wares slightly increased in size from the Early to Basic period, but then became smaller during the Transitional Selin period. The domestic assemblage of Mound O stands out for its relatively low median size (Figure above and below), as expected given the smaller group size eating in that setting. In contrast, the rim diameter distributions of Mound I suggest that some of the decline in median vessel size in Mound I is attributable to an abundance of small (<17.5cm) vessels (Figure 9-24 above), suggesting increased use of individual or small group serving vessels in this setting. This shift is in line with other data on changes in the use of the summit of Mound I that suggests that some aspects of feasting events became more exclusive over time. Identity negotiation was

increasingly controlled by a smaller number of people who were directing these communal events and setting themselves apart through the use of different consumption styles involving distinct pottery made for individual or small group use. Ties in the ceramic (and ritual, see below) assemblages between Mound I and Mound O suggest that the inhabitants of the residential structure at Mound O were likely involved in the feasting and ritual practices that took place on Mound I during the Transitional Selin. It seems that some individuals were actively using work party feasts as an avenue to cement more permanent roles as hosts and community leaders that were tied to the first evidence for social differentiation at the site within the domestic sphere (i.e., continued occupation of Mound O as other residential structures were abandoned during the Transitional Selin).

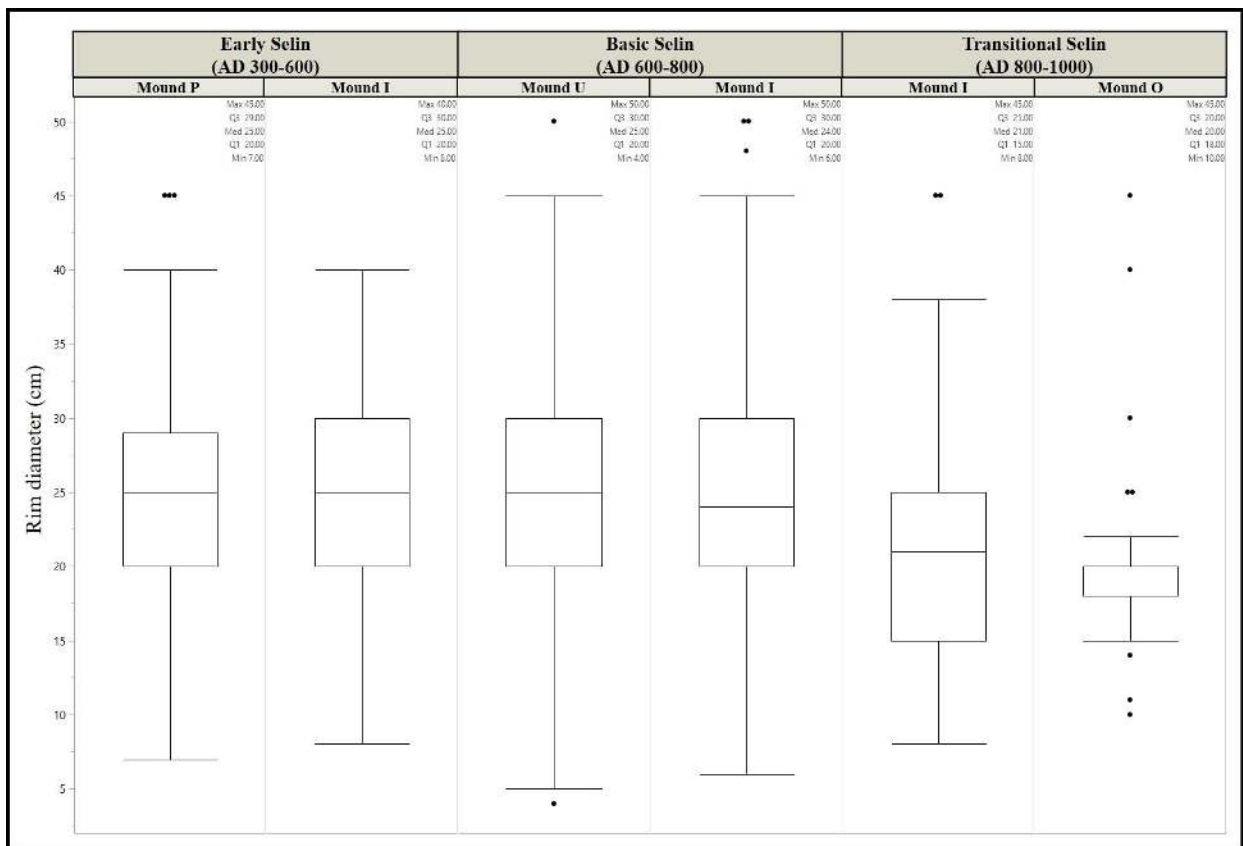


Figure 9-27 Median rim diameter of serving vessels (n=542) by mound and period.

The serving wares also shift clearly in the relative proportion of forms over time (Figure 9-28). Bowls are uniformly the most common form of serving vessel over time and space, although their use falls off from earlier levels in the Transitional Selin period. At this time, dishes become nearly twice as abundant as they were before and vases roughly three times as abundant. The elaboration of forms during the Transitional period suggests there was a greater variety of dishes being served and/or increasing variation in consumption styles. Changes in vessel size point to new styles of consumption that emphasize individuals or small groups (i.e., vases as individual serving cups) and new preparation forms (i.e., comales) suggest that the use of dish forms might have been related to new forms of foods prepared. Residue data (see Chapter 10) negate the likelihood that this difference is related to new or more varied ingredients or resources being consumed.

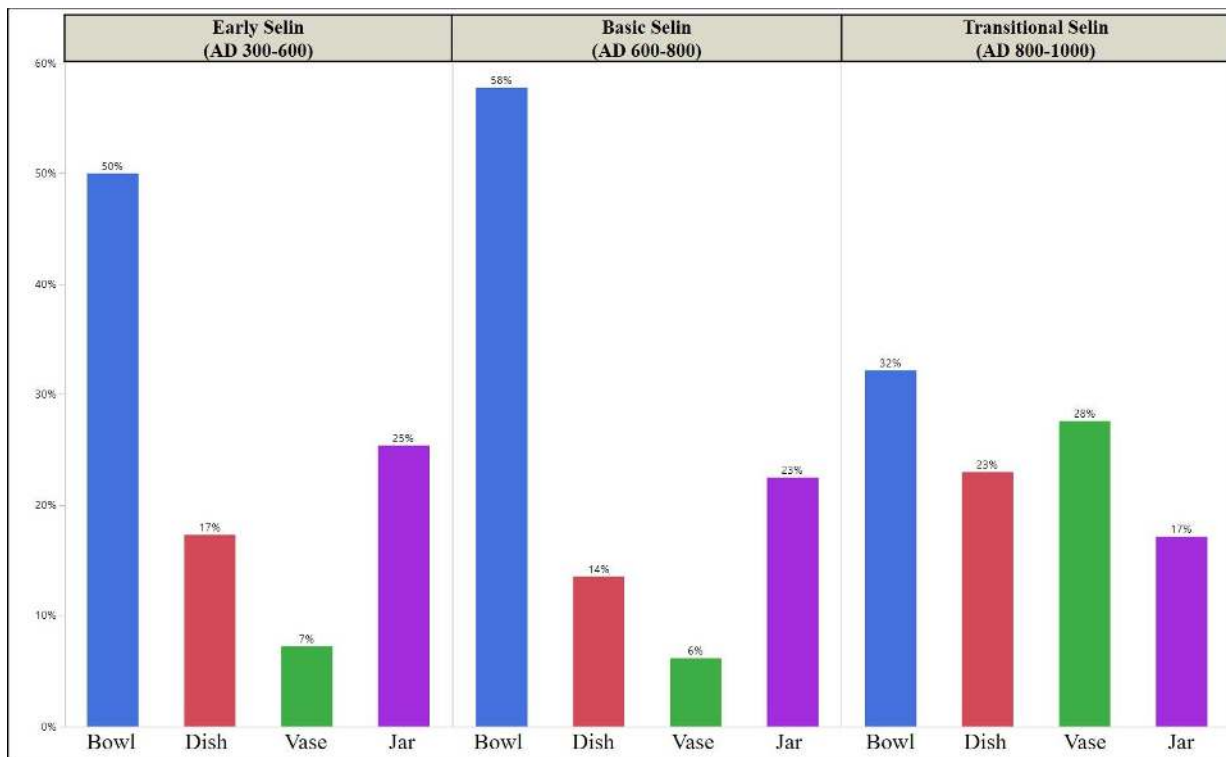


Figure 9-28 Percentage of serving ware forms by period (n=959).

Differences in the relative abundances of forms across Transitional Selin contexts provide some insight into variation between domestic and feasting assemblages at this time (Figure 9-29). While vases and dishes increased relative to earlier periods, these changes did not occur evenly across these two contexts. Vases, likely individual serving vessels, were present in similar relative abundances. Dishes, however, only increased in abundance very slightly in Mound O, while the increase was much greater in Mound I. Bowls continued to be abundant in levels similar to previous phases of occupation. Jars were present at a much lower ratio in Mound O than in any other context at the site. These trends indicate that, first, Mound O domestic assemblages generally resemble Early and Basic period feasting assemblages in composition (i.e., no unusual forms), suggesting that there may not have been a significant difference in the styles of consumption across these two settings even though vessel sizes and group sizes apparently differed.

Secondly, serving jars made up a larger percentage of the assemblage in feasting contexts than in the domestic one, pointing to the importance of ritual beverages in commensal eating. The centrality of drinks in feasts appears to have continued into the Transitional Selin, but in an altered form. Vases were present in both contexts but were only associated with serving jars in Mound I, suggesting that both larger and smaller groups were still being served in that setting whereas Mound O appears to have featured small groups and individuals only. This is in line with size data from serving wares as well. In the events at Mound I, if group sizes were large, as they appear to have been as evidenced by excavation, faunal, and food preparation ware data, it appears that some participants did not have individual ceramic serving sets and were instead likely using perishable materials such as gourds (see Chapter 3). This would have been a notable distinction among participants. Additionally, the abundance of dishes in Mound I may signal

increased meat consumption in that setting (in line with faunal and residue data) or, given the coincident timing with the increase in the use of *comales*, may be tied to increasingly varied forms of preparation of manioc (see Chapter 10).

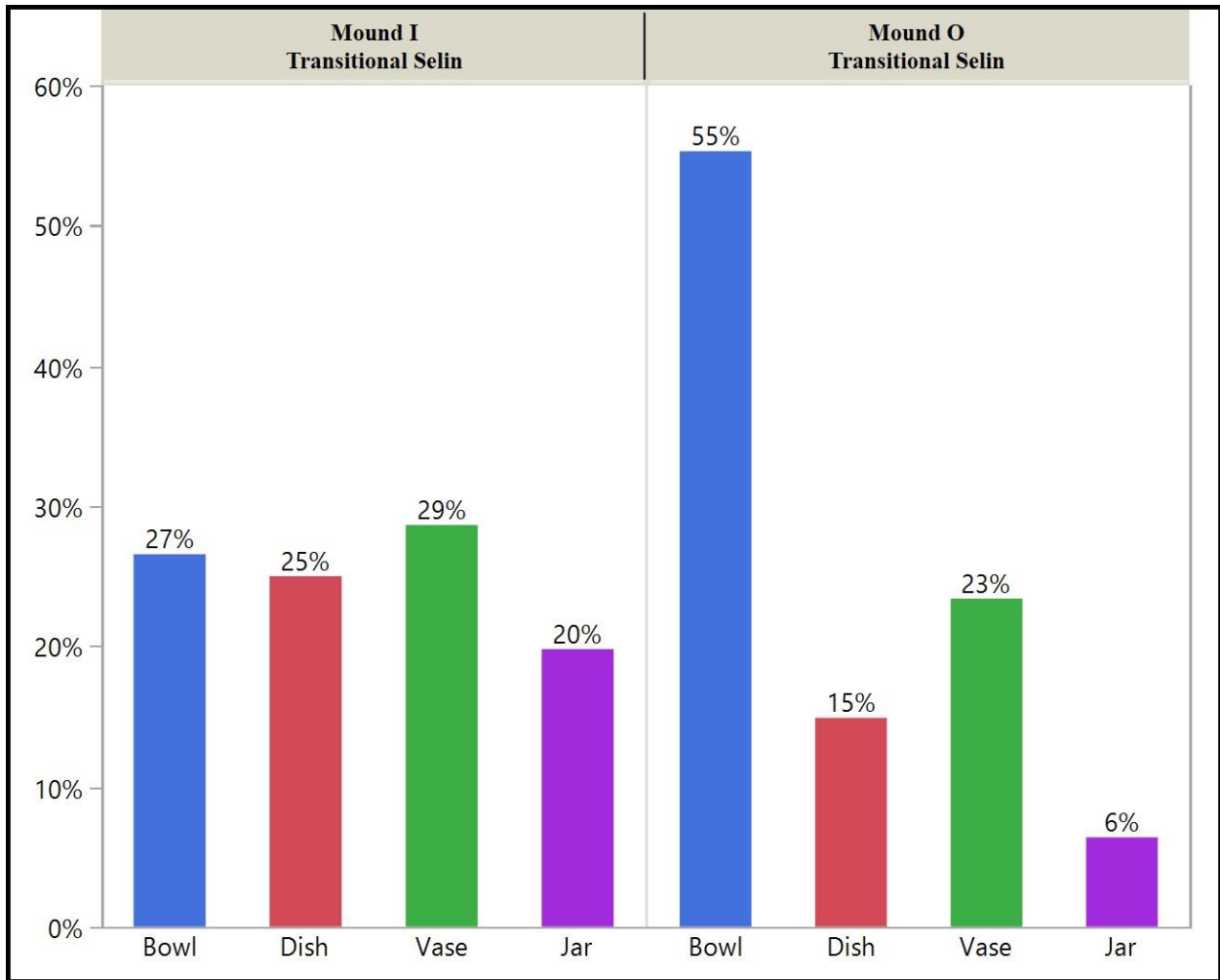


Figure 9-29 Percentage of serving ware forms by mound during the Transitional Selin.

9.3.6 Ritual items

Ritual items made of ceramic were not introduced until the Basic Selin period. At this time, Mound U contained two likely imported sherds of the Dos Quebradas type that had been

shaped and smoothed, and in one case perforated. The function of these is unclear and may have been utilitarian (i.e., for smoothing pots during production). This is interesting given that wastage of pottery is most extreme in this setting, with a higher density of preparation vessels than any other context. The ability to mobilize labor to produce pottery seems to have been a significant factor in the ability of the host or hosts of the event tied to Mound U, and likely served as one route for the display of relative wealth and status within the community where permanent (e.g., differences in residential architecture) or exclusionary (i.e., network based) displays of wealth would not be morally acceptable (Wells and Davis-Salazar 2007).

During the Basic Selin, Mound I contained different and more varied ritual items. These included multiple fragments of ceramic figurines, pendants, and the first examples of censers. These deposits also included the only example of a ceramic spindle whorl encountered in our excavations, indicating specialized production of textiles in this setting. Bone needles found exclusively in this context by Healy (1978a) support this conclusion. During the Transitional Selin, the ritual assemblage of Mound I is further elaborated upon – adding ceramic whistles, stamps, and the distinct ladle form censer (“Capiro Monochrome Incensario”, Dennett 2007:44-45; Healy 1978b:21). This form and the timing of its use indicate clear ties to the Las Vegas Polychrome pottery of the Comayagua Valley (Joyce 2018).

Within our excavations at Selin Farm, ladle censers were recovered from Transitional Selin deposits in both Mound I and Mound O. This further strengthens my argument that there were definitive ties between the household that occupied Mound O and the feasting events that occurred at Mound I. The superstructure at the summit of Mound I that was built at this time was also associated with an increase in ritual items and the first evidence of this type of censer that connects these two contexts. Together, this suggests that the exclusive ritual practices that took

place at Mound I were also occurring at a smaller scale within Mound O. Current evidence suggests that these new ritual practices were restricted to these two settings within the site.

9.4 Summary

Ceramic data from Selin Farm support the interpretation that large, communal feasting was taking place at the site throughout its occupation. People were making and disposing of ceramics in quantities that suggest large group sizes but also wastage as a display of wealth. Variation in the scale and intensity of wastage of ceramic vessels, particularly food preparation wares, suggests internal heterogeneity at the site in the ability of hosts to mobilize labor for pottery production. Wastage of ceramic vessels serves as the strongest evidence for sociopolitical competition among those participating in the communities of consumption at Selin Farm throughout the Early and Basic Selin.

During the Early Selin, San Marcos Polychrome and other painted pottery was used in feasts. This marks the early participation of the occupants of the site in the communities of consumption that linked Selin Farm with other northeastern villages and southeastern Mesoamerican communities. By the beginning of the Basic Selin, potters in the northeast had begun shaping the San Marcos pottery to fulfill local needs. Large serving jars were first used in the supra-community feasts taking place at Mound I. These forms and the painted styles that they were associated with then became popular throughout the site. Similar trends in other innovations in pottery suggest that Mound I served as a setting in which important negotiations of the use and meaning of these styles and forms took place.

By the Transitional Selin, significant changes were taking place in the form and content of the feasts at the site. Lower Central American influences became apparent in the pottery

styles, following patterns seen in other shifts where changes are first introduced in the feasts of Mound I. This timing corresponds with a decrease in the size of serving vessels and the introduction of new forms that suggests some aspects of feasting were becoming restricted, while continued use of very large preparation vessels demonstrate that communal feasts were still occurring. Connections between Mound I and Mound O assemblages in both serving wares and ritual items suggest that the emerging elites, likely ritual specialists, were probably inhabiting this residential structure. The household of Mound O represents the only known domestic occupation of the site at this time, signaling that more permanent inequalities had emerged among the inhabitants of Selin Farm at this time.

The ties between changes in feasting events and broader changes in social organization evident at Selin Farm serve as a reminder that feasting is more of a process than an event (Dietler and Hayden 2001:7), as it often includes a considerable amount of time and labor that lead up to the act of consumption and is followed by laborious disposal activities. These activities have long-lasting impacts on the local economies of small-scale societies. To understand the form and content of feasts, these processes, from production to consumption to disposal, need to be taken into consideration. Although beyond the scope of this study, this is particularly true of the specialized production, use, and discard of ritual items (e.g., Kovacevich and Callaghan 2013; Spielmann 1998, 2002; Wells and Davis-Salazar 2007). A detailed investigation of the ritual mode of production and its causes and consequences should serve as a productive route of future research at the site given the abundance of evidence for ritual consumption and production at Selin Farm, especially in and around the monumental architectural feature represented by Mound I.

In addition, the pottery from Selin Farm and the resources and networks involved in its production should be considered in more depth for their potential to provide insights into questions about exchange within small scale societies. Both the quantity and consistency of cooking jars suggests these were produced locally. Deposits encountered during excavation suggest that the high clay content of the local soils was likely an additional draw for this location. Future surveys along the Silin River would likely identify numerous workable clay deposits suitable for pottery production. Easy and unrestricted access to the resources necessary for pottery production probably contributed to the excessive discard of vessels at the site. How the availability of resources like clay for pottery and the rich ecosystems of the lagoon and marine habitats near Selin Farm contributed to the ways in which social and political developments unfolded in the area should be fully considered by future researchers. Understanding the interplay between cultural and natural systems in this area would enrich our abilities to contribute to modern conversations about the importance of balancing social development with environmental concerns in Central America and beyond.

CHAPTER 10 :

RESIDUE DATA

Residue analyses of stable carbon and nitrogen isotopes from pottery served as the main source of information about specific resource use for the present study. The primary goal of these analyses was to understand the relative importance of maize and manioc crops over time and space in the pottery assemblages of Selin Farm as a proxy for northern and southern influences in local foodways. This relates directly back to the main goals of the present study, which are to assess how the foodways of the people living at the site reflect ties to groups to the north and the south and how these covary with pottery styles. Together, these symbolic elements were investigated to see how they are indicative of shifting identities and if these material expressions of identity represented the same affiliations or presented a source of conflict within identity negotiations. Additionally, comparing the results of residue analyses across pottery types, forms, and sizes allowed for the elucidation of associations among resources and pottery that were not apparent through other lines of evidence.

Residue analysis also provided an additional independent line of evidence that helped to understand pottery function as well as to elucidate patterns of resource use at the site that were otherwise indiscernible. While there are certain universal characteristics of vessel form that relate general shapes to particular tasks (see Rice 2015:413-141), function should not be assumed based on vessel form and size alone and should be tested, where possible (Rice 2015:218). This is

particularly useful in regions where ties between form and function have not been well established. One route for gaining direct information on vessel function is through the analysis of residues (Evershed 2008; Heron and Evershed 1993).

10.1 Residue analysis methods

To gain information related to resource use (i.e., manioc and maize) at Selin Farm, analysis of bulk stable carbon and nitrogen isotopes of absorbed residues was undertaken on a sample of the pottery from our excavations. The stable carbon and nitrogen isotopic composition of food residues in potsherds is a function of the foods that were cooked or served in the vessel. Certain types of food resources have different compositions and can be identified using their characteristic isotopic signatures (Figure 10-1).

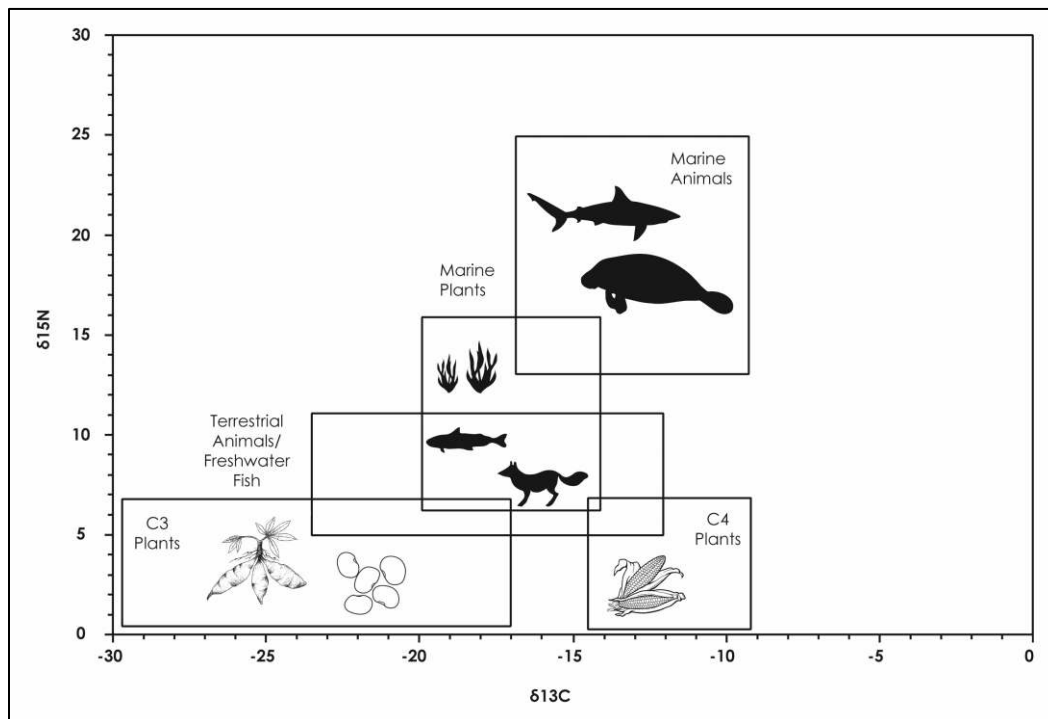


Figure 10-1 Summary of stable carbon and nitrogen values for terrestrial and marine resources (adapted from Knudson et al. 2015).

Stable carbon isotope signatures represent the measure of the ratio of ^{13}C to ^{12}C , expressed as $\delta^{13}\text{C}$. C3 and C4 plants have different photosynthetic pathways and produce distinct ratios of ^{13}C and ^{12}C (Seinfeld et al. 2009; Tykot 2004). The majority of terrestrial plants are C3 plants (including root crops like manioc, fruits, nuts, and legumes) while maize uses a C4 photosynthetic pathway. C4 plants in the tropics are limited (some amaranths, chenopods, and setarias) and, as a result, the distinct $\delta^{13}\text{C}$ signature of C4 plants in the archaeological record here is likely to indicate the use of maize. The mean $\delta^{13}\text{C}$ value of C3 plants is -25.5‰ while that of C4 plants is -12.5‰.

Nitrogen isotopes, which are a measure of the ratio of ^{15}N and ^{14}N and are expressed as $\delta^{15}\text{N}$, can provide information on the amount of protein an organism consumed from plants versus animals because of stepwise increases in $\delta^{15}\text{N}$ between trophic levels (Beehr and Ambrose 2007:176). Because oceans have long and complex food chains, marine organisms demonstrate characteristically high levels of $\delta^{15}\text{N}$ when compared to terrestrial ones. Legumes, with nitrogen fixing microbes, have characteristically low $\delta^{15}\text{N}$ signatures.

Experimental and archaeological studies have demonstrated the efficacy of isotopic analyses on absorbed and charred ceramic residues (Hart et al. 2007a, b; Hastorf and DeNiro 1985; Morton and Schwarcz 2004; Seinfeld et al. 2009). However, this technique has been employed uncritically by others in the past. While cooking is believed to not significantly alter the isotope ratios of residues on potsherds (Morton and Schwarcz 1988), issues of post-depositional taphonomic processes have not received enough attention (although see Whitney 1992). Despite this, significant progress has been made in understanding how differential preparation techniques alter residue deposition and preservation (Lovis 1990; Skibo 1992).

Maize in particular has been studied extensively and some issues are known. It was previously assumed that a linear relationship existed between the amount of C4 plants relative to C3 plants in the bulk carbon isotope signature and a standardized formula by Morton and Schwartz (2004) was used to obtain relative percentages of each. However, Hart and colleagues (2004, 2007a,b, 2009) have demonstrated that maize is underrepresented in cooked residues and suggest that differential contribution rates of carbon by resources affect the bulk signature. Furthermore, they provide experimental evidence that the form of maize used (whole kernel, hominy, or corn meal) and time cooked are driving factors in the dissolution rates of maize resources and their resulting contribution to the bulk carbon signatures (Har et al. 2009:2210-2211). It follows that the shift from whole kernel to corn meal use should be represented by higher rates of recovery of maize and higher contributions of maize to isotopic signatures of residues due to the increased surface area of ground maize. Experimental work with maize and manioc beverages demonstrated that both were represented in absorbed residues, although the relative contribution of each was not assessed and is likely not representative of the original composition of the food (Seinfeld et al. 2009). Similarly, nitrogen isotopes cannot be used to estimate the amount of meat cooked or served in a pot, but high $\delta^{15}\text{N}$ values should indicate the presence of meat (Beehr and Ambrose 2007:181).

In contrast with compound-specific stable carbon isotope analysis (Reber and Evershed 2004a, b), analysis of bulk stable carbon isotope measures the $\delta^{13}\text{C}$ signature of all of the carbon in a sample. While the secure identification of the use of maize is more tenuous using bulk isotopes measures, it also allows for the detection of C4 plants when the organic compounds have degraded either due to use or diagenesis and is suitable for use where limited C4 plants exist besides maize, as in the study region. For this study, bulk stable carbon and nitrogen

isotopes were sampled from contexts with similar taphonomic histories in order to compare relative changes in resource use across space and time (*sensu* Seinfeld et al. 2009).

The signal of bulk stable carbon isotopes elucidates patterns of C3 and C4 plant use. These should reflect the relative importance of maize and manioc in the foods that Selin Farm inhabitants were cooking and consuming. It should be noted that in marine environments, there is some issue of overlap in $\delta^{13}\text{C}$ signatures between marine resources like fish and mollusks and C4 plants like maize. For the present study, it is assumed that marine resources regularly contributed to local diets in similar amounts across time and space and that increased enrichment in carbon is representative of changing plant use. This should be tested directly in the future using complementary data sets.

Absorbed residues from ceramics (n=192) from excavations were analyzed for bulk stable carbon and nitrogen isotopic signatures. A variety of forms were sampled in order to help elucidate the associations between resource use and vessel type. All shell midden contexts, representing all occupational phases of the site, were sampled. Sherds represent different vessels and no duplicates were analyzed. The analyzed sample represented 3.4% of the total sample (n=5653) of the diagnostic materials recovered during excavation (which included all rims).

Following protocols outlined in Seinfeld et al. (2009:2561), 1-2g of ceramic sample was removed from larger pieces and washed and dried at a low temperature in a drying oven. Samples were then ground in a mortar and pestle, passed through a 125 micron sieve, and pretreated in a hot bath with 3mL of deionized water and 3mL of 3N hydrochloric acid to remove exogenous carbonates. Samples were then washed until a pH of 5-6 was achieved. Once washed, samples were dried once again at a low temperature prior to being re-ground and placed in tin cups. Samples were analyzed on a Costech Elemental Analyzer (EA) connected to a

Thermo-Electron Delta V Advantage Isotope Ratio Mass Spectrometer (IRMS) (values were returned for $\delta^{15}\text{N}$, $\delta^{13}\text{C}$, C wt %, N wt %; see Appendix D) by Dr. Ren Zhang at the Stable Isotope Geochemistry Laboratory in the Department of Geosciences at Baylor University. Results are reported in the standard notation as $\delta^{13}\text{C}$ in reference to the PDB standard. Amplitude measurements reflect the approximate amount of CO_2 analyzed by the IRMS according to the relative amount of absorbed organic residue in the sample and no patterning in these signals was noted (Seinfeld et al. 2009:2561). Results were analyzed for evidence of patterns in resource use over space and time. Associations between resources, form, and wares and type-varieties were also considered. Patterns are presented for stable carbon isotopes first, followed by stable carbon and nitrogen isotopes together. Raw data are reported in Appendix D.

10.2 Stable carbon isotopes

At the broadest level of change over time between phases of occupation at the site, there is a slight decrease in the median $\delta^{13}\text{C}$ signature (from -23.65 to -24.37) that suggests decreasing presence of C4 plants in the archaeological record (Figure 10-2). These data do not suggest any evidence of increased reliance on maize as a staple crop over time, as would typically be assumed for Mesoamerican groups (Staller and Carrasco 2010). Even typical models for drivers of increasing complexity in lower Central America would imply expansionist chiefdoms being driven by an increased need for land for maize agriculture during this time period (Hoopes 1996). The data for northeast Honduras does not fit either scenario.

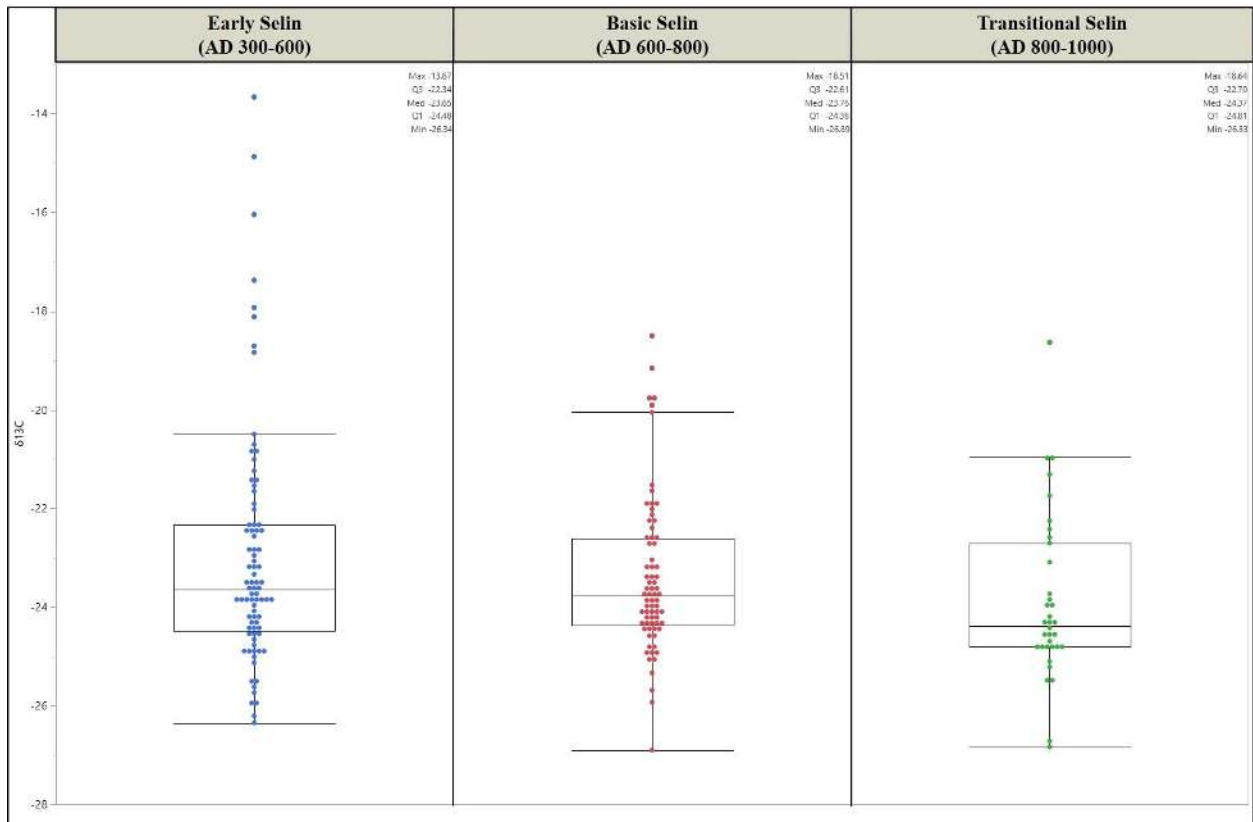


Figure 10-2 $\delta^{13}\text{C}$ values over time at Selin Farm.

This pattern holds true for all contexts (Figure 10-3), although there is some notable variation over space within the Early Selin. Mound P returned numerous outliers that were less depleted in $\delta^{13}\text{C}$, suggesting they may represent a higher input from C4 maize plants than elsewhere at the site. This coincides with the period for which there is significant influence in pottery styles from Mesoamerican groups to the north. The outliers representing increased maize points towards either ties to or emulation of norther foodways and practices, concurrent with the direction of influence present in pottery style. That these outliers are mostly restricted to Mound P suggests the hosts of that feast had northern ties that were either not possessed by the hosts of other feasts or were not emphasized in the large communal feasts taking place at Mound I during the Early Selin. It could also be the case the shift away from corn in the foodways of Selin Farm

inhabitants was taking place first at Mound I in the Early Selin, as we saw with patterns in innovations in pottery style.

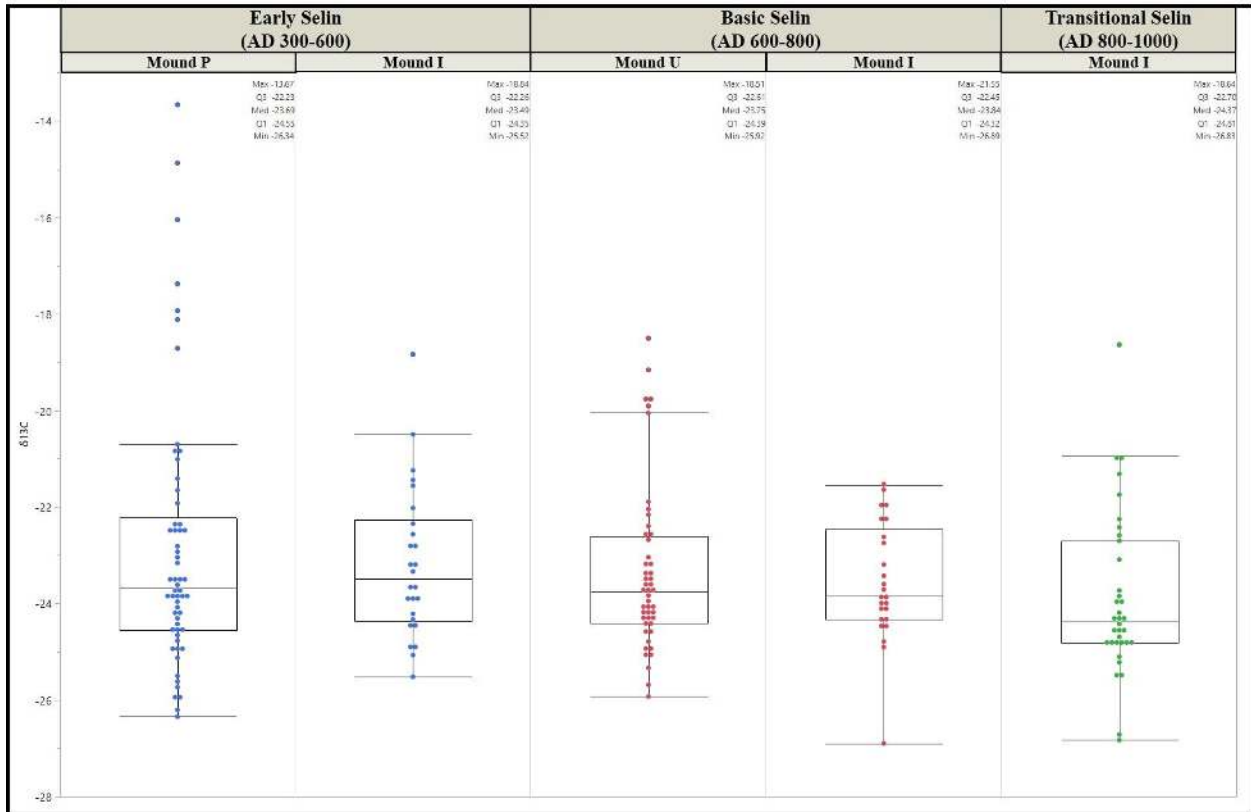


Figure 10-3 $\delta^{13}\text{C}$ values by mound and period at Selin Farm.

The pattern of decreasing $\delta^{13}\text{C}$ values is slightly more pronounced if only cooking wares are considered (Figure 10-4). This is meaningful because coarse ware cooking jars would be an essential form of technology for the steps required in the nixtamalization of corn. Nixtamalized corn is the most common form of corn used in Mesoamerica and is required in the production of traditional tamales and tortillas (see Chapter 3). Additionally, if corn is being ground and added to dishes, either stews or beverages, its detection in isotopic signatures of residues should

increase (Hart et al. 2009). If this area were following foodways trends in Mesoamerica towards the use of increased amounts of nixtamalized corn, isotopic signatures should reflect increased input from C4 plants and become less depleted over time.

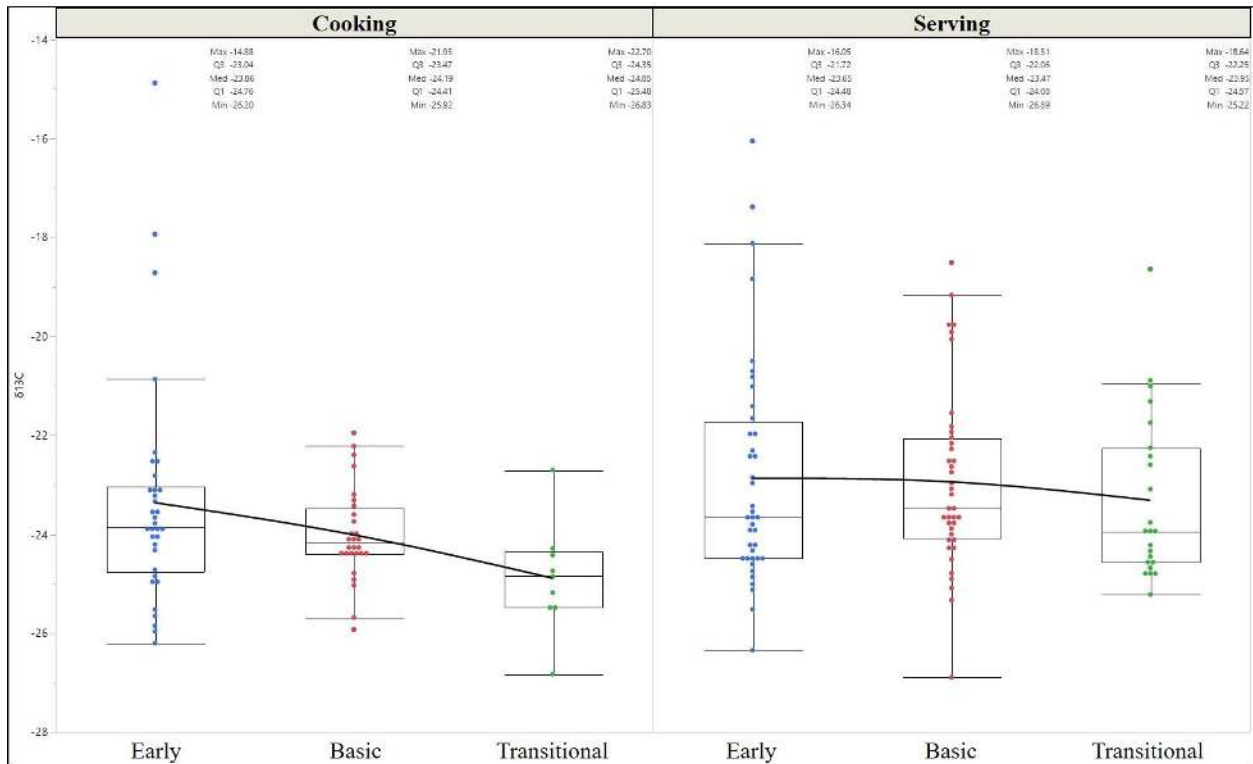


Figure 10-4 $\delta^{13}\text{C}$ signatures by vessel function and period at Selin Farm.

Because the maize signature is present in both cooking and serving wares in the Early Selin period in Mound P, it seems likely that the preparation steps involved in the dishes that included maize involved boiling. The lack of *comales* during this time period points to tamale forms being more popular, which coincides with Mesoamerican practices at this time. The more enriched signature in serving bowls as compared to jars and vases this time supports that interpretation. However, it seems unlikely that inhabitants of an area so rich with resources and

with limited evidence of reliance on agriculture would commit the extra time and effort involved in nixtamalizing corn to produce corn dough or *masa*. They likely would have relied on ground dry or green corn, as is currently used in the traditional Pech tamale (as opposed to the “nixtamal tamale” which is considered a different dish).

Over time, average $\delta^{13}\text{C}$ signatures in bowls become more enriched, suggesting these were no longer the primary form involved in serving maize-based dishes (from -25.5 to -24.3; Figure 10-5). Serving jars exhibit the opposite trend, pointing towards the increasing use of corn in beverage forms. These were likely *chicha* beverages because the grinding steps involved in the production of *atole*, *pozol*, and *pinol* would have probably produced more dramatic increases in C4 signatures overall due to the increased surface area of the corn resulting from this process. The boiling steps for these beverages, as well as nixtamalized corn of any form, also should have contributed to higher C4 signatures in the cooking ware jars that would have been used for these purposes. Even the use of whole kernel corn in stews or soups should have also contributed to higher C4 signatures. The data suggest that over time maize *chicha* was being served in jars and, by the Transitional Selin period, in small vases as individual servings, rather than in tamale form in bowls or dishes. Significantly, *comal* forms, which increase in their relative abundance at this time, were not enriched in carbon (median $\delta^{13}\text{C}$ of -25.18). These changes coincide with other significant shifts in foodways at the site and likely reflect the strategic adoption of resources and preparation techniques related to the development of signature foods in the northeast.

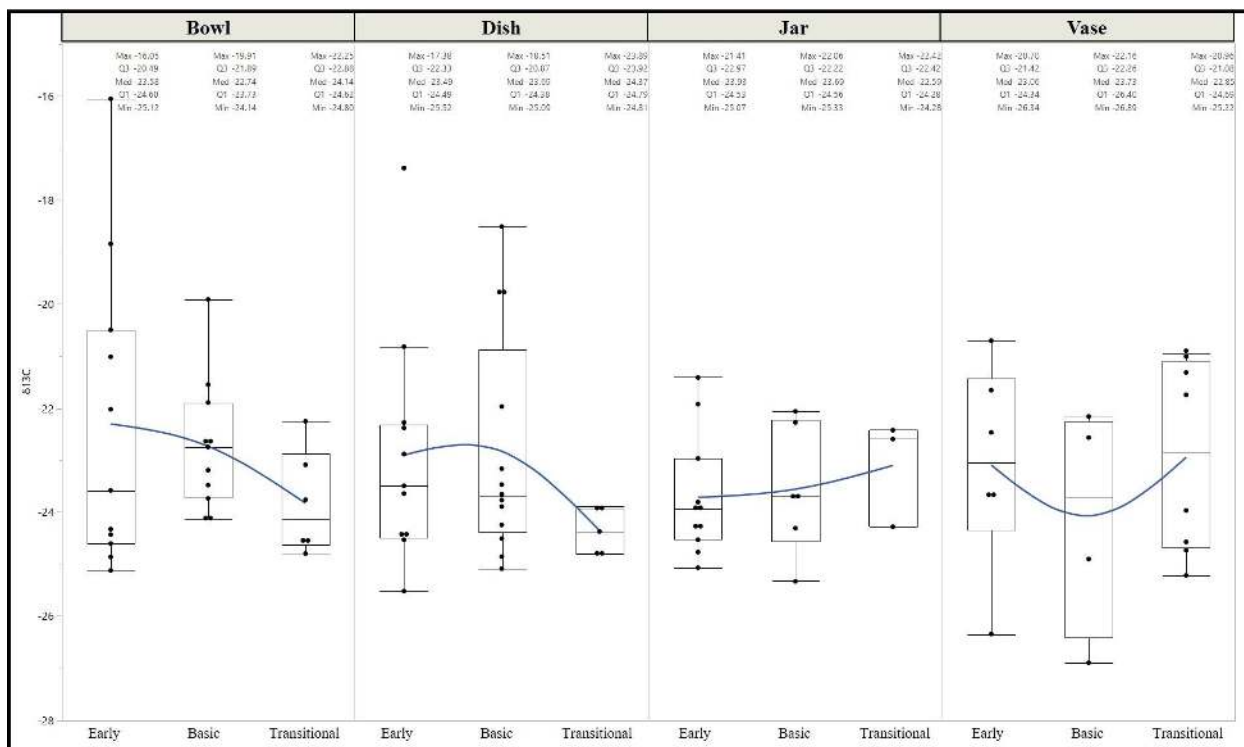


Figure 10-5 Isotopic signatures of serving bowls (n=28), dishes (n=29), jars (n=20), and vases (n=18) over time.

Finally, of the ten most enriched outliers present in the $\delta^{13}\text{C}$ data four were identified as Dos Quebradas types. These are likely imports from the interior of the northeast region and, as a painted pottery type, signal affiliation with Mesoamerican groups to the north. The maize enriched samples are separated by a considerable amount of time (Early to Transitional Selin) and space (Mound P and Mound I). This sample is too small to make any definitive conclusions, but imports (or emulations of this type produced locally) should be further tested in the future to confirm if there are patterns that directly tie maize consumption to these vessels.

10.3 Stable nitrogen isotopes

Nitrogen isotopes provide information on the contribution of meat to the residues analyzed. The additional consideration of nitrogen isotopes in conjunction with carbon allows for some conclusions to be drawn about the probable sources of these isotopic signatures. Of the analyzed samples, 51% (n=98) returned $\delta^{15}\text{N}$ signatures that were strong enough to be recorded. The other samples likely contained little to no meat in the dishes that were cooked or served in them (n=94). Designation of the $\delta^{13}\text{C}$ to $\delta^{15}\text{N}$ ratios into resource categories relies on general trends in isotopic signatures of resources from lower Central America (Norr 1996), the Caribbean (deFrance et al. 1996) and elsewhere (Beehr and Ambrose 2007; Tykot 2004).

Overall, the majority of signatures points to the preparation and consumption of terrestrial vertebrates as an important use of pottery at the site (Figure 10-6). This holds true for all time periods and contexts and was not dependent upon form, type, or ware. Overall abundance of evidence of preparation and consumption mollusks was relatively rare, which was unexpected given the amount of discarded refuse from this resource. This pattern also holds true when only considering cooking wares. This may point to a form of preparation that did not require intensive preparation (i.e., boiling) such as roasting or consumption of these resources in raw form.

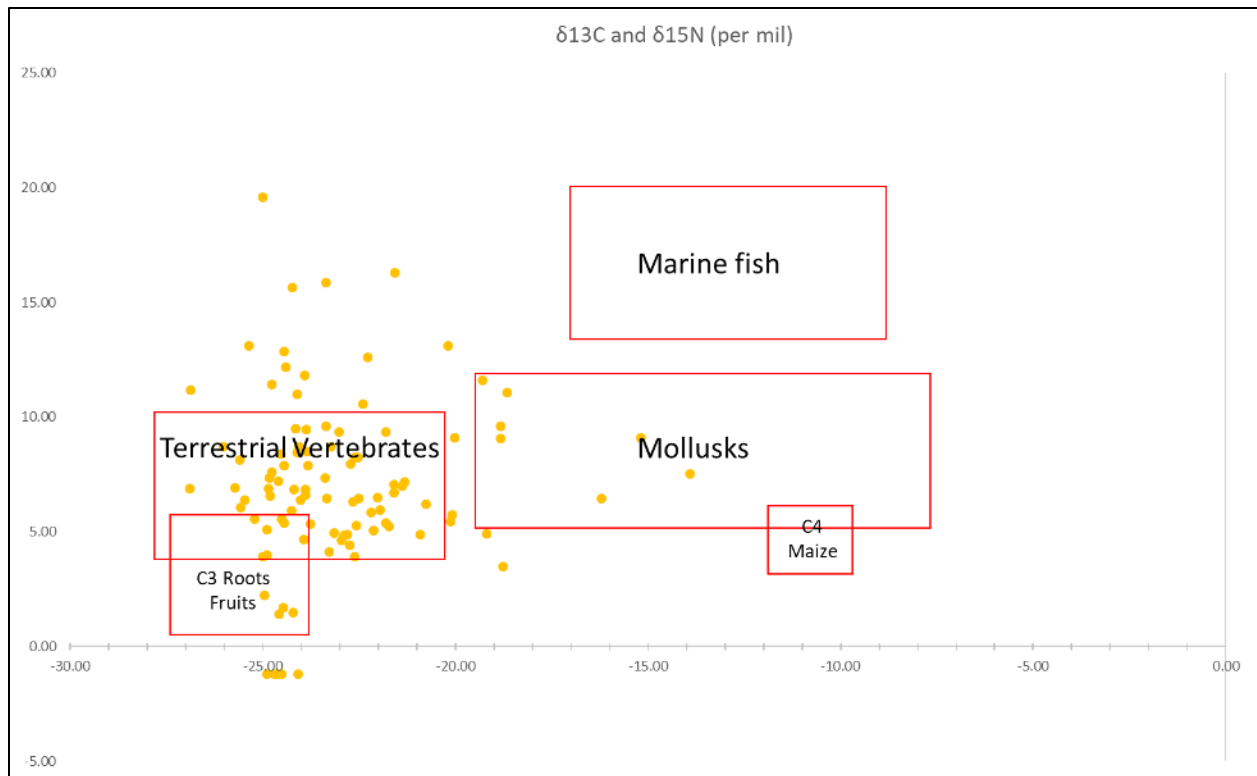


Figure 10-6 $\delta^{13}\text{C}$ to $\delta^{15}\text{N}$ signatures of samples analyzed from Selin Farm.

The diversity of resources being cooked and served changed over time (Figure 10-7) and varied spatially (Figure 10-8). During the Early Selin, a wider variety of resources were identified within Mound P than Mound I. This trend continues into the Basic Selin in all settings. More resource diversity is then seen again during the Transitional Selin period. During the Early Selin, the resource diversity in Mound P may be explained by feast participants contributing resources or by relatively small group sizes in this setting. When group size is small, preparation of food is less laborious and, accordingly, more dishes may be served and more varied ingredients used. As the group size increased in feasting events, especially in Mound I and across the site during the Basic period, hosts likely concentrated on mass production of a limited range of dishes using limited ingredients in order to feed as many people as possible. During the

Transitional Selin, however, resource diversity may be representative of an increase in “haute cuisine” (e.g., LeCount 2001), where restricted access to feasts during this time period may have included more elaborate dishes and meals suited to the tastes of an emerging elite, or the foods may have been related to changes in ritual that took place at this time, or possibly a mixture of both.

The abundance of evidence for terrestrial vertebrate consumption in the isotopic signatures of pottery from Mound U is surprising when compared to the lack of vertebrate faunal remains in this context. This could be due to differences in how animal resources were prepared during this feasting event. If more large animals were consumed, they may have been processed and butchered away from the site, with only valuable portions being brought back for consumption. The presence of deer and shark in the limited sample of bone recovered here appear to support that interpretation. In contrast with the scarcity of faunal remains, the results of our residue analysis may point to higher ranking resources being consumed in this context. This ties in well with the data on oyster and conch remains, which point to the exploitation of particularly mature specimens in this location. Alternatively, dishes that combined marine resources with C3 plants depleted in carbon, particularly nitrogen fixers like legumes, might shift the resulting isotopic signatures enough to produce a pattern that might be mistaken for terrestrial vertebrate resources. Given that there were numerous outliers within the isotopic signatures among the cooking wares that could not be identified as a particular type of resource, this should be further investigated as a possibility (Figure 10-9).

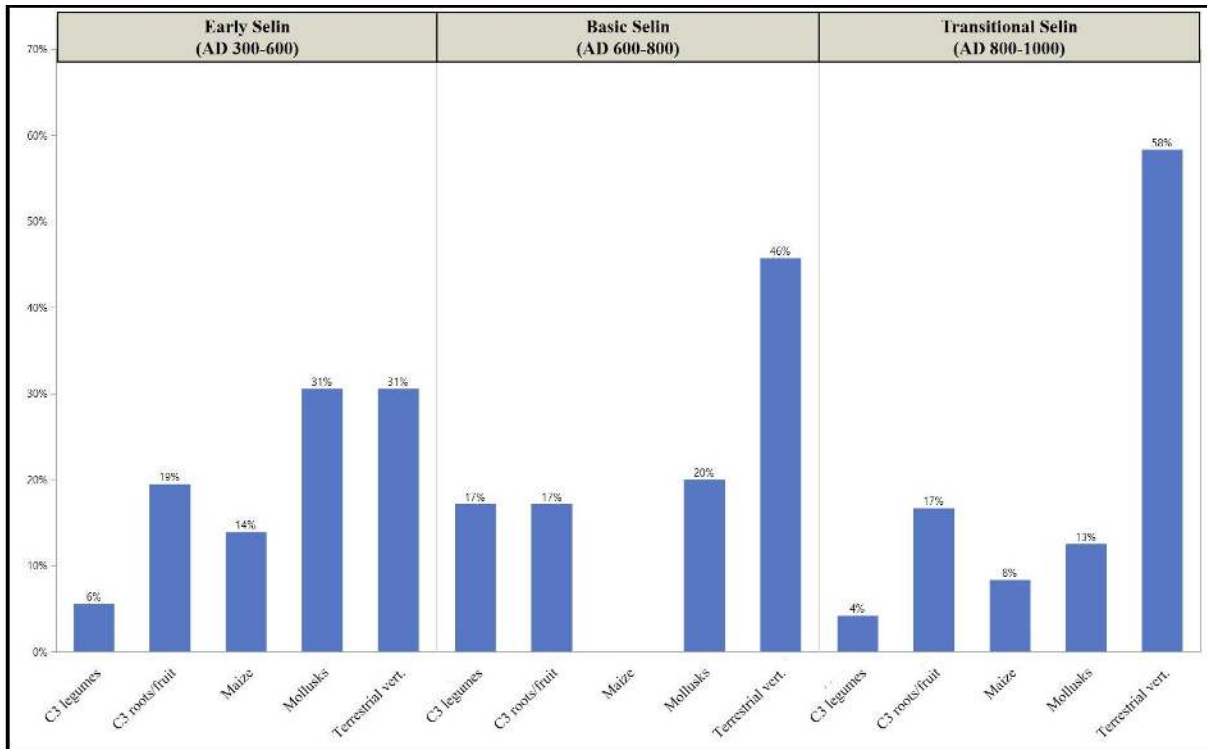


Figure 10-7 Consumption of resources over time at Selin Farm.

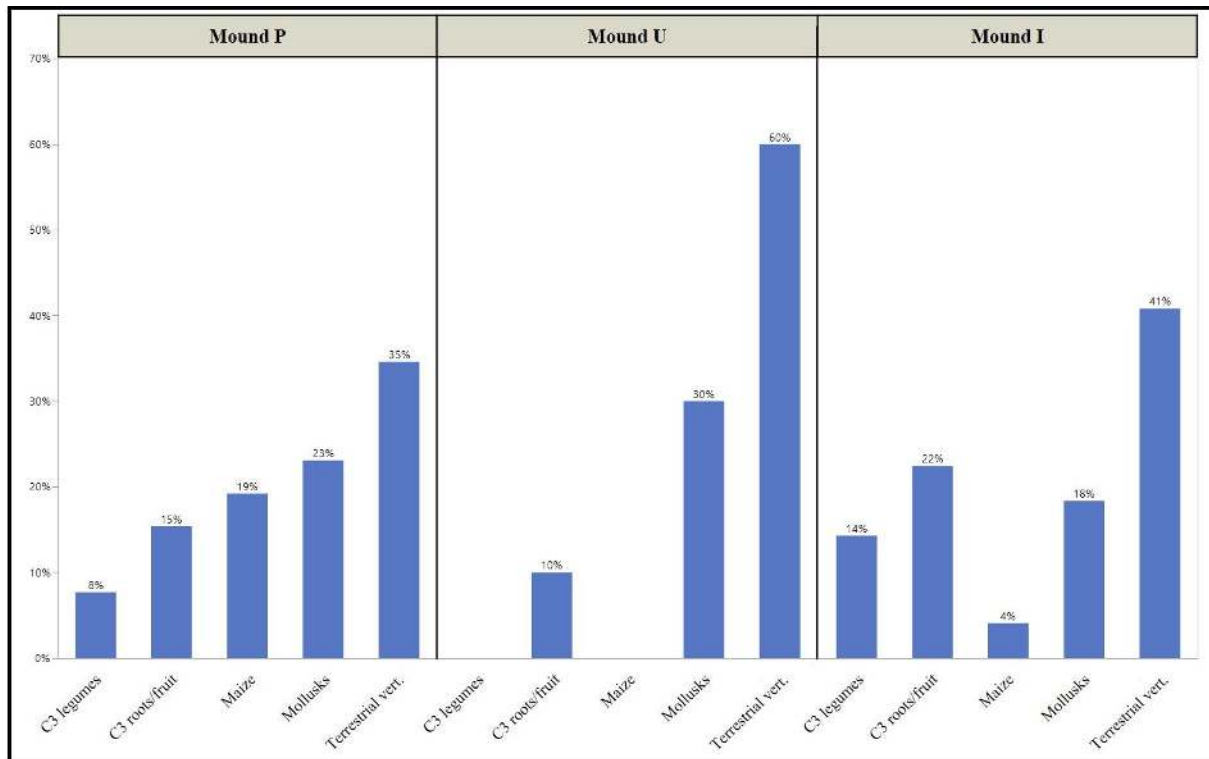


Figure 10-8 Consumption of resources over space at Selin Farm.

Isotopic signatures varied only minimally between functional groups. Cooking wares, specifically Trujillo Coarse and Chapagua Red Rimmed type jars with signs of direct boiling, are the only category of pottery that showed any considerable evidence of legume resources (Figure 10-9). This points to a consistency in the consumption of legumes (likely beans, *Phaseolus vulgaris*) in soup or stew form. Serving wares demonstrated a similar range of resources used comparative to cooking wares, with fewer unidentifiable signatures (Figure 10-10). Most vessels were likely used for the preparation and serving of a variety of resources. Some of our samples are likely also representative of vessels that were used for the preparation or serving of dishes that included multiple ingredients. In the future, cooking wares that were made and destroyed for feasting events as displays of wastage should be targeted for further analyses. Given their limited use life, these vessels have the potential to be more indicative of recipes for single dishes than others.

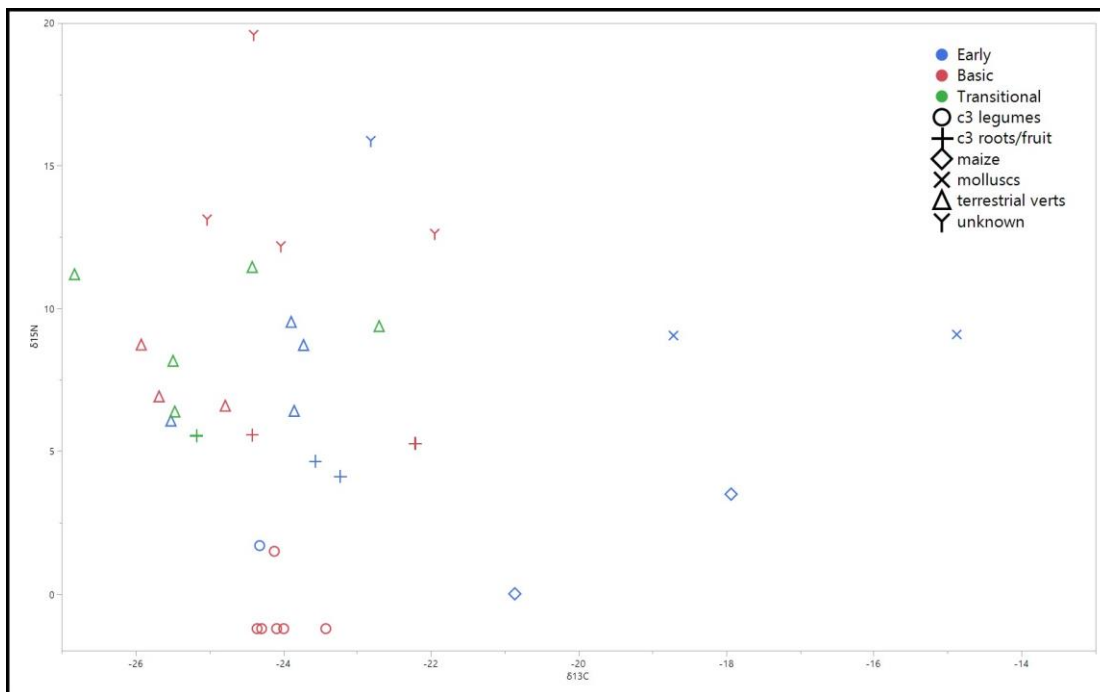


Figure 10-9 Isotopic signatures obtained from cooking wares (n=71) at Selin Farm by period.

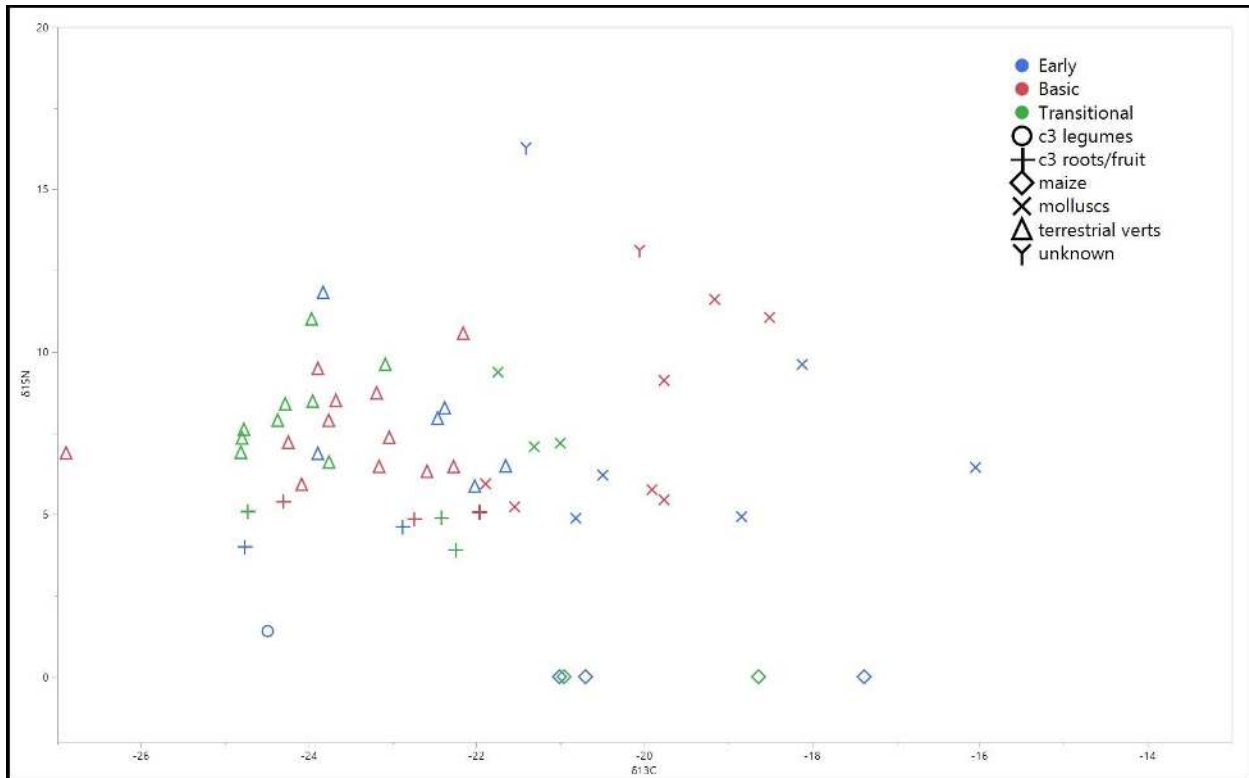


Figure 10-10 Isotopic signatures obtained from serving wares (n=102) at Selin Farm by period.

Pottery forms varied in isotopic signatures in several ways. There appears to be some correlation between dishes and the serving of terrestrial vertebrates, with over half the characterized signatures from this form categorized as such. There is also some indication that vases were associated with maize more than other forms (roughly 18% of identifiable signatures within this form category were possible corn, higher than any other form). This is counterintuitive given that vases are most abundant during the Transitional Selin, when C4 signatures are lowest. It is interesting, however, because cylinder vases are a well-known form in Mesoamerica often associated with the consumption of important ritual beverages. These beverages usually include cacao as the main ingredient, but often they also include maize (see; McNeil 2006:12; Strupp Green 2010), as does the traditional cacao-based drink of the Pech

(Griffin et al. 2009). This association should be further explored in the future using techniques appropriate for identifying these resources, as outlined below.

10.4 Summary

The analysis of stable carbon and nitrogen isotopes of residues absorbed by ceramic vessels adds new information to our understandings of pottery use at Selin Farm. Most importantly for the present research is the lack of evidence for increasing maize consumption over time. C4 plant use actually appears to have declined over time at the site from a high during the Early Selin period to an average low reached during the Transitional Selin period. In this way, foodways reflect Mesoamerican ties and influences at the same time and in the same direction as the pottery styles. No evidence for nixtamalization is present, however, as might be expected in the preparation of tamales and tortillas. Despite this, the stronger C4 plant signatures in serving bowls and dishes during this time period suggest that the preferred form of preparation of maize was likely as a solid, such as a tamale, rather than as a beverage. Together, this evidence suggests that a dish similar to the traditional form of the Pech tamale, prepared using green corn that does not require nixtamalization prior to processing may have been the most common dish at this time. In later phases of occupation at the site, bowls and dishes show less evidence of maize resources being served while jars increase in signatures that reflect possible maize use. From this it follows that maize beverages were likely being consumed in these jars. Because these signatures only increase slightly and thus show little evidence of the use of ground corn (combined with relatively low groundstone in most settings), it seems likely that these beverages were fermented. The lack of an associated rise in C4 signatures in coarse jars, which

would have been the case if there had been preparation of other corn-based beverages, supports the likelihood of this scenario.

Comales are relatively low in abundance prior to the Transitional Selin, which precludes tortillas as a likely form of preparation. During the Transitional Selin, increasing proportions of *comales* in the food preparation wares combined with no evidence for increasing corn use points to the likelihood that manioc, instead, was being prepared in forms that required roasting. The Pech traditional dish of *sasal* provides some possible examples of the varied forms that may have been made (see Chapter 3).

Most vessel types and forms exhibited evidence of multipurpose use. Of the samples that returned evidence for animal resources (n=98), terrestrial vertebrates were most abundant in all contexts. It seems that soups or stews of meat were a common dish in feasting settings. These probably contained numerous ingredients, as similar dishes do today among the Pech (e.g., *chilero*). Issues of equifinality in the isotopic signatures could be addressed through more detailed analyses of the residues, as discussed below. While evidence for mollusk preparation and consumption was found, this was not the most abundant resource present in residues. This contrasts with evidence from recovered faunal remains but may also be explained by alternative processes of preparation and consumption that did not require the use of pottery (i.e., roasting or raw consumption). A more detailed analysis of breakage and burning on mollusk remains would help address this question in the future.

Residues are a valuable source of information that provide direct evidence of resource use because of their association with pottery. Interpretations here draw heavily on ranges of carbon and nitrogen values from other areas and regions. In the future, isotopic signatures from local plants and animals should be built as a more appropriate baseline for understanding ancient

resource use in the region. Because of the level of preservation of bone and charred plant remains in shell middens at Selin Farm, many of these remains can be identified to genus or species level. This makes the site an ideal setting for a study that incorporates and compares both ancient and modern isotopic signatures of resources and their tissues, which would serve as a contribution to studies in the region and beyond (*sensu* Hastorf and DeNiro 1985; Miller et al. 2010).

Patterns of plant use can and should also be studied using starch grain and phytolith analyses on both ceramic and groundstone artifacts. These techniques have the advantage of the ability to identify specific plant resources. Compound specific isotope analyses would also be a complementary technique for the identification of plants (especially maize) and animals (Reber and Evershed 2004). Finally, gas chromatography should be used to identify cacao (McGovern et al. 2005), another important resource in regional foodways that may also contribute to understandings of local identity and practice. Biomarkers for other ingredients like honey and chili peppers would also allow us to talk about recipes (e.g., meat and chili peppers in a *chilero* dish) rather than just ingredients.

CHAPTER 11 :

DISCUSSION

At Selin Farm, shell midden mounds contain large deposits of shell, pottery, and other materials disposed of as part of feasting events that took place throughout the Selin Period (AD 300-1000). These stratified deposits are the result of repeated consumption and disposal practices that represent groups of people that came together to form a community of consumption in the past (e.g., Mills 2009). Variation across space and time in the form and content of these practices is indicative of changes to that community. In this chapter, I use data presented in previous chapters to describe and categorize variation in the feasting events at Selin Farm. By tracing the nature and scale of these feasting events over time and space at Selin Farm, this study provides data critical to situating the processes behind identity negotiation at the local level and tying the micropolitics of individual events to broader social and political changes in the region.

My discussion of the events at Selin Farm relies on models presented in previous chapters. Here I further explore how we identify and classify feasts using archaeological data in order to make productive intra- and intercommunity as well as cross-cultural comparisons (Hayden 2001; Twiss 2007). I build on the identification and description of feasting events at Selin Farm by using Kassabaum's (2014) model to categorize and compare the events at the site relative to each other. Understanding the nature and scale of feasting events over time and space at Selin Farm is critical to situating the processes behind identity negotiation and tying the micropolitics of individual events to broader social and political changes in the region. In the

final section of this chapter, I make these connections using the communities of practice framework to understand intra- and interregional interaction within and between communities and constellations of consumption in the northeast and beyond.

11.1 Identifying feasts in northeastern Honduras

Feasts vary cross-culturally and exist on a continuum with everyday, domestic consumption (Dietler and Hayden 2001; Twiss 2007). Assessing feasting behavior in northeastern Honduras is difficult because we do not fully understand what everyday consumption looked like. Many of the factors that are used to identify feasts in the archaeological record measure indicators against everyday practices, resources, and technologies (Figure 4-1). Ethnographic and ethnoarchaeological studies can help us understand the norms of community consumption among small-scale societies. Some indicators can be measured objectively by estimating standard gathering and consumption rates of particular resources (e.g., oyster). Other indicators of feasting are nearly universal or are distinguishable based on presence/absence rather than relative abundances or styles. The presence of animal remains from large, difficult or even dangerous to acquire animals, for example, likely indicates commensal eating, even among hunter-gatherers (Hayden 2001:44).

Despite a lack of data on domestic consumption for comparison, Selin Farm shell midden mounds contained numerous indicators of feasting (Table 4-1; Hayden 2001: Table 2.1; Twiss 2007, 2012). The deposition of refuse created by feasting events led to the formation of shell midden mounds, with the additional feasting indicator of “clean shell” deposits (Russo 2014). Some midden mounds contained indicators that others did not. Some contexts varied in the ways the indicators were expressed or in the timing of their expression. Despite these differences, the

data clearly indicate feasting took place during all three phases of occupation at the site both within the site core and beyond. Primary indicators of feasting activity include large, rapidly accumulated primary refuse deposits with little post-depositional disturbance within all of the shell midden mounds. Large quantities of food and pottery were also identified, using ethnographic examples to quantify these measures. Unusual qualities, types, and sizes were measured relatively between contexts dating to the same phase of occupation. Additional indicators included the presence of varied prestige and ritual items as well as the continued use of central locations and the construction of monumental architecture, including superstructures.

In the following section, feasting at Selin Farm is discussed according to measures of group size and level of sociopolitical competition independently (following Kassabaum 2014) to help understand how the form, content, and motivations for feasting varied over space and time within the site.

11.2 Categorizing feasts in northeastern Honduras

To facilitate the comparison of feasting events across excavated contexts at Selin Farm, each mound and phase was classified according to Kassabaum's (2014) model of feasting, where group size and level of sociopolitical competition are considered independently (Figure 4-2). This classificatory scheme has the advantage of helping us understand how motivations for feasting differed across space and time at Selin Farm. Through comparison of these contexts and their assemblages, we can build a picture of how identity was negotiated in varied contexts and using varied media to create symbols of identity that stood as an expression of the community of practice that made and used them together. These processes can also be tied to the broader social and political changes within which they were embedded.

Within Kassabaum’s model, each case study was given a relative score of 1 (very low), 2 (low), 3 (medium), 4 (high), or 5 (very high) for each of the indicators listed for each indicator under consideration (see Kassabaum 2014: Tables 6.1-6.2). Scores were averaged to figure the relative placement of the event along both axes, with higher numbers indicating larger group sizes and higher levels of sociopolitical competition. The same procedure was applied to each of the excavated contexts as Selin Farm with the findings presented in Figure 11-1 and Tables 11-1 and 11-2.

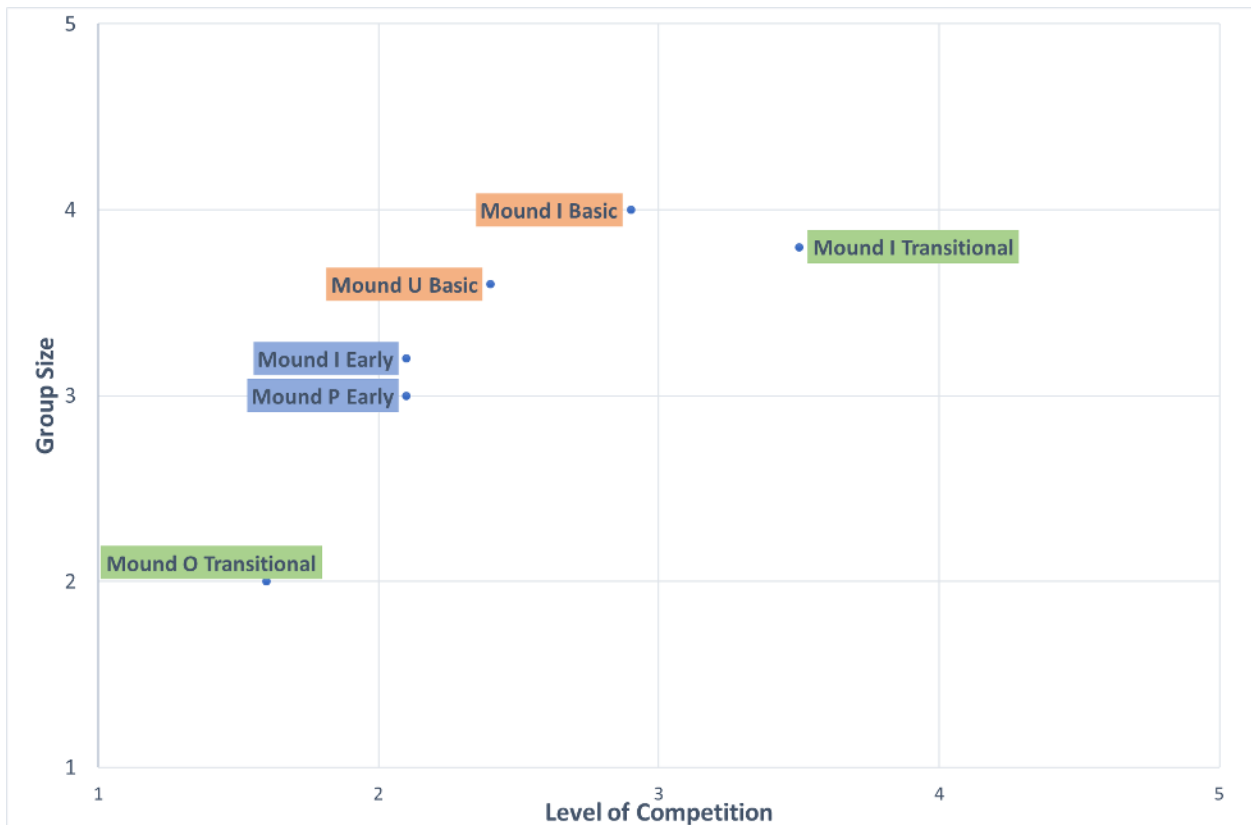


Figure 11-1 Feasting contexts at Selin Farm charted according to level of sociopolitical competition and group size.

Table 11-1 Group size indicators and scores by mound and period (scores =1 to 5, with 1 being very low and 5 being very high).

	Mound P Early	Mound I Early	Mound U Basic	Mound I Basic	Mound I Transitional	Mound O Transitional
Food quantity	4	4	5	5	4	2
Vessel size	4	4	5	5	2	1
Cooking style	2	2	2	2	3	3
Location	3	3	3	4	5	3
Monumental constructions	2	3	3	4	5	1
	3	3.2	3.6	4	3.8	2

Food quantity was assessed based primarily on the volume and weight of shell remains. Vessel size considers average rim diameter measurements of both cooking and serving wares. Cooking style takes into account the difficulty of preparation of particular foods either as related to form (e.g., griddles for *sasal*/tortilla making as being more labor more intensive than other dishes) or resources (animal meat and extra processing necessary, use of FCR, as opposed to things that can be eaten with minimal processing). The location of feasting events varies on a spectrum from open large areas like plazas to restricted access locales. Event location is tied to both because group size may restrain where events may take place, but restricted access to feasting can also serve as a strategy for creating or maintaining differential status. This is true of monumental architecture as well, which should not be uncritically assumed as an indicator of hierarchy and self-aggrandizing behaviors. Monumental constructions are often built and used as a force of inclusiveness to emphasize group solidarity and shared identity (Kassabaum 2014:323), although this association deserves further ethnographic and ethnoarchaeological consideration to understand the full range of functions of these structures (Hayden 2001:53). Here, location references the location of mounds relative to the main plaza (higher) and/or other

attributes of importance like continued reuse of a particular space and/or evidence for superstructures (i.e., Mound I, particularly by the Transitional Selin period).

Table 11-2 Competitiveness indicators and scores by mound and period (scores =1 to 5, with 1 being very low and 5 being very high).

	Mound P Early	Mound I Early	Mound U Basic	Mound I Basic	Mound I Transitional	Mound O Transitional
Food types	3	1	2	1	1	1
Preparation	1	2	1	2	3	3
Vessel types	2	2	2	2	3	1
Location	3	3	2	4	5	3
Monumental constructions	2	3	3	4	5	1
Wastage	2	2	4	3	2	1
Disposal	2	3	3	4	5	1
Prestige goods	2	2	3	3	4	1
Ritual paraphernalia	1	1	2	3	4	3
Status markers	3	2	2	3	3	1
Average	2.1	2.1	2.4	2.9	3.5	1.6

Food types include consideration of rare or labor-intensive foods, such as different cuts of meat, resources that are uncommon or hard to process and unusual cooking styles include specialized preparations meant to change the taste or appearance of food or differences such as roasting versus boiling meat. Here, food types considers resource use as inferred through stable carbon and nitrogen isotope analyses (e.g., Mound P has evidence for the use of maize while others do not) whereas preparation also takes into account how these resources were prepared and served, as above (e.g., Transitional Selin has *comales* for *sasal*/tortilla making as being more

labor intensive than other forms, with an abundance of forms likely representing different dishes, and Mound I in general has more FCR and burnt bone –indicating the roasting of animals where there is only evidence of boiling – high $\delta^{15}\text{N}$ in cooking and serving wares – in other mounds, even in the absence of bone in Mound U). For vessel types, special or high-quality vessels include fine wares, vessels with decorative styles, or trade wares. This indicator also takes into account the widespread similarity in cooking and serving wares, with some indication of private/public differences in the Transitional Selin between Mound I and Mound O. Location and monumental construction are addressed above.

Wastage and atypical disposal are often equated with status negotiation (Hayden 2001:40-41, 53; Kassabaum 2014:234; Ralph 2007:41, 44). In our case, atypical disposal might be related to ritual guidelines for disposing of feasting refuse (e.g., the importance of burying animal remains according to Pech customs) rather than evidence of competition, although the two motivations are not mutually exclusive. Scores for wastage consider the average sherd size and abundance of whole or nearly whole vessels in each context. Disposal of feasting refuse is closely tied to monumental constructions at Selin Farm.

Prestige goods are tied to status and power, although these are easier to define when associated with individuals or groups through their placement in elite burials or houses (Hayden 2001:40-41). Because most contexts excavated at Selin Farm reflect communal settings with no identified burial features, the identification of particular materials as prestige goods and status symbols is complicated. Prestige goods here refer specifically to imported items (including polychromes such as Dos Quebradas type vessels), as most other expertly crafted materials seem to have been evenly distributed across the site. There is some differentiation in status markers if personal adornment is considered as such an example. There is no evidence for marked

differences in social inequality in the form of elaborate burials or site hierarchies in the region at this time (Healy 1984b) and I would expect that status was, for the most part, achieved and not inherited for the majority of the history of occupation of the site.

11.3 Feasting at Selin Farm

Using the tables above as a guide, I outline below the similarities and differences in the content, form, and likely motivation of feasts at Selin Farm from AD 300-1000. I draw on data from previous chapters for supporting evidence.

11.3.1 Early Selin (AD 300-600)

During the Early Selin, inhabitants of Selin Farm lived atop a cluster of clay platform mounds with domestic structures at their summits (Figure 11-2). Feasting took place in groups that likely included all inhabitants of the village plus some from neighboring hamlets or communities. Most feasting took place immediately south of the residential area of the site. Feasting practices at the site varied in materials but were consistent in form. Mound P included the use of maize resources not identified elsewhere at the site at this time. Mound I included a rich faunal assemblage that exhibited signs of roasting, including burnt bone and shell and dense amounts of FCR within its deposits. In contrast, the faunal assemblage in Mound P was diverse and many bones were modified to serve as markers of status. Evidence for roasting is not apparent. Both mounds contained little ritual paraphernalia or prestige goods beyond fine ware pottery, some of which were imports. Ornamental items such as bone and shell beads suggest men and women both took part in feasting activities.

Cooking wares demonstrate considerable variability as opposed to later time periods, suggesting participants in these feasts may have contributed to food preparation and disposed of some portion of their existing domestic assemblage as feasting refuse. Wastage and disposal were clearly indicative of feasting but not at levels seen later in time. Mound I, importantly, was only slightly larger than other Early Selin period mounds. A greater abundance of painted pottery was found in Mound I during this period relative to Mound P but I interpret this as a slight difference in the timing of the events given that the San Marcos Polychrome forms found in Mound I more closely resemble Basic Selin examples than do those of Mound P. Overall, feasting across the site at this time seems indicative of efforts to increase group solidarity. It was inclusive of all inhabitants at the site and although there were differences in materials, these were used in communal settings with no clear association between any particular household and specific feasting refuse deposits.

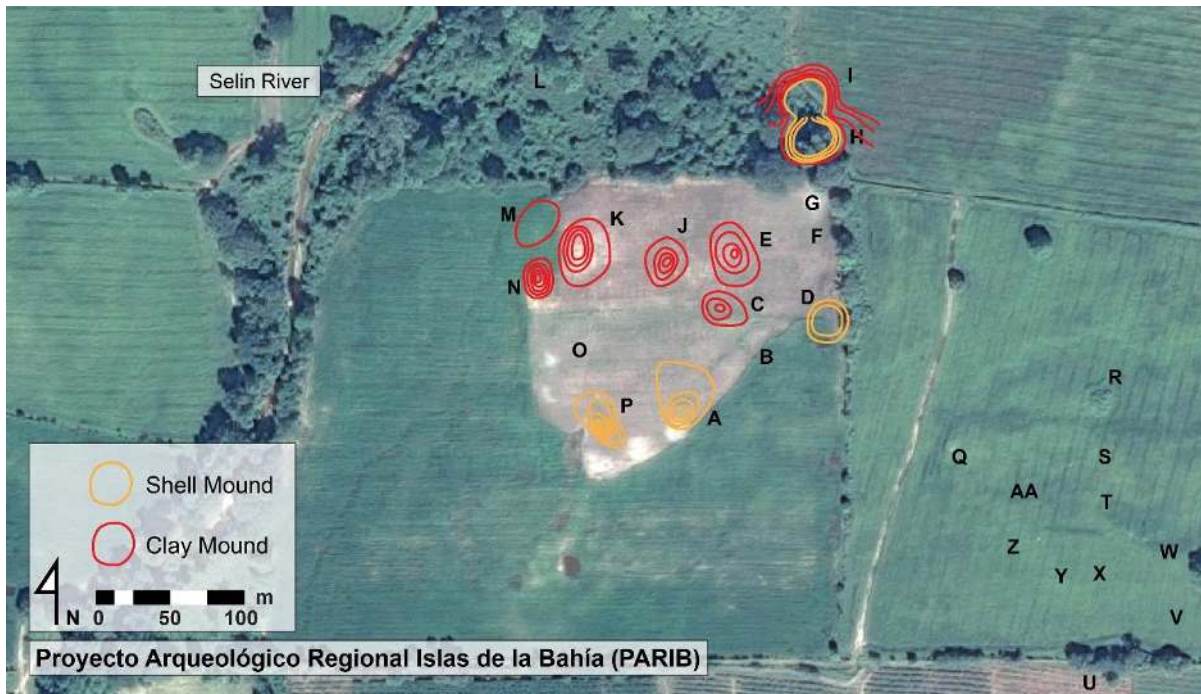


Figure 11-2 Settlement at Selin Farm during the Early Selin period.

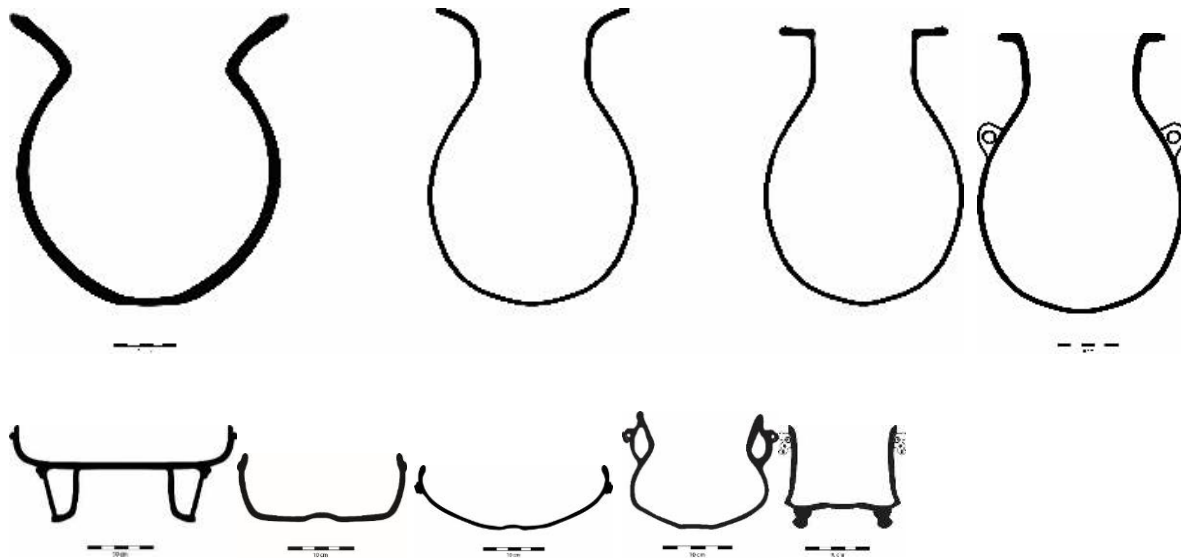


Figure 11-3 Early Selin ceramic assemblage.

11.3.2 Basic Selin (AD 600-800)

During the Basic Selin, the site expanded considerably, likely representing an increasing population both here and throughout northeastern coastal settlements (Figure 11-4). Multiple clay mounds, presumably with residential superstructures, were constructed to the east of the site core. At this same time, several shell midden mounds were also formed. Radiocarbon dating of these mounds suggests this expansion took place rapidly and most of these mounds were deposited over a relatively short span of time (Reeder-Myers and Goodwin 2019). Group size represented by the deposits in the mounds to the east increased slightly at this time, probably reflecting increased local populations. Competition among the hosts of feasting events that took place outside the site core, which is where the majority of Basic Selin feasts took place, increased relative to the Early Selin. This is most notable in the vast quantity of shell deposited during this phase of occupation at all contexts across the site. There was no indication of meat roasting in Mound U, as there was again for this time period in Mound I. In fact, little bone was

recovered, contrary to stable isotope analysis suggesting that cooking and serving wares contained isotopic signatures indicative of terrestrial vertebrates. Clearly there was a difference in meat preparation as there was in the earlier phase of occupation, where most meat outside of Mound I was boiled. This points to differences in food preparation activities between feasting contexts, specifically that certain preparation techniques like roasting may have been limited to the large supra-community events taking place in and around Mound I. The absence of shell beads in this context suggests that the role of women in this event was lessened compared to Early Selin settings.

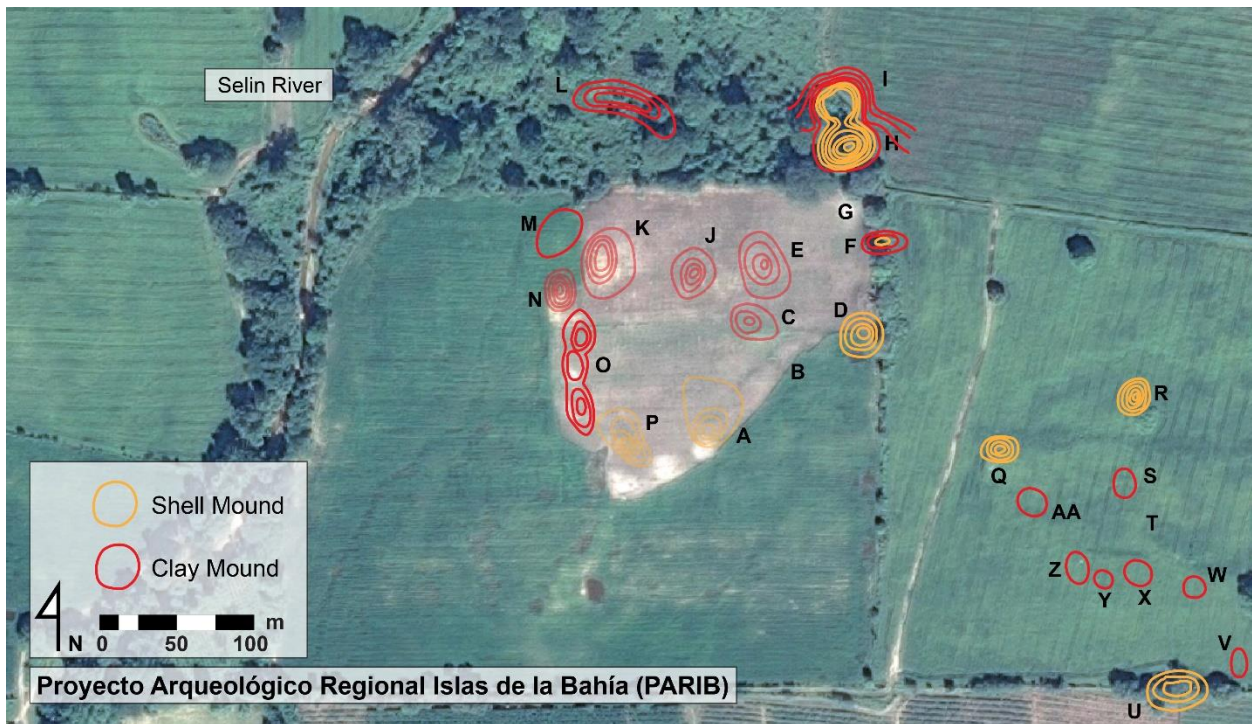


Figure 11-4 Settlement at Selin Farm during the Basic Selin period.

Wastage and disposal differed between the excavated contexts as well. Mound U deposits contained numerous nearly complete and two whole vessels. In Mound U, clean shell was much

more abundant and representative of larger oyster specimens than anywhere else at the site during this or any other phase of occupation. I argue that this represents differential access to or knowledge of estuarine resources but also that these resources were sustainably managed despite increasing populations. I also believe that Mound U deposits represent not only an increase in the scale of the feasting event but also changing roles for the hosts of the feast as well. Ceramic utilitarian or cooking wares in this deposit are made primarily from a single paste (Aguilera 2019). This suggests that rather than borrowing or relying on participants to help contribute vessels for these events (Hayden 2001:48), hosts were producing mass quantities of pottery themselves through the mobilization of labor (perhaps relying on their household or lineage). This is an aspect of feasting wastage that is not considered by existing models or classifications but presents an intriguing line of evidence to further elucidate the roles of a host.

This scenario parallels what Sanger (2015) found in southeastern U.S. Archaic period shell mounds, where he was able to identify distinct potting communities that were associated with each ring mound. This ties in with increasing displays of status through wastage, but it also suggests there was a reorganization of feasting roles and responsibilities that allowed individuals, specific households, or lineage groups to play a larger or more central role during the feasts that resulted in the formation of Mound U. Whereas wastage was previously incurred by all participants in the feast, the burden had shifted to the hosts in this context. Hosts likely called on their social contacts to help fulfill these new obligations, which provided a material reflection of their level of support within the community (Dietler 2001:81). However, there is still little evidence of lasting differences in domestic or residential units at the site, and no evidence for elite burials is known for this time period. Gains in status were relative to others and not absolute, and the ability of all members of the community to participate in these same kinds of

displays – as we see through the rapid formation of numerous mounds in this area of the site within a short time span, all with similar materials and of a similar size – maintained the balance of power within the community. The rules were the same for all members of the community and solidarity was still the central emphasis of these feasts.

Mound I deposits rivaled those of Mound U in size but not in quantity. However, it is during this phase that the purposeful construction of the former mound becomes clear. Sediment was mixed with shell at a much higher ratio than other mounds with the result of creating both a larger and a more stable mound. There is evidence that this change was linked to the introduction or elaboration of ritual and a likely change in the form of feasting in Mound I to a work-party type feast that mobilized the labor needed for its construction (Dietler and Herbich 2001). Beyond new ritual implements, there is no discernable difference in the material content of feasts across space at this time. The SMP vessels that appeared in new forms and sizes during the Early Selin in Mound I expanded in use across the site and were found in high quantities in both excavated contexts. This suggests that the setting of Mound I served as a sort of conduit through which new styles or forms were introduced into the community. This communal setting was the center of innovation – where brokers brought boundary objects (Wenger 1998) to submit them to processes of negotiating meaning before their eventual integration into the local repertoire of pottery forms and styles. In this case, this transformation appears to have included a shift in how this pottery style was used. These new forms and sizes include a florescence of San Marcos Polychrome: Moradel Variety bowls (Figure 11-5). Large San Marcos Polychrome: San Marcos jars became the preferred form for serving wares of this type. These changes coincide with a decline in the evidence for use of maize at Selin Farm, suggesting these new foods and beverages may have been manioc based and likely included fermented *chicha* for feasting events.

Additionally, both Basic Selin contexts exhibited evidence of increasing association with groups in lower Central America to the south in the form of incised and modeled pottery, though still in relatively low abundances. There were other indicators of these ties in the form of greenstone beads – tied to the south in both source and in symbolic meaning of the “axe-god” shape – and, in one instance, a *chicha* beer skimmer (see Chapter 9). The overall picture of feasting at Selin Farm during the Basic Selin is one of increasing competition and the addition of the work-party feast as a new, but still cohesion-centered, form of feasting. This new form did, however, include opportunities for the advancement of individuals and groups in that it allowed for ritual and monumental architecture, which required both knowledgeable practitioners and skilled community organizers. It seems likely that the motivations and goals behind this new type of feast included growing or maintaining inter-community alliances, which would have also afforded hosts a measure of culturally acceptable ostentation that would have been perceived as bringing status to the community as a whole (see elements of empowering feasts in Dietler 2001:80-82).

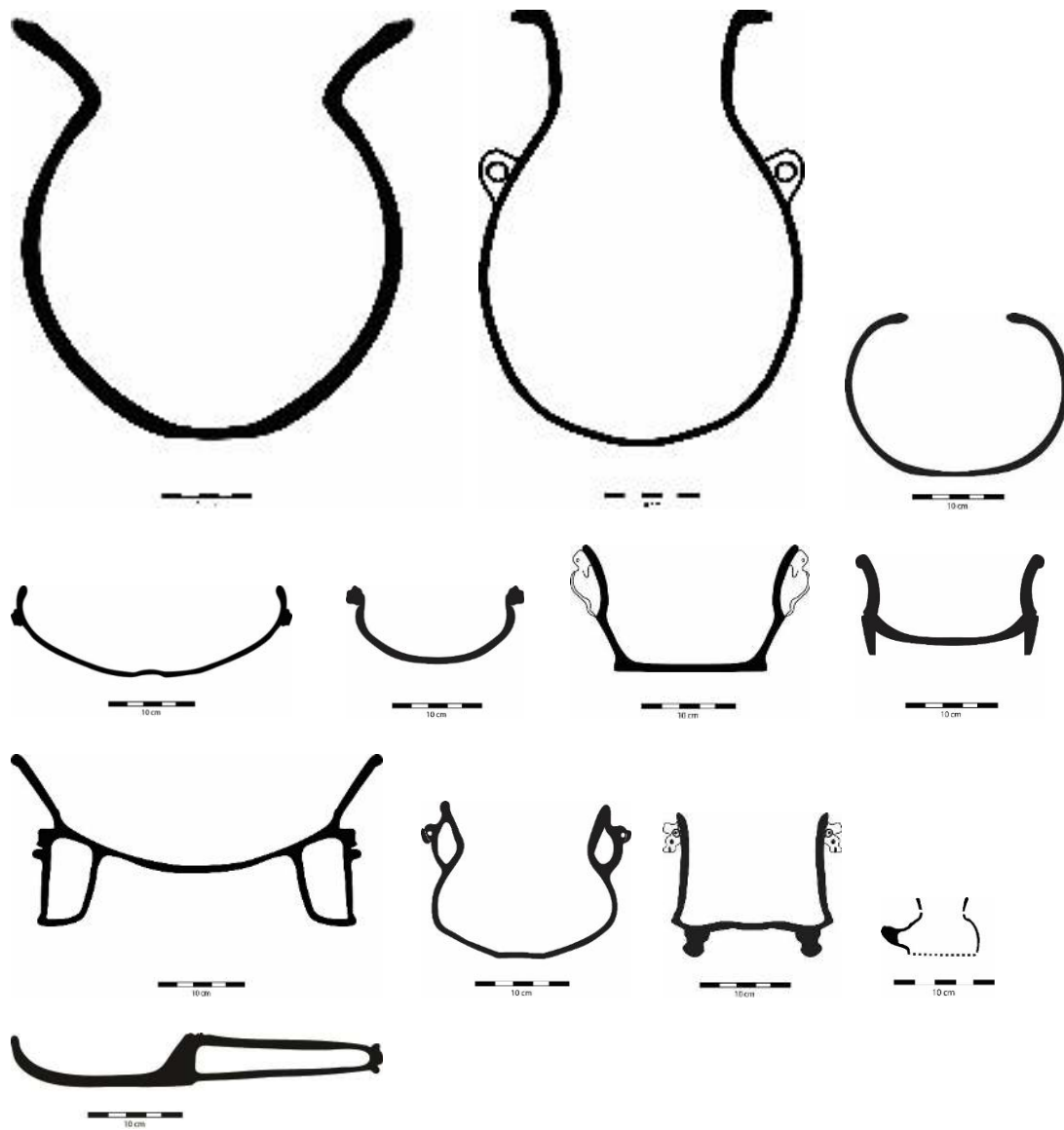


Figure 11-5 Basic Selin ceramic assemblage:

11.3.3 Transitional Selin (AD 800-1000)

As the name implies, the Transitional Selin was characterized by change. My research demonstrates that this change was more profound than shifts in ceramic style. It included major reorganizations of the settlement at Selin Farm (Figure 11-6), a marked change in feasting forms and goals, and significant changes in foodways across both public and private settings.

Settlement at the site retracted into the site core at this time, with evidence for domestic occupation of only a single mound – Mound O. The form of domestic architecture shifted to include long-house style platform mounds, which continued into the later Cocal Period, presumably with a change in the ways in which households were organized (Healy 1978b). Group sizes fell slightly within the events represented by Mound I deposits, with a decrease in both food quantity and vessel sizes. Closer investigation of these changes suggests serving wares in particular were made smaller than before. Cooking vessels, in contrast, demonstrate an increased investment in feasting, with the appearance of large vessels appropriate for either very large quantities of food or very large groups (Hayden 2001:48).

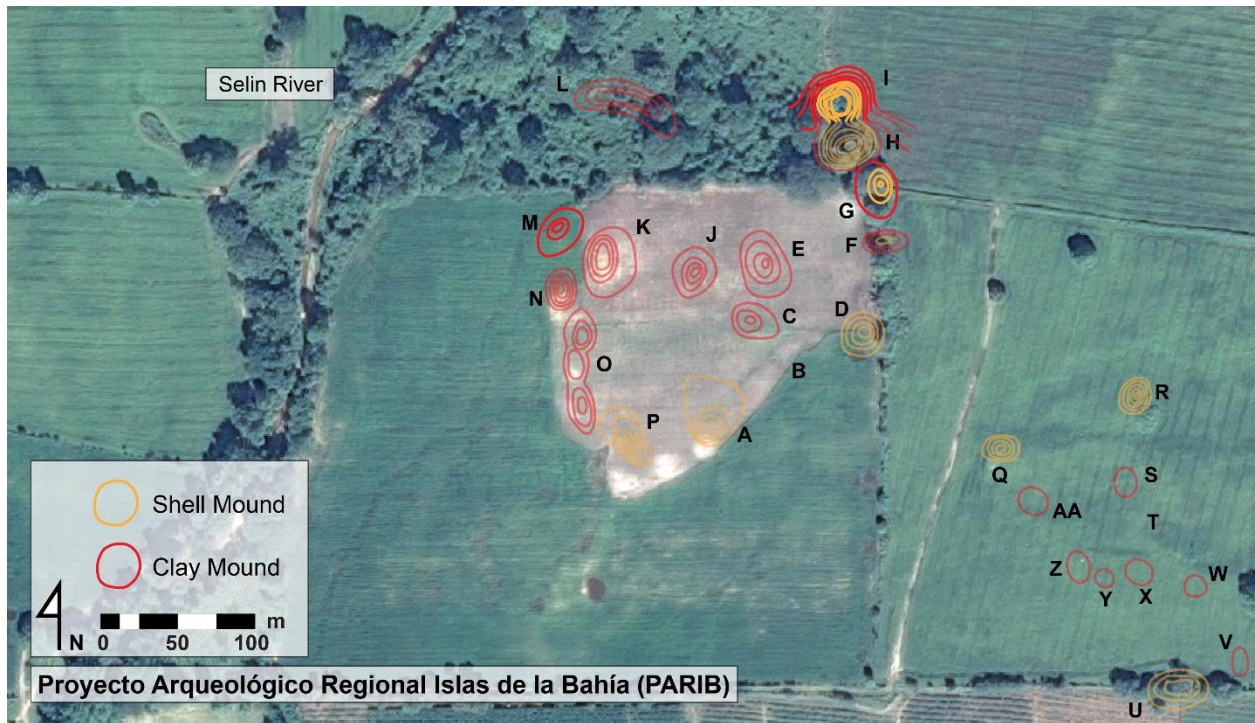


Figure 11-6 Settlement at Selin Farm during the Transitional Selin period.

Decreased density of materials within Transitional Selin deposits is countered by the large surface area over which they are spread in Mound I. Construction of the last phase of Mound I must have required a considerable mobilization of labor to move the amount of dirt compiled in the now over 4m tall and nearly 60m wide platform mound. This implies the continued use of work-party feasts to amass the group size necessary for this effort. The decline in ceramic materials, both in size and in quantity and notably a drop in the ratio of cooking to serving wares, suggests two significant changes – that at least some of the preparation of feasting foods was taking place elsewhere, and that there were increasing differences in how people were consuming foods, with a smaller proportion of participants using the ceramic serving vessels found in these deposits. While most feasting attendees would probably have used portable (and perishable) gourds, that difference seems to have become a marker of status during this time period. This is supported by the fact that despite increasing populations across the area, ceramic production seems to have declined and painted pottery, in particular, is found only in select contexts and ceremonial caches by the Cocal Period (Cuddy et al. 2020; Healy 1984b; Strong 1935).

At Selin Farm, painted pottery continues to be used during the Transitional Selin period but in smaller quantities than before. It is present in association with ritual items such as censers and obsidian blades, and new styles and forms in Mound I but it retains traditional forms and seemingly similar functions (Figure 11-7). At this time these items were also found for the first time in association with a specific domestic structure, Mound O. Of note, however, is the fact that San Marcos Polychrome jars are restricted to Mound I. The meaning of this difference is unclear, but it does point to restrictions on certain forms, and likely certain foods or dishes, between public and private spheres. This coincides with the first evidence for restricted access to

ritual as well, evidenced by the construction of a wattle and daub superstructure at the summit of Mound I.

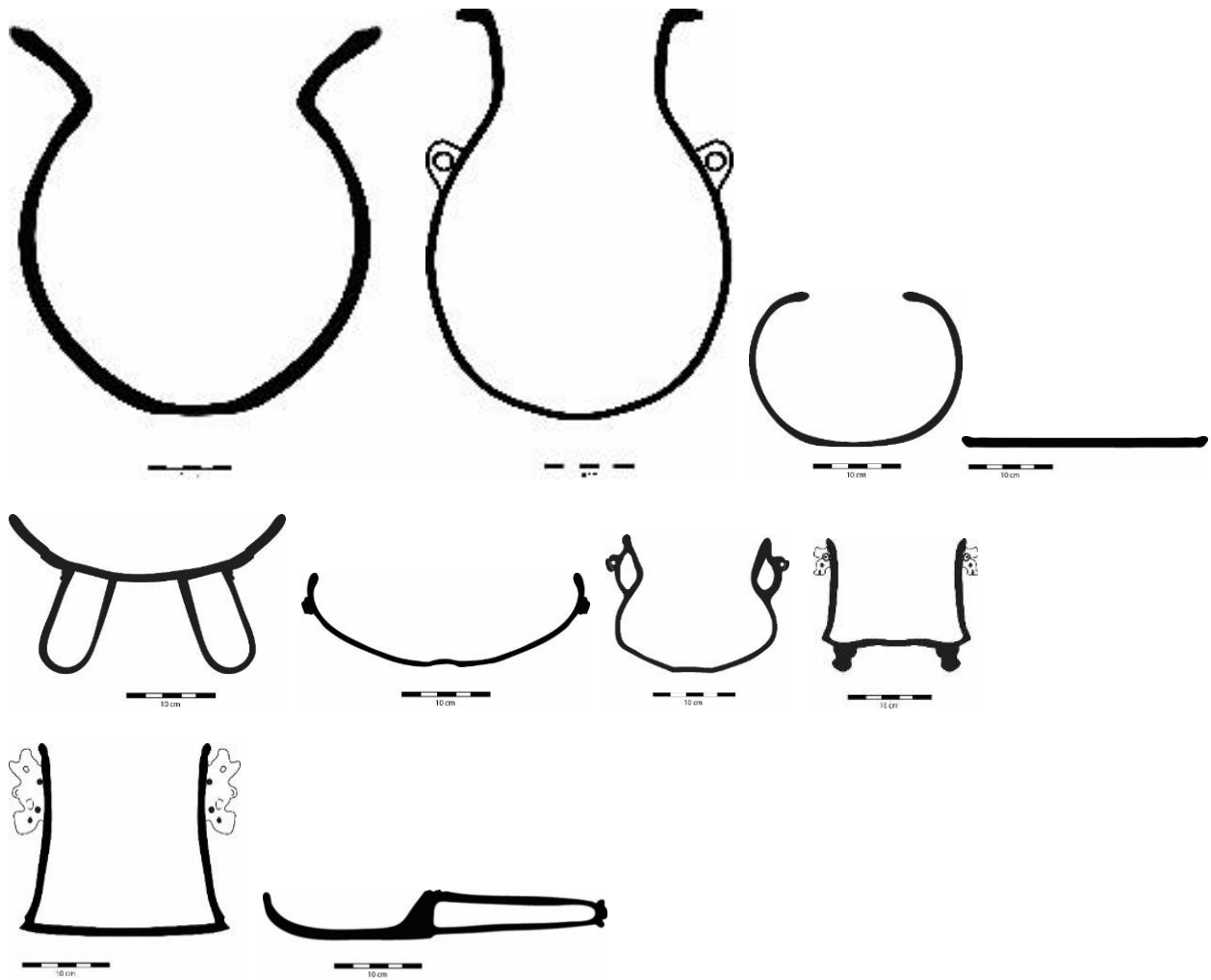


Figure 11-7 Transitional Selin ceramic assemblage.

The similarity in materials between Mound I and Mound O suggest that a particular segment of society (likely a particular household or lineage tied to Mound O, the only documented Transitional Selin period residential structure at the site) acquired or was granted

permanent responsibility for the organization and execution of events taking place at the summit of Mound I. Rather than representing an inherent shift towards increasing competition, however, these feasts probably represented a communal acceptance of the need to continually manage ritual activities and the recognition of a spiritual leader or leaders to act on behalf of the community in this role (i.e., the continual host in patron-role feasts, Dietler 2001:82-83 or an example of the, “compromise of egalitarian ethics in a socially acceptable manner” according Wells 2007:51). Competition only appears to have increased incrementally, with the addition of some new prestige goods (i.e., obsidian blades from Mesoamerica) in small quantities and still without reference to individual status beyond ornamental/costume elements that were in line with previous traditions.

Importantly, there is no evidence for rare, expensive, or exotic foods or ingredients that would imply the development of “haute cuisine” (LeCount 2001) in the ritual practices that took place at the summit of Mound I, or in the scaled down version of these practices at Mound O. This is characteristic of all feasting at Selin Farm, wherein the goals and motivations as well as the forms or types of pottery vessels may have shifted over time and space, but the general content of the feast does not significantly vary across contexts within a phase of occupation. This is typical of solidarity-building feasts that emphasize group cohesion (see above, Kassabaum 2014). Identification of this type of feast at this scale is rare in the archaeological record but the present discussion was aided by applying the model outlined above. Because of the consistency in the use of resources, technologies, and practices at the site, it seems likely that feasting practices reflected everyday foodways scaled up to the level of the event.

Continuity, however, does not imply the absence of change. During the Transitional Selin period there is evidence for a new style of food preparation at Selin Farm. Ceramics *comales* or

griddles are first found in abundance at this time. Around this same time in Mesoamerica, maize tortillas increase in popularity (Cheetham 2010:349). Evidence from Selin Farm suggests that a similar change in foodways was occurring in northeast Honduras. Stable carbon isotope analysis of pottery residues, however, point to manioc rather than maize forming the basis of the diet. Instead of adopting foreign foodways, northeastern groups solidified their cuisine as a symbol of their identity based around the continued consumption of manioc as their most significant signature food. This draws on long-standing cultural ties to lower Central American groups to the south. That this shift is so apparent in this border area suggests that it was a statement about group identity that was actively built by local actors. In addition to focusing on a staple crop, it appears that manioc tortillas or *sasal* became a signature dish that represented the community. That this occurred at the same time as the development of maize tortillas suggests it was partly as a result of interaction with groups to the north that both spoke to cultural understandings and similarities while also highlighting differences and reinforcing boundaries.

Signature foods (see Gasser and Kwaitkowski 1991: Chapter 4) are prominent elements in a food tradition that are symbolic within a community, often relying on a signature staple food or a combination of ingredients in a particular dish. The distribution of signature foods both embody and drive community identity, as well as serve to clarify cultural boundaries (Hastorf 2017:232-233). Transformation in cuisines tend to occur during times of social and political upheaval or as a result of population migrations (Appadurai 1981; Douglas 1984; Hastorf 2017: 71, 246; MacBeth and Lawry 1997:4; Powers and Powers 1984). These changes can vary from the adoption of new ingredients to changes in the structural rules within food traditions (i.e., dish combinations or, “what makes a meal”; Logan 2012; Morell-Hart 2011). In this way, foodways can exhibit subtle changes in society that are not expressed through other means (Hastorf

2017:69). The examination of foodways at Selin Farm has added both the recognition of the development of a signature food (manioc) and dish (*sasal*), as well as a view into how these elements were embedded within dynamic social and political negotiations of identity. Together, these new understandings highlight, for the first time, internal heterogeneity within a northeastern community that help us explain processes of change without relying exclusively on external forces, while also not denying their influence in shaping local change.

The study of identity negotiation at Selin Farm demonstrates that aggrandizers, expansionist chiefdoms, or outside influences were not responsible for cultural change in the small-scale societies of Central America. The people who lived and feasted at the site were not passive recipients of innovations from the north or the south. There were complex internal social and political strategies being employed that led to the structural changes that took place in the region. Through interaction with each other and with outside groups they continually were guiding the formation, maintenance, and transformation of tradition. Symbols were given meaning through tradition and often those elements came together in the powerful arena created by the community feasts described here.

11.4 Identity, style, and foodways at the border

While previous studies in northeast Honduras aimed to highlight the active role of local groups in the shift of affiliation from north to south over time, these perspectives were missing key elements of those processes. When pottery style is combined with information on the use of that pottery as part of a foodways system – encompassing resources, other technologies, and practices – we can truly start to understand how these materials were brought together in the negotiation of identity. Pottery styles suggest widespread homogeneity in northeastern foodways

traditions (Cuddy 2007). Pottery form and size, the resources with which they were paired, and the practices in which they were embedded tell a different story.

We learn from including contextual analyses that the northeast developed a community of practice centered around consumption in feasts that began early during the occupation of Selin Farm (ca. AD 300). This community of consumption was connected to others throughout the east and northeast parts of Honduras that shared similar traditions of pottery production (and presumably consumption practices given similarities in form and size) in places like San Marcos, Dos Quebradas, and Chichicaste. This broader northeast constellation of practice was articulated with others to the north, producers of other painted pottery traditions of Honduras, and to the south to more nebulous lower Central American traditions. These ties were closest with west-central Honduran traditions (i.e., the El Cajon Region) during the Early Selin period (AD 300-600) as evidenced by shared pottery traditions that encompassed both serving and food preparation wares. There is also indication that this region shared feasting practices as a widespread occurrence among all segments of society, which contributed to the building of alliances both within the northeastern constellation of practice and beyond it. These ties were channeled through boundary objects like painted pottery styles, which were introduced to the community through brokers that had direct interactions with other groups.

Rather than passively reacting to changes along the southeastern Mesoamerican border at the end of the Classic Period (AD 900), we can see that styles and forms, although retaining their veneer of Mesoamerican motifs, shifted at the beginning of the Basic Selin period (AD 600-800). This also coincided with an unexpected decrease in, rather than intensification of, maize use at Selin Farm. While previous interpretations were correct in that these groups shifted their focus to the south, they overlooked the early timing because it was subtler in foodways than it was in

ceramic style. Foodways shifted first, away from Mesoamerican traditions, likely emphasizing instead the preferred staple crop of manioc. Serving wares emphasized large jars, most likely for the serving of fermented *chicha* drinks made from manioc instead of maize.

This period also marked the beginning of internal differences in how identity was negotiated at Selin Farm. While feasting apparently existed at multiple scales in the Early Selin period, populations during the Basic Selin added an additional form of feasting that entailed supra-community work-party feasts (Dietler and Herbich 2001:241) that resulted in the construction of monumental architecture at the site. Hosts of this type of feast included elaboration upon existing rituals (bringing in incense burning) that was not seen elsewhere at this time. Other feasts within the community appear to have been competitive but were constrained by social rules about ritual that kept gains in status and power relative (Dietler 2001:77). Boundary objects and the broker status of those who wielded them were channeled through communal settings where their status-enhancing value was shared. The elaboration of ritual, however, had lasting effects on social status as the roles associated with rituals were fulfilled by figures with the appropriate knowledge and, unlike resources, this knowledge was limited and restricted. The shift from being a periodic to a continual host took place within the ritual arena where temporary gains of symbolic capital were already tolerated by the community (i.e., patron role, Dietler 2001:82-83).

During the Transitional Selin period (AD 800-1000), styles shifted more dramatically to the south, as others have noted, but at this time we also see the introduction of new preparation styles of manioc (in tortilla form, *sasal* in Pech) that mirror but not mimic developments to the north. These styles are present in both public and private settings. I interpret this change as the solidification of a northeastern cuisine centered on the elaboration of dishes in which manioc is

the signature food. That styles – both design on ceramics and the foodways encompassing preparation and serving – shift at the same time and across public and private settings indicates that corporate identity strategies employed both. Underlying similarities in both styles suggest the continuation of traditions from earlier time periods. Their continued combination in feasting settings suggests that both maintained their centrality in identity negotiation as well. As our model demonstrates, despite the continuation of practices that still incorporated everyday resources and pottery, the social goals of feasting had changed. Exclusivity was tied to the only socially acceptable setting for internal differentiation in the society – ritual associated with communal feasting. Those who previously organized communal feasts periodically became tied more intimately to rituals taking place in monumental structures, their roles becoming more entrenched.

These changes were likely both reflective of and implicated in increased social inequality across the region that could no longer be confined within corporate groups and that were, most likely, effective strategies because of their use of long-standing communal traditions of group identity and cohesion rooted in foodways and feasting. This is true in the abstract but also in the most literal sense, as the single ritual structure at Selin Farm was built atop the largest existing artificial feature at the site – a mound built up over centuries from the refuse created by communal feasts.

The study of identity negotiation at Selin Farm demonstrates that we cannot assume aggrandizers, expansionist chiefdoms, or outside influences were responsible for cultural change in the small-scale societies of Central America. There were internal, social, political, and religious strategies being employed by individuals and groups that created the structural change that we see, guiding its transformation through practice and through the manipulation of tradition

and ritual at the community level through everyday actions, punctuated by the feasting events outlined here.

11.5 Summary

The present study shifts the investigation of identity from pottery style to a more holistic understanding of identity negotiation that includes context and the consideration of the other elements of foodways – resources, technologies, and practices – beyond and in addition to pottery. We should not extract the style of these ceramics from the contexts in which they were used if we want to understand them wholly. These materials were involved in meaning making and identity negotiation several times over – when they were made, used, consumed, and disposed of as refuse in a way that altered the landscape of the site. Just as the material traditions – both foodways and pottery style – shaped the choices and actions of the people who made and used them, so did the mounds that were created by their disposal. The deliberate formation of these mounds also had meaning and implications for the people that were involved in their creation and for those that lived in and among them for generations to come. Tradition quite literally altered the landscape on which this community lived. Midden mounds served as enduring symbols of the practices through which community identity was built and maintained. These material formations altered the history of the people that interacted with them, shaping traditions and participating in the transformation and maintenance of identities as they did so. To remove our understandings of pottery style from the food it was used to prepare and serve and from the practices that led to its consumption and disposal misses not only the first iteration of its transformation into a meaningful symbol of identity, but also its final disposition within a context where it was brought together with other materials and these materials were built into a

lasting feature of the landscape. We may find some understanding of meaning and identity in style, but it is one devoid of practice and of place. Foodways help us rediscover these aspects in the study of identity.

CHAPTER 12 :

CONCLUSIONS

The study of identity negotiation at Selin Farm demonstrates that we cannot assume aggrandizers, expansionist chiefdoms, or outside influences were responsible for cultural change in the small-scale societies of Central America. There were internal, social, political, and religious strategies being employed by individuals and groups that created the structural change that we see, guiding its transformation through practice and through the manipulation of tradition and ritual at the community level through everyday actions, punctuated by large, communal feasting events. This chapter explicitly outlines the ways in which the theoretical approaches introduced above were applied to help understand the feasting events discussed in the previous chapter and the ways in which their application ultimately altered our broader understanding of the process of identity negotiation in northeast Honduras during the Selin period (AD 300-1000). This is followed by comments on how the approach taken here can be applied in other border areas, particularly where small-scale societies were interacting with larger groups, and future directions for research in this region specifically, including how they can build on the results of this study.

While pottery styles indicate a major shift in the identity of northeastern Honduran groups over time, foodways demonstrate at least two significant changes that took place during the occupation of Selin Farm. Rather than reactionary shifts triggered by external forces, these changes occurred in tempo with or prior to the dramatic reorganization of societies that took

place throughout southeastern Mesoamerica during the Terminal Classic. First, after the end of the Early Selin period (ca. AD 600), residents at the site used less, rather than more, maize in their feasting events. Manioc beer, or *chicha*, became the preferred beverage at feasts. This coincides with a previously unreported shift in the forms and size of painted pottery that adapted San Marcos Polychromes to local needs, focusing on large serving jars for *chicha*. Following this, at approximately AD 800, ceramic *comales* were introduced at Selin Farm, at around that same time that Mesoamerican groups began making corn tortillas. Rather than an adoption of this change in foodways from the north, however, northeastern Hondurans continued to focus on manioc as their primary resource and instead developed new methods of preparation for manioc into a tortilla form. *Sasal*, the southern response to the tortilla, was adopted as a signature food of the region (Hastorf 2017:224), where it continues in this role today among the Pech (Griffin et al. 2009). Just as they had with the changes in painted pottery centuries before, locals put their own distinctive mark on regional trends.

Not only do foodways highlight the active role of prehispanic northeastern Hondurans in the negotiation of their identity, they also remind us that that process is continual and often contentious. Continuity, as much as change, takes practice. Long-term stability does not simply result from a culture in stasis, especially in border areas. Feasting at Selin Farm was habitual, and it occurred at multiple scales from the household to the community and even supra-community events. Feasts at the community level seem to have acted as a check on individual power and a conduit through which hosts and brokers channeled innovation and outside influences to the rest of the community. Despite their scale, these events included everyday resources and technologies, reinforcing their existence on a continuum with everyday meals. Accordingly, these events were likely complementary to everyday norms and practices that

delivered the same messages about acceptable social behavior within the group. Feasts and the power they entailed for an individual or group were not made inaccessible through the use of restricted resources or knowledge. Over time, however, in the final phase of occupation at Selin Farm, supra-community events came to include a religious aspect that coincided with internal differentiation in status among households at the site and the addition of an exclusive form of feasting associated with monumental architecture. Here again, previous studies of pottery styles hinted at a change and studies of settlement patterns suggested these shifts led to increasing social inequality over time. A contextual study of the pottery, however, demonstrates where and how these styles were combined with food in practice to contribute to these broader changes in society. This practice-oriented approach privileges local, active agents in those processes.

12.1 Theoretical implications

The internal forces behind the processes of cultural change in northeast Honduras were elucidated by an approach that shifted the focus of the investigation of identity from pottery styles to foodways, which – by definition – considers both materials and practices in the formation and maintenance of shared traditions that underlie group identities. Foodways are an ideal lens for understanding identity in the past for several reasons. Choices about food – from what is considered edible to styles of preparation and serving – are all shaped by culture. Recipes and cooking methods are passed down over generations and are imbued with emotion tied to both collective and individual memories and identities. For archaeologists, the interaction with food is constant and repeated and has material consequences through which we can interpret use and meaning. With the long-term perspective provided by archaeology, we can trace how aspects

of these practices change in relation to each other and to broader social and political changes as well.

In addition to these broad understandings of culture change, food traditions also elucidate internal differences within seemingly homogenous groups. The current case study on northeast Honduras is an exceptional example of how shifts in cuisine can occur earlier and express more nuanced differences than other aspects of culture. We saw this occur at least twice at Selin Farm – when locals moved away from maize as a central crop after the Early Selin and later in the Transitional Selin when differences in household access to ritual feasting first occurred. The identification of internal heterogeneity is a first for this region, where broad similarities are more often the focus of studies of pottery style (e.g. Cuddy 2007).

Throughout the occupation of the site, there was also another, slower but more profound change in the underlying foodways of the area with the creation of a signature food. Drawing on long-standing traditions of manioc use that reflected ties to lower Central America, locals emphasized manioc use and elaborated its preparation. In times of radical change, groups often turn to their food traditions to create enduring symbols of shared identity. These signature foods (Hastorf 2017:232-237) serve as a source and symbol of solidarity and cohesion within the group and, particularly in border areas, help to elucidate and reinforce cultural boundaries. For northeast Honduras, the study of this process provides an entirely new perspective on identity and affiliation by using foodways as a lens.

When food choices result in special, stratified deposits like those at Selin Farm, they also provide extraordinary evidence for how traditions are created and maintained through repeated practice. Because identity is experienced and created through interaction, we can demonstrate how repeated practices that bring together people in a group help to create a shared identity

rooted in tradition, rather than relying on understandings of material culture to trace static, bounded ethnicities on a landscape (Inomata and Coben 2006:23). Concepts from memory and materiality studies provided perspectives for understanding structured deposits at Selin Farm as the result of repeated practices that created and provided authenticity for symbols and traditions that constituted northeastern Honduran identities (Joyce 2008, 2017; Mills 2016; Mills and Walker 2008). Models used to characterize and compare feasting size and style (Hayden 2001; Kassabaum 2014), helped to track changes in these traditions over time and space.

Although not addressed in detail above, the role of the ritual mode of production as a driving force in these and broader cultural changes in northeast Honduras should also be considered (Spielmann 1998, 2002; Wells and Davis-Salazar 2007). In light of the revealed intensity of feasting activities at Selin Farm within an egalitarian society, ritual feasting may have been a mechanism through which individuals and groups temporarily increased the production of foods and goods. As the requirements of feasts grew in tandem with the scale of the events, feasting may have served as a significant factor in more intensive ceramic and agricultural production over time. This has been clearly demonstrated as a temporary result of the food and wastage requirements of documented feasts (Clarke 2001:158-160). No shortage of estuarine resources is documented at Selin Farm, even towards the end of its occupation, and there is no evidence of intensifying agricultural practices being driven by growing populations. Rather than a steady increase in pottery and food production over time, the intensity of both at Selin Farms seems to have been more closely tied to the timing of large, communal events, not to the need to supply inhabitants with food and tools for everyday use. If these patterns were sustained and augmented into the following Cocal period, it seems likely that ritual motivations, rather than economic ones, were at play.

Finally, this study also reconceptualizes interaction by using a communities of practice framework. Communities of consumption (e.g. Mills 2009) were identified as a unit of analysis for understanding how northeastern Honduran communities were articulated with each other and how they came together to form a larger constellation of practice centered around the use of symbolically significant pottery and signature foods. Reconceptualizing interaction at these various levels allows us to consider painted pottery styles within their contexts of use as a source of information on how communities are formed and how the people who make up a community have multiple and sometimes overlapping identities. At various scales, objects, individuals, and groups may form the nodes that connect different communities. In this framework, these connections are called brokers and boundary objects (Wenger 1998). Here, brokers are understood as potters who made and used pottery belonging to the painted pottery traditions of Honduras (Joyce 2017, 2018). Boundary objects are the styles themselves and the shared repertoire of design execution techniques, motifs, and forms that constitute these pottery traditions. These terms are employed to help clarify how the northeastern constellation of practice was articulated with those to the north and the south in more concrete ways than nebulous terms such as influence or interaction (Roddick and Stahl 2009).

We learn from contextual analyses at Selin Farm that the northeast developed a community of practice centered around consumption of painted pottery styles in feasts that began early during the occupation of Selin Farm (ca. AD 300). This community of consumption (e.g., Mills 2009) was linked to others throughout northeastern Honduras by these shared traditions. Together these formed a constellation of practice (Roddick and Stahl 2009; Wenger 1998), that was articulated with similar traditions that formed their own constellations of practice to the north and south. Importantly, these constellations are not nebulous but can be traced to other

sites (e.g., Dos Quebradas, Chichicaste) and definite areas (e.g., El Cajon). The internal processes within these other constellations provide models to consider for understanding northeastern developments (i.e., the interrelated rise and fall of Tenampua and Las Vegas polychromes in the Comayagua valley, Joyce 2018), while also shedding light on external circumstances that would have had direct consequences for the movement of people, goods, and ideas to and from the northeast region. The present study has demonstrated that the production and use of painted pottery styles that fit within Honduran traditions was early, widespread, and long-lived in northeastern Honduras. With its beginnings in the Early Selin (ca. AD 300) and persistence until at least the end of the Transitional (ca. AD 1000) at Selin Farm (and likely the development of the San Marcos polychrome into the Bay Island Polychrome during the Cocal period, Cuddy et al. 2020), the painted pottery of northeast Honduras is one of the longest-lived traditions recorded in the region.

There is also indication that this region shared feasting practices as a widespread occurrence among all segments of society, which contributed to the building of alliances both within the northeastern constellation of practice and beyond it, where neighboring groups in southeastern Mesoamerica used shared painted pottery styles in similar settings. Ties were channeled through these boundary objects, which were introduced to the community through brokers that had direct interactions with other groups. The similarities between patterns of consumption within which the painted pottery styles were embedded suggests that these interactions were sustained. There were shared understandings about the contexts of use for these styles, indicating that this was not simply an emulation of styles. That styles were adapted, local symbols (e.g., manatee head lugs) added, and forms modified to fit the *specific* requirements of the needs of feasts (e.g., jars for *chicha*) as understood by local northeasterners demonstrates

these similarities were also not the result of acculturation. Instead, using the communities of practice framework to reconceptualize these interactions, we might consider potters themselves as essential links (i.e., brokers) between communities and constellations of practice that took part not only in pottery production, but also in shaping how it was consumed. Moving physically between settlements and regions, potters participated in multiple, overlapping communities of practice between which they served as mediators, bringing with them not only knowledge about how to make pottery, but understandings about how it should be used. That similarities between pottery traditions ran deeper than the symbolically charged serving wares to include utilitarian wares as well serves to further illustrate that these connections were multiple and sustained. That these relationships were socially, rather than politically or economically, motivated is underscored by the lack of evidence for the importation of any significant amount of goods from neighboring regions (i.e., obsidian). This framework allows us to consider similarities in style as the result of individuals and groups learning together to develop shared strategies and materials to succeed (Lave and Wenger 1991; e.g., feasting as a mechanism for community integration), rather than resulting from nebulous ‘interaction’ or ‘influence’.

Taken together, the evidence from Selin Farm suggests that the shared beliefs that connected northeast Honduras to other groups along the southeast Mesoamerican border, most clearly marked by their similar consumption of painted pottery, were a strong force in limiting social inequality and creating stability throughout the region for centuries. As communities to the north underwent significant changes at the end of the Classic period that resulted in destabilization, groups in northeast Honduras used their border status, as the most eastern community in a Mesoamerican constellation of practice and the most western community in a lower Central American constellation of practice, to actively alter their local practices to

emphasize their connections to the south. This change in practice was likely connected to and part of a larger strategy that drew on long-standing ties to those groups in order to transform their group identity and align themselves socially and politically with powerful chiefdoms to the south while also distinguishing themselves from groups to the north. The adoption of new symbols of identity and affiliation, through both pottery and foodways, was inextricable from changes in the way those symbols were used and understood. As the practices that constituted tradition and identity were negotiated, new opportunities for individual power emerged in the form of specialized ritual roles that were tied to the increasing social inequalities that developed in the northeast by AD 1000 and continued to develop throughout the Postclassic period.

12.2 Broader applications

Archaeological studies of border areas have traditionally focused on outlining static culture areas on the basis of differences in material culture, usually pottery style. Contemporary social archaeology brings in practice-based approaches that highlight the situational nature of identity and emphasize internal heterogeneity. Foodways, which by definition include not only technology and resources but also practice, are an ideal way in which to frame studies of identity that bring together diverse aspects of cultural expression and the negotiation of identity. Food choices, from resource selection to differential consumption and disposal styles, are often bound up in cultural identity. Foodways, as much as pottery styles, send messages to others about shared beliefs and identities. In order to understand how choices about foodways and style come together to reflect and shape identity in border regions, this study focused on pottery as a central medium connecting these elements. Pottery style demonstrated a clear shift in how external

affiliations were emphasized over time. The contexts in which this pottery was used provided a much richer story about identity in a border region.

In terms of broader applications of this research, the present study adds distinct social strategies suited to navigating border zone interactions to the list of innovative developments in Central American prehistory. In border regions, the emulation and reappropriation of materials and styles from distant groups is often a source of power for emerging elites (Blanton et al. 1996; DeMarrais et al. 1996). In contrast, strategies in northeastern Honduras that appear to emphasize group cohesion or integration represent a variation on traditionally documented reactions to cross-cultural interaction on the Mesoamerican frontier (Cuddy 2007). By looking at practices related to the implementation of this strategy across multiple classes of materials and varied contexts, this research detects otherwise indiscernible differences in the ways in which identity was negotiated within a seemingly homogenous community. The approach presented here offers a unique opportunity to examine varied responses to long-term, cross-cultural interactions in a border region.

The potential for increasing knowledge, however, extends beyond the expansion of regional prehistory in its ability to contribute a rich study of identity negotiation across multiple signifiers and to connect the micropolitics of intra-community identity negotiation to macro-level social changes. While northeast Honduras is typically defined only in comparison to its more prominent neighbors, this research highlights and furthers the understandings of multidimensional local affiliations. Using identity negotiation as a lens for interpreting changes in material culture and practices lends a more active role to local groups, often considered peripheral to their larger, more well-known neighbors. Today, negotiations of identity occur more widely and at faster rates than ever before in human history and borders continue to be

locations of contentious redefinitions or revitalizations of tradition and meaning throughout the world. Using archaeology to explore how identity is negotiated in instances of cross-cultural interactions allows for better understandings of border area interactions (e.g., conflict, colonization, acculturation, economic interaction), in both the past and present. Archaeological studies of identity in border areas offer the diachronic and multi-scalar approaches necessary for disentangling the complex elements and processes that constitute these interactions (Cusick 1998; Lightfoot and Martinez 1995; Stark 1998).

12.3 Future directions

Future research at Selin Farm and in the northeast Honduran region can build on the present study in several ways and current projects have already provided complementary data sets. Many of these were highlighted throughout the chapters above. In the future, multi-technique residue analyses and starch grain and phytolith analyses should be applied to ceramic and lithic materials to help securely identify resources used in the past and to expand the range of plants and animals that can be detected. Ongoing analyses of ceramic pastes (Aguilera 2019) has the potential to address questions about the nature of production related to feasting, host and participant roles specifically, and to the ritual economy of the region more broadly (e.g., Wells and Davis-Salazar 2007). High resolution data on the seasonality of deposits through mollusk species identification will also contribute to understanding the timing of and temporal distance between the feasting events identified here (Elvir 2019; Elvir et al. 2018). Faunal analyses of vertebrate remains are also expanding our understanding of animal use at the site (Reeder-Myers et al. 2019). Radiocarbon dates from cores extracted from each mound at the site have already changed our understanding of the site's occupational history (as discussed above, Reeder-Myers

and Goodwin 2019). Botanical analyses of charred materials of the charcoal submitted for dates and others from excavation are also ongoing and have identified mangrove wood as another valuable resource that drew past populations to the lagoon (Alejandra Domic, personal communication). A larger project focusing on how archaeological data from the site and the nearby lagoon can elucidate practices related to long-term socio-ecological resilience of local groups and contribute to the effective management of modern coastal fisheries is also being developed. LiDAR data from this project will help to identify other prehispanic occupations around the lagoon to help build the regional settlement history.

Modern large-scale industrial farming of African oil palm in the Aguan valley by multi-national corporations has resulted in significant pollution of the Guaimoreto Lagoon. Oyster and other important resources are no longer available to local communities. If archaeological studies can help provide useful solutions for responsible and sustainable management of these resources, that is one possible route to contributing to the local community. Excavations at Selin Farm have also provided a possible source of materials to contribute to the recognition of Pech communities within the local museum at the Fortaleza Santa Barbara in Trujillo, where restored pottery and other well-preserved artifacts from this study are scheduled to be put on display for local, national, and international tourists.

12.4 Summary

By tracing the nature and scale of feasting events over time and space at Selin Farm, this study provides data critical to situating the processes behind identity negotiation at the local level and tying the micropolitics of individual events to broader social and political changes in the region. While previous analyses of ceramic style offered some explanation of how shifting

identities led to long-term stability in the region (Cuddy 2007; Cuddy and Beaudry-Corbett 2001; Epstein 1957; Healy 1984a, 1984b, 1993), the contextual study of this pottery, which places equal emphasis on foodways, provides new understandings of how meaning was made and presents a more holistic understanding of why some symbols of group identity endured throughout a time of social and political upheaval in the northeast and the broader region.

Foodways offer new insights into the timing and nature of social change at Selin Farm and the mechanisms associated with broader social and political change as they were manifested at the level of the event. Furthermore, the study of foodways at Selin Farm has helped identify the development of shared food traditions as a unifying force among northeastern groups that arose out of a long-standing cultural preference for manioc. Those traditions came to stand as a symbol of community identity that has carried through to descendant populations. The formation and maintenance of that symbol and the identity with which it is bound took, and continues to take, a significant amount of practice. Collective memory must be built and maintained and continuity, as much as change, is the result of shared practices. The nearly thousand-year long history of eating and feasting at Selin Farm reinforces that point.

APPENDIX A:
TYPE-VARIETY DESCRIPTIONS

Type-variety descriptions are brief synopses of previous definitions, mostly based on work by Jeremiah Epstein (1957) and Paul Healy (1993). These are presented by period. The concluding table (Table A-1) provides summary data on identifying attributes, forms, and sizes as well as information on the contexts in which these types have been found in the northeast and in neighboring areas (e.g., Begley 1999; Winemiller and Ochoa-Winemiller 2009).

Early Selin type-varieties

Early Selin types are derived almost exclusively from the assemblages excavated from Selin Farm by Healy (1978a, 1993). Most ceramics are slipped and painted and suggest strong ties to other northeastern, central, and northwestern Honduran groups in both utilitarian and serving wares (see Hirth et al. 1993, below). Our sample indicates that the close ties between these regions, often seen in direct comparisons made between San Marcos Polychrome (SMP) and other painted pottery types like Dos Quebradas and Ulua polychromes (see below), began in the earliest phases of occupation at Selin Farm, prior to AD 600. These dates correspond to the Late Yunque period in the El Cajon valley, where the Sulaco Orange type was recorded as the earliest expression of the Bold Geometric Polychrome ceramic family, which, prior to that study, had only been reported in Late Classic contexts (Hirth et al. 1993:222).

The presence of Dos Quebradas and San Marcos polychromes in our Early Selin sample from Mound P suggests that not only was northeast Honduras participating fully in Honduran painted pottery traditions, it was doing so at a very early date (i.e., within the Early Classic period; see Joyce 2017:166-167, Table 5). Future studies are sure to highlight internal variation within SMP traditions in the northeast, but its production began as early as some of the more well-known painted pottery traditions (e.g., Ulua polychromes) and carried on through at least the Transitional Selin period (i.e., Terminal Classic to Postclassic).

The slight to pronounced constricted bowl form of the Moradel variety of the SMP is not reported in the various Early Sulaco types from El Cajon, or even the earlier Sulaco Orange type (Hirth et al. 1993:222-224; Figures 2.8-2.10). The consistent forms for both the SMP:M and SMP:SM type-varieties at Selin Farm suggest that their uses were standardized and specialized from an early date and that these uses differed from those seen in other regions, even prior to the Late Classic period. In addition to the general SMP type, these specific forms within the SMP tradition carry on through the Transitional Selin period.

Chapagua Red Rimmed (CRR) is a primarily Early Selin type (Healy 1993:200, Figure 11.6; see also Epstein 1957:144, 151 “Red Rim Utility Type”). Jars are the most common form, although diverse forms have been reported including cylinder vases, hemispherical bowls, and *comales*. The paste is the same as Trujillo Coarse. Jars are also of a similar size, with rims ranging from 15 to 39 cm in diameter. This type appears to be related to both cooking and serving activities. Distinctions between cooking and serving wares are more sharply defined in all other types. CRR is ubiquitous at the site during the Early Selin, as evidenced by our excavations and those of others (Healy 1978a, 1993; Epstein 1957). There are many similarities

between this and other red-on-natural utilitarian types found throughout central and northwestern Honduras (e.g., Chinda Red on Natural, Hirth et al. 1993:223-224, Figure 2.11).

Guaimoreto Painted Raised Band (GPRB; Epstein 1957:131, 151, 213, Figure 15g-k; “Painted Band Type”) is a hemispherical bowl sometimes with a slightly incurving rim. The form is consistent and has no handles or supports. Bases are concave. Rim diameters range from 14 to 38 cm, with most being about 20 to 28 cm. Vessel height estimates are 7 to 15 cm. These are carefully smoothed and slipped on the interior and exterior. Crack lacing repairs are present. Paint is always various groupings of parallel lines painted in red or black, but not both. Designs are often not carefully executed. Red paint may be earlier than black. Form is identical to that of the San Marcos Polychrome: Moradel and the two are likely closely related, as the SMP:Mtype seems to replace the GPRB type over time. This type appears to be a truly local development, with few comparisons available between this and types in neighboring regions.

The GPRB type is also closely related to the Tegucigalpa Punctated Raised Band (TGPRB), with which it shares common forms (simple or incurved bowls, although the latter is now known to have elongated, tripod supports not seen on the former). These two types were previously designated as a single “Raised Band Ware” (Epstein 1957:115, 305), though Healy’s (1993:203-204) larger sample allowed for further differentiation. TGPRB-type vessels are consistently shallow, curved or incurved wall bowls with tripod supports. TGPRB surfaces are smoothed and slipped, some polished. Diameters range from 14 to 28 cm. Lugs, if present, present zoomorphic forms. Supports are humanoid figures. No paint is present.

Orion Orange Incised (OO; Healy 1993:206-206), previously categorized as a Basic Selin type, was present in both Early and Basic Selin contexts in our excavations. A nearly whole vessel from the lowest levels of our excavation into Mound P confirmed its distribution and

provided additional information about its form (Figure A-1). The form is a composite silhouette bowl, probably better characterized as a dish given its low height. Surfaces are slipped and sometimes burnished. Heights ranged from 12-18 cm. Supports, like the TGPRB, are humanoid figures very similar in style and execution. No paint is present on vessels of this type.



Figure A-1 Orion Orange Incised bowl with elongated tripod support.

Bonito Incised Painted Band (BOI) is not as well defined (see Healy 1978a: Figure 6a-b) as other Early Selin types but is generally a globular jar form with exterior vertical incisions framing painted panels (Figures A-2 and A-3). One miniature example from the lowest ceramic bearing level of Mound P had the incisions rather than the raised panels painted black (Figure A-

4). Paint is either red or black but not both. A BOI jar was submitted for stable carbon and nitrogen analysis and returned a signature with the highest relative measure of C4 plant use at the site (see Chapter 10).



Figure A-2 Bonito Incised Painted Band jar fragment. Recovered from Mound P (Operation 03, Lot 15).



Figure A-3 Bonito Incised Painted Band jar fragment. Recovered from Mound P (Operation 03, Lot 8).



Figure A-4 Miniature Bonito Incised Painted Band jar fragment. Recovered from Mound P (Operation 03, Lot 19).

Maranonez Orange (MO; Healy 1993:201-202, Figure 11.8) is distinctive for its micaceous paste and surface finish, which is slipped and carefully smoothed. Polishing and burnishing are common. Forms are most often collared jars with strap handles or bowls with everted rims, both with an average diameter of 32 cm.

The Selin Manatee Lug (SM) type is quintessential to northeast Honduras and is ubiquitous from the Early Selin through the Contact period, as discussed above. Manatee Ware is unique to the northeast, with only a vague likeness to lugs from the highlands of Costa Rica (Epstein 1957:211). The dominant form is a flare walled cylindrical vase with paired lugs that resemble the head of a manatee (*Trichechus manatus*) and tripod, dimpled legs. It is ubiquitous

in the region by the Basic Selin period, and its use continues until Contact. There is some indication that it was first produced along the coasts (Cuddy and Beaudry-Corbett 2001), which seems logical given the manatee's importance as a coastal resource.

Healy (1993:202-203) describes the known SM type Selin Period forms and decoration in detail, building on Epstein's (1957: 210-213) work. The modeled manatee head lugs are the defining feature of this type and manatee depictions range from realistic to abstract. The form as well is diagnostic, as the only known form is a cylinder vase with a slight mid-body restriction and with three outflaring supports at the base. The interior and exterior surfaces are slipped, scraped (burnished?), and well smoothed. Rim diameters average around 22 cm and heights probably average around 24 cm. Miniature forms are common, particularly in Mound I (see below).

Dos Quebradas ware (Epstein 1957) is identified by its fine sandy paste with no temper and reduced core. Interior and exterior surfaces are slipped orange and painted in red. The motifs unique to this type are the fine line and attached disc, with geometric motifs with scrolls, terraces, and double scrolls also being common. It is similar to Santa Rita Mayoid pottery (Epstein 1957:107). The type sites for Dos Quebradas and San Marcos wares are located in the northeastern interior, in the department of Olancho, and the two wares are closely related, as discussed below. Some Dos Quabradas ware at Selin Farm may be local emulations of this style rather than imports, but further study is needed.

Basic Selin type-varieties

The Basic Selin period is known mostly from four sites in northeastern Honduras: Selin Farm, 80 Acre, Dos Quebradas, and San Marcos. There are strong ties between northeast, central, and northwestern Honduras during this time, most apparent in the San Marcos and Dos Quebradas wares. These wares share similar shapes, designs, and an orange or buff slip. Most common is the monkey handled angled shoulder jar with motifs that include scrolls, terraces, and guilloches. Strong (1948:80) originally noted the connections between the San Marcos and the Ulua Bold Geometric Style from northwestern Honduras. These have since also been related to the Sulaco polychromes of the nearby El Cajon region (Hirth et al. 1993). Epstein (1957:266) noted similar connections between the Dos Quebradas type and the Santa Rita Mayoid Style. Dos Quebradas is fine pasted with little to no inclusions. San Marcos has a sandy paste. Additionally, they can be distinguished on the basis of design, as the Dos Quebradas Type uses the attached disc motif, which further supports the connection to the Santa Rita pottery. Dos Quebradas sherds have been found at Santana in the Ulua Valley and Mound H at Selin Farm had two Santa Rita Mayoid sherds as well as sherds that apparently combined styles from this type and what Epstein (1957:267) called the Comayagua Bold Geometric Style. Las Flores Mayoid pottery fragments, with monkey handled jars, were also found in Mound U at Selin Farm and by Strong throughout the Bay Islands. While northeastern pottery is not common outside of the region (likely due to a lack of familiarity with these types elsewhere) it appears that potters from the Ulua region and at Playa de los Muertos produced Manatee Ware lugs on their pottery (Epstein 1957:267). Connections further afield in the Maya world are tenuous but were considered in detail by early explorers and researchers (see Epstein 1957; Spinden 1925; Stone 1941; Strong 1935).

The first description of this type and its characteristic forms and designs came from Strong (1935). At the site of Dos Quebradas Strong encountered, “Large bowls with restricted orifices have vertical strap handles with small conventionalized manatee lugs at the bend. These vessels have a dull yellow or orange slip and red and black designs. The latter are either geometric or else elaborate and symbolic, suggesting degenerate Maya types...” (Strong 1935: 160). He noted the same polychrome types at the site of San Marcos in inland Olancho, including a nearly complete vessel (see Strong 1934a, Figure 54). He describes these as having, “manatee lugs on the handle and a ‘braided’ design below the neck” (Strong 1935:160). Strong also described from these sites large, composite silhouette bowls with long tripod supports that are hollow with rattles and often modeled to represent alligator or reptile heads in association with other forms. These vessels are now part of the Dos Quebradas type, which shares features with the Bold Geometric Group, although this association is not as commonly acknowledged due to the overall lack of information available about these central-northeastern types (although see Beaudry-Corbett et al. 1997; Winemiller and Ochoa-Winemiller 2009).

Epstein (1957) also noted similarities and associations between this type and central Honduran polychromes. Drawing on Strong et al. (1938), these included motifs using the guilloche, simple and double scrolls, and terraces, which are common to northeastern and central Honduran bichrome and polychromes – including the San Marcos, Dos Quebradas, and Chichicaste wares. These motifs are generally considered Mesoamerican in origin, although they are known to occur commonly on Nicoya polychromes in lower Central America (Epstein 1957:222). Given that pottery styles from this region commonly combine northern motifs with southern styles (e.g., Epstein 1957: Figure 19A which shows an alligator motif common in

Nicoya polychromes with the double scroll diagnostic of San Marcos wares), there is a possibility that northeastern Honduras linked the two regions in the past.

Epstein (1957:220) noted that there are local variations in the paste of this type, though it is generally made from a sandy paste and fired to a buff color. In his analysis, Epstein (1957) noted a variety of forms which included simple bowls, cylindrical vases, barrel bowls, bulge bowls, flare walled bowls, and “monkey handled jars”. The latter he described in some detail: “The upper part tapers gradually from the angle that joins upper and lower sections to the rim. There is no true neck, since the neck region is continuous with the upper body, which in turn joins the lower by a sharply angled shoulder” (Epstein 1957:232). He also noted that this last feature is typical of the “monkey handled jars” from the Ulua-Yojoa drainage. These forms, combined with this motif, are apparently limited in their distribution to the northeast, northwestern, and central regions of Honduras. Although sharply angled shoulders on jars are common in lower Central America, they appear later in time (Epstein 1957:235).

Jericho Grooved (JG) vessels are shallow bowls with a pronounced external groove. Diameters are large, with an average of 36cm. Surfaces are smoothed and slipped, and some are burnished. Some applique or modeling of rims is present. One example from our excavations suggests this type might also include small, collared jars, where the groove actually forms the neck of the vessel (Figure A-5). The head is also vaguely similar to a TGPRB vessel in Healy 1992: Figure d. Our sample also indicates that bowls are shallow with concave bases.



Figure A-5 Small possible Jericho Grooved bowl/jar with a fish head lug. Recovered from Mound U (Operation 4, Lot 10).

Rio Aguan Incised Scroll and Punctate (RA) is an important type that encompasses a variety of designs that suggest ties to lower Central America. These designs include incised double line scroll motifs. The incised and punctate designs which first became prominent within this type are carried out on later types during the Transitional Selin and Cocal periods, particularly the Dorina Abstract Incised Punctate type that is ubiquitous throughout the Cocal period (see Dennett 2007; Healy 1993:209-212). Our sample included an interesting early example or prototype for the RA in the lowest levels of Mound P, well before the onset of the Basic Selin period and the proliferation of the RA type in its typical form and design (Figure A-6) with slab feet and incised and punctate design. This vessel shares the incising and punctate design, although poorly executed, and the tripod slab supports. The fire clouding and color variation on this example are typical of later RA bowls as well.

The typical RA vessel form is a composite silhouette bowl with outcurving walls and z-angle breaks. Rims are often thickened on the exterior. This type seems very closely related to the SMP bowl forms in these details. Average diameter of these bowls was 30 cm, which is also consistent with SMP bowls. Surfaces are smoothed, slipped, and burnished. Considerable variety in RA type vessels suggests there are several varieties identifiable that may be classifiable with the examination of a larger sample. Ties to later support styles are clear (e.g., compare Figure of bearded man motif support with Healy 1993: Dorina Abstract Incised Punctate: Dorina Figure 11.19:c,e).



Figure A-6 Possible early prototype of a Rio Aguan Incised Punctate type tripod bowl. Recovered from Mound P (Operation 03, Lot 15).

The Corocito Chalky type (CC; Healy 1993:204-205) was not recovered in our sample. Healy reports bowls with outflaring or outcurving walls, possibly cylinder vases and pedestal

bases. It was probably slipped but none survived. Some modelling of attachments or lugs were the only decoration present or preserved. The sample was only 36 sherds from Mound D at Selin Farm and several units at William's Ranch. CC is a problematic type as the chalky, fine paste with no tempering is characteristic of the Dos Quebradas type first reported by Strong (1935:160) and later described by Epstein (1957:132), and Healy's (1978a, 1993) sample may actually represent poorly preserved examples of this type.

Transitional Selin type-varieties

Transitional Period influences are primarily from the highlands of Costa Rica and Nicaragua, with an absence of apparent continued connections to northwest Honduras, particularly those ties to the Ulua Valley seen in the previous two periods. However, there are significant similarities in form and style between the Transitional Period San Antonio Carved Type and the Ulua Marble vases. Polychromes are less common and instead surface altering, incising and punctate are dominant. Despite these changes, there are common threads among the ceramic types over time that indicate *in situ* development with few external influences (see below). Epstein (1957:272) notes some of these similarities as well – mostly the continuation of painted motifs, but also the production of the monkey handled jar with incised rather than painted designs. The use of the alligator motif, combined with traditional geometric designs on the San Marcos wares of this period, is common in Nicoya polychromes and suggests especially close ties to Pacific Costa Rica. These same influences are also evident in the carved groundstone traditions that become common across the region through the Cocal Period.

The Cristales Incised type (CI; Healy 1993:207-208) encompasses many of the designs present in the RA Basic Selin type on a sharply outflaring walled dish with hollow tripod

supports. It clearly continues a tradition of dishes that can be traced back to the TGPRB type of the Early Selin through the OO type of the Early and Basic Selin, although it is the first example of a bowl shallow enough to be considered a true dish. This shift suggests changes in either the type of food being served or how it was served, as discussed in Chapter 11. Vessel diameter average was around 24cm.

On the Bay Islands, San Antonio Carved (SAC; Healy 1993: 208-209) vessels are known from offertory deposits (see Cuddy et al. 2020; Goodwin 2011). Two complete vessels of this type were found by Strong (1935: Pl. 24, see also Pl. 26) at the Indian Hill Site on Helene and classified as Elaborate Monochrome vessels of the Ulua marble vase type of decoration. Dennett (2007:64), based on a sample from the lowest levels of excavation the Rio Claro site (dating post AD 1045; see Healy 1978b), hypothesized that vessels of this type are effigy vessels, rather than vessels related to food preparation or serving, and the Bay Islands contexts tend to support that interpretation. Similar transformations in the context of use of this type are seen in the SMP wares during the Cocal Period as they develop into the Bay Island Polychrome type (Cuddy et al. 2020; Strong 1935).

Cocal type-varieties

Although not encountered in our excavations, comparisons are made to several of the types outlined here. Additionally, some of the surface collection material encountered on Mound G specifically suggest there may have been an Early Cocal period occupation or at least a brief episode of use at Selin Farm at this time.

Dorina Abstract Incised Punctate (DAIP) is by far the most common type of the Cocal period. As representation of this period increases, variety distinctions are being recognized.

Strong (1935:142-143; 1948:77) described two wares or types that encompassed the current type under consideration – the Elaborate Monochrome Style and the North Coast Applique Style. Epstein (1957:246-248) and later Healy (1993:209-212) redefined these types to the Double Scroll Type (now Rio Aguan Incised Scroll and Punctate) the Simple Incised type (now Concha Simple Incised Punctate), and the Abstracted Scroll type (now the Dorina abstract Incised Punctate type. Dennett (2007) elaborated further on these from the Rio Claro assemblage (Healy 1978b).

DAIP ceramics are characterized by the use of the lazy S or abstracted curvilinear scroll lines, offset by punctuation (Healy 1993:209). Painted designs are not present. Forms are generally straight walled vessels, shallow tripod bowls and plates and, less frequently, composite silhouette vessels and narrow necked jars (*ollas*). Elongated, hollow, and elaborate modeled and decorated supports are common. Dennett (2007:44-45) also identified a related type, the Capiro Monochrome Incensario: Capiro variety, previously subsumed within the DAIP type.

Strong (1935) was also the first to identify and describe what is now known as the Bay Islands Polychrome. This rare type is restricted in its distribution to the north coast and the Bay Islands during the Cocal Period (AD 1000-1520). The form is a unique pear-shaped vase with tripod supports and paired lugs. Painted designs have a limited repertoire, mostly of a ‘plumed serpent’ type motif and are painted in red and black on an orange or cream slipped surface. Known examples, although limited, are uniform in production and design and are thin walled and fine pasted.

Recent work by Cuddy (2007; Cuddy et al. 2020) on Strong’s and other existing collections points to at least two varieties of the BIP that correspond to the Early Cocal (AD 1000-1200) and the earlier portion of the Late Cocal (ca. AD 1200-1400). Cuddy also suggests

(Cuddy et al. 2020) that the Helena Incised Polychrome vessels found on Helena Island are representative of a transitional form between the San Marcos Polychrome and the Bay Islands Polychrome. These types share the step motif (Strong 1935: plate 18e) but also incorporate the incising and cylinder vases so central to Transitional Selin and Cocal period styles and represent a shift towards the thinner pottery of the BIP. However, few examples of this type are known and its chronological placement is not clear.

The organization of design elements and general layout of the design field between the SMP and BIP is remarkably similar. A closer analysis is needed, but these also appear to reflect similarities with Ulua polychromes generally (see Joyce 1993a, b). Overall, the northeastern Honduran ceramic traditions fit well within broader patterns documented for Honduran ceramics in the northwestern and central regions from the Early Classic (see Hirth et al. 1993 especially in the El Cajon region) to the Terminal Classic periods. By the Early Postclassic, however, these similarities are lessened and only vague similarities between the BIP and other Honduran traditions are evident. While the SMP tradition can be cited as a precursor to the BIP, the use of this later type clearly differed. These concurrent changes seem to mark a general move away from both the exchange spheres and the social practices that tied the northeast to central and northwestern Honduran painted pottery traditions throughout the millennium prior.

Of importance here then are the general trends in the DAIP and BIP types and other Cocal Period ceramics. Major changes in forms are evident from the Selin Period. There are no large serving jars reported in Cocal Period assemblages. DAIP types include narrow necked jars, likely for storage. Concha Simple Incised Punctate (a Late Cocal phase ceramic dating to AD 1400-1520) includes jars as a common form, but these appear to be small (22 cm body diameter). Most are very small (diameters averaging around 6cm) and jar forms are rare, even among

utilitarian wares (see Dennett 2007). Vases and bowls, incurving and outcurving, shallow and deep, large and small, are the most prominent forms. Dishes and plates (Moreno-Cortes and Wells 2006) and tecomate forms (Cuddy et al. 2020) are also reported frequently. Unfortunately, systematic excavations of Cocal period sites are rare and more detailed information on these forms and their sizes and temporal and spatial distributions is not available.

Type-variety (Healy 1993)	Time period (s)	Epstein 1957	Selin Farm and coastal NE	Elsewhere	Identifying attributes	Forms	Diameters
Selin Manatee Lug	Early Selin, Basic Selin, Transitional Selin	Manatee Ware (pp. 210-213)	HCN 4 trench 3; HCN 5 units 2,3,4; HCN 14; HCN 17; HCN 24	Dos Quebradas (Winemiller and Ochoa-Winemiller 2009)	Manatee head lugs, squat, cylinder like punctated legs; tan- orange surface slip; parallel incised horizontal line. Decoration on exterior; distinctive cylinder vases with lug handles, rounded bottoms, and tripod supports	Form is unusual, basically a cylinder vase but with slight restriction about the midbody. Rounded bases with three slanted outflaring supports, distinctive manatee lugs	Range from 10 to 39 cm, averaging 22cm, supports 1 to 3 cm in diameter
Maranonez Orange	Early Selin, Basic Selin, Transitional Selin	Plain Utility type with wide everted rims	HCN 5 units 2,3,4		Smooth hard orange surface finish, wider everted rims, yellow micaceous flecks in paste and surface, strap handles	<i>Ollas</i> - globular vessels with everted rims but no handles or appendages; bowls with everted rims are the most common form and have no handles or appendages; collared jars are fairly common, usually with rolled strap handles in the neck area	14 to 44 cm averaging 32 cm; rims measured 1.6 to 4.2 cm in width and averaged 3.5 cm
Guaimoreto Painted Raised Band	Early Selin	Painted Band Type (pp. 131, 151, 213, Fig 15)	HCN 4 units 1 and 3, trenches 1 and 2; HCN 5 2,3,4	Dos Quebradas ("Arena Blanca Red" in Winemiller and Ochoa- Winemiller 2009); Chichicaste ("Agalta Bictromo" in Winemiller and Ochoa-Winemiller 2009); Culmi Valley (Begley 1999)	Exterior has horizontal raised band below the rim, clusters of red or black vertical stripes above and below the band; hemispherical bowls	Consistently simple hemispherical bowl with some rims showing slight incurving tendency, no handles or supports, several have crack lacing repair holes	14 to 38 cm, most in 20- 28cm range

Table A-1 Summary data on the types and varieties described in the text.

Tegucigalpa Punctated Raised Band	Early Selin	Raised Band Ware (pp. 115,305)	HCN 4 trenches 1 and 3; HCN 5 2,3,4	Chichicaste ("Aguacate con Engobe" in Winemiller and Ochoa-Winemiller 2009); Culmi Valley (Begley 1999)	Raised horizontal band with evenly spaced punctation marks; incurving wall and simple hemispherical bowl with tripod supports, hollow anthropomorphic feet	Consistently simple curved wall or incurved wall bowl; feet are attached to the bottom and are hollow	14 to 28 cm, estimated
Chapagua Red Rimmed	Early Selin, Basic Selin	Red Rim Utility Type (pp. 144, 151)	Selin Farm units 2,3,4; HCN 4 all; HCN 1; HCN 11; Selin Farm Mounds 7, 10		Red painted lip, coarse paste, wide everted or outflaring rim jars	Diverse rim shapes, jars are the dominant form, especially everted rim jars; other forms were cylinder vases, hemispherical bowls, and flat plates or griddles (<i>comales</i>)	15 to 39 cm
Corocito Chalky	Basic Selin	Chalky Ware? Dos Quebradas Polychrome?	HCN 4 excavation units 1, 2 and trenches 1, 3; HCN 5 excavation unit 2	Dos Quebradas (possibly the same as Dos Quebradas polychrome? See Winemiller and Ochoa-Winemiller 2009)	Fine, chalklike orange-pink paste, worn surface, bowls with flaring walls, pedestal bases	Mostly bowls with outflaring or sometimes outcurving walls, rims are direct and rounded; possibility of two small rims from cylinder vases and one with modeled bat-like attachments; form is bowl with wall angle break, most had flat or concave bowl bases, some had pedestal bases	15 to 22 cm
Jericho Grooved	Basic Selin		HCN 5 units 2, 3, 4		Pronounced external horizontal groove below the rim, orange-brown slip, shallow bowls	Shallow bowls	12 to 36 cm with an average of 23 cm
Orion Orange Incised	Basic Selin		HCN 4 excavation unit 1, trenches 1 and 3; HCN 5 units 2,3,4		Orange slip, incised line decorations, composite silhouette bowls with tripod supports, hollow humanoid shaped feet	Only a deep composite silhouette bowl, breakline in bowl giving some vessels a Z-angle wall shape	20 to 30 cm, averaging 24 cm

Rio Aguan Incised Scroll	Basic Selin, Transitional Selin	Double Scroll Ceramic (pp. 248-253)	HCN 5 unit 3, HCN 8 (Santa Rosa site surface)	Dos Quebradas ("Telica Acanalado: Telica" see two figures on the right, Winemiller and Ochoa-Winemiller 2009:22)	Incised double line scroll motif, brown to orange slip, tripod composite silhouette bowls, slab supports, sometimes with vertical jab marks or mammiform or tube like supports	Nearly always bowls with outcurving walls and often Z-angle breaks resulting in composite silhouette profiles; rims tend to be exterior thickened; sometimes mammiform supports are found on very shallow incurving wall bowls	18 to 42 cm, averaging 30 cm
Cristales Incised	Transitional Selin		HCN 5 unit 3		Incised double curvilinear line motifs on vessel exterior, hollow bulbar feet, usually tripod with stylized humanoid faces; often with incised scroll decoration; outflaring wall dishes	Consistently sharply outflaring-walled dishes with hollow tripod supports, rims are mostly rounded	10 to 36 cm, averaging 24cm
San Antonio Carved	Transitional Selin		HCN 5 unit 3	Chichicaste (see also their "Dorina Abstracto Inciso Punteado: Eliasar" Winemiller and Ochoa-Winemiller 2009) and Culmi Valley ("Eliasar" Begley 1999: 133- 134, Figure 4.3)	Carved and incised decoration in geometric patterns and/or stylized faces, elaborate carved applique lugs depicting stylized animal forms; orange to brown slip; cylinder vases with lugs and ring stand bases	Standard form is cylinder vase atop a ring stand; some tendency towards outcurving rim but most are vertical and straight; sometimes globular jars mounted on ring stands but this is rare (see Strong 1935: plate 24a)	12 to 28 cm, ring stand diameters range from 14 to 32cm

APPENDIX B:
EXCAVATION DESCRIPTIONS

Mound P

This excavation was designated Operation 03. Four depositional events (A-D) were recorded in this excavation based on changes in the orientation and/or the nature of the deposits (Figure B-1). The first and most recent deposit (A) marks the last activity at the mound, with an ultimate summit to the north of our excavations, based on the slant of the deposits in that direction. A radiocarbon date for this mound (*cal* AD 543-602, $p = 0.95$, Calibrated at 2σ with the program CALIB 7.1 using IntCal 2013 [Reimer et al. 2013; Stuiver and Reimer 1993]) was taken from near the bottom of this deposit.

The second deposit (B) is made up of material that slants in the other direction, suggesting a summit to the south of our excavations for this episode. B is also distinguished from A by a higher relative abundance of conch shell (*Melongena melongena*), as well as a layer of mussel (*Mytilopsis sallei* and *Brachidontes exustus*) and clam (*Anomalocardia flexuosa* and *Donax striatus*) that marks the boundary between the two deposits. This pattern is repeated by another layer of mussel and clam between deposits B and C.

Deposit C appears to predate both A and B, while the relative timing of the latter two are unclear. There is also some weathering of materials and a slight increase in the amount of sediment in the materials at the top of Deposit C, suggesting this layer may have been exposed

prior to the deposition of the later deposits. These deposits are similar in their composition, in the layering of alternate bands of shell and ceramics in the profile, the presence of discrete horizontal layers, and lack of soil and abundance of voids in the matrix. The sediment is very loose and a greyish brown (10 YR 5/2) to dark greyish brown (10 YR 3/2) color that ranges from sandy loam to loam.

In Deposit C the sediment becomes a dark yellowish brown (10 YR 3/4 or 4/4) silty clay loam. C also has a slightly elevated amount of lithic material (especially FCR) relative to the other layers and an increase in the density of ceramics. Below C is a deposit labeled D that is made up mostly of ceramic, oyster, and a higher amount of sediment relative to subsequent deposits. The sediment becomes moister, more abundant and compact, and more clay rich towards the bottom of C/top of D. The second radiocarbon date obtained from this mound (*cal* AD 428-574; $p = 0.95$, Calibrated at 2σ with the program CALIB 7.1 using IntCal 2013 [Reimer et al. 2013; Stuiver and Reimer 1993]) came from the bottom of this deposit just above sterile where it was directly associated with a Bonito Incised type sherd. There is also a slight change in the sediment here to a sandy yellow loam. Bone in this deposit is often burnt. Charcoal was common throughout all layers within this deposit. E is a sterile dark yellowish brown (10 YR 4/4) sandy clay.

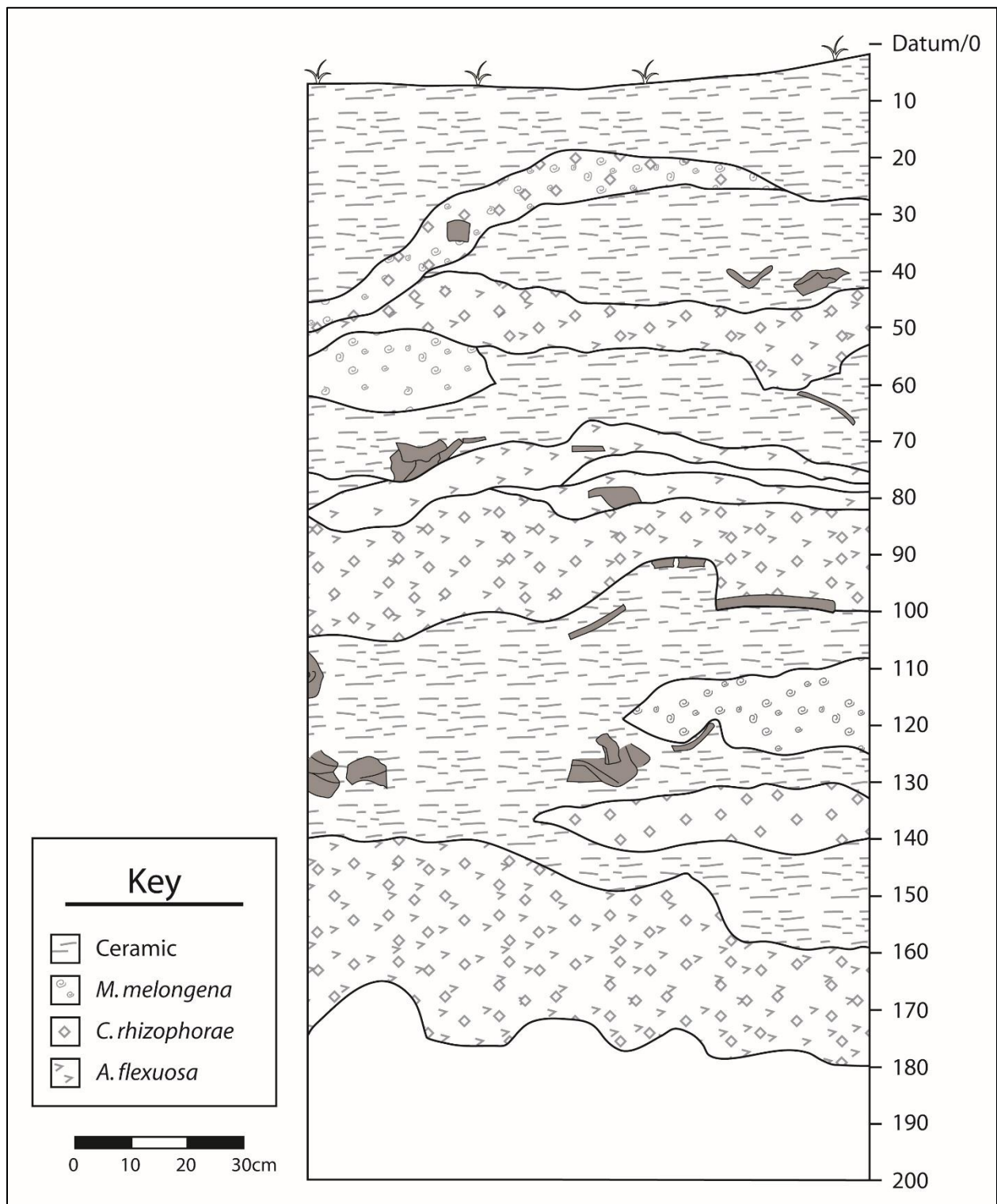


Figure B-1 Profile drawing of the west wall of Mound P (Operation 03).

Mound U

Mound U excavations during the 2013 pilot season were designated as Operation 02 and during the 2016 season as Operation 04. Operation 04 was more extensive and is detailed here. Operation 02 is described in greater detail in the 2013 field season report on file at the Honduran Institute of Anthropology and History (IHAH; Goodwin 2014). Seven tentative deposits were identified following excavation (A-G; Figure B-2), although there is little evidence that they were separated by any great length of time. Deposit A is a mixture of sediment and conch, with a higher relative abundance of sediment than any other deposit in this mound. Little to no ceramic was present in this deposit, particularly in the western portion of the suboperations. Unlike most of the deposits beneath it, deposit A does not slope from west to east and could represent a more recent depositional episode. Its difference in composition supports this interpretation. Soil here is a dark grayish brown (10 YR 4/2) to dark yellowish brown (10 YR 3/4 or 4/4) silty clay loam and very loose due to the voids created by densely stacked conch shells. Deposits B through D are very similar in their composition and similar to deposits in Mound P. Alternating layers of shell and ceramic 2-5 cm thick are dispersed within each deposit, with thin layers of mussel shell (*Brachidontes exustus*) throughout. Deposit C differs slightly from the others in that the shell, oyster, and conch seem to be more thoroughly mixed, whereas deposits B and D exhibit these alternating layers more clearly but are otherwise indistinguishable in composition. A whole vessel recovered during the 2013 test excavations and another during the 2016 excavations were both located within these deposits, which make up the bulk of the mound.

The top of deposit E is marked by a clear repeating pattern of conch, oyster and ceramic, and then conch again along the western wall. It is also distinct in that it tapers off on the northern and southern walls about halfway through the unit. Deposits F-G do not slope towards the east

like deposits B-D, suggesting a unique episode or episodes of deposition beginning at the base of the mound and ending here. Deposit F is roughly 50 cm thick and is composed of nearly solid layers of ceramic, with some sparse oyster and conch throughout. It is charcoal rich, particularly at its base. The soil changes to a dark brown (7.5YR 3/3) silty loam. Deposit G is a dark yellowish brown clayey sand (10 YR 4/4), increasingly compact, and is marked by a dramatic decrease in artifact density. Sherds near the bottom of this deposit are sparse and so highly eroded as to be rounded. This may mark a flooding event. Deposit H shifts to very a yellowish brown compact sandy clay sediment (10 YR 5/4) and is sterile.

Ceramic materials ranged from 15% (in the latest levels, deposit A) to over 85% (in the earliest levels, deposit F) of the excavated volume. Only deposit A and the lots nearing sterile had any significant volume of sediment accumulation. The lack of any sediment throughout most of deposits D and E is notable, although deposits B-F are similar in their composition by volume. This homogeneity in composition and overall lack of soil development support the interpretation of these deposits as having been very rapidly deposited as primary refuse, likely in a single event. The similarity in the angle/slope and extent of the deposits throughout the unit also supports this interpretation. Deposit F is unique among all deposits encountered during excavation. The nearly .5 m-thick deposit of pure, mostly coarse ceramic strongly suggests a deliberate depositional event focusing on the disposal of cooking wares at the base of this mound.

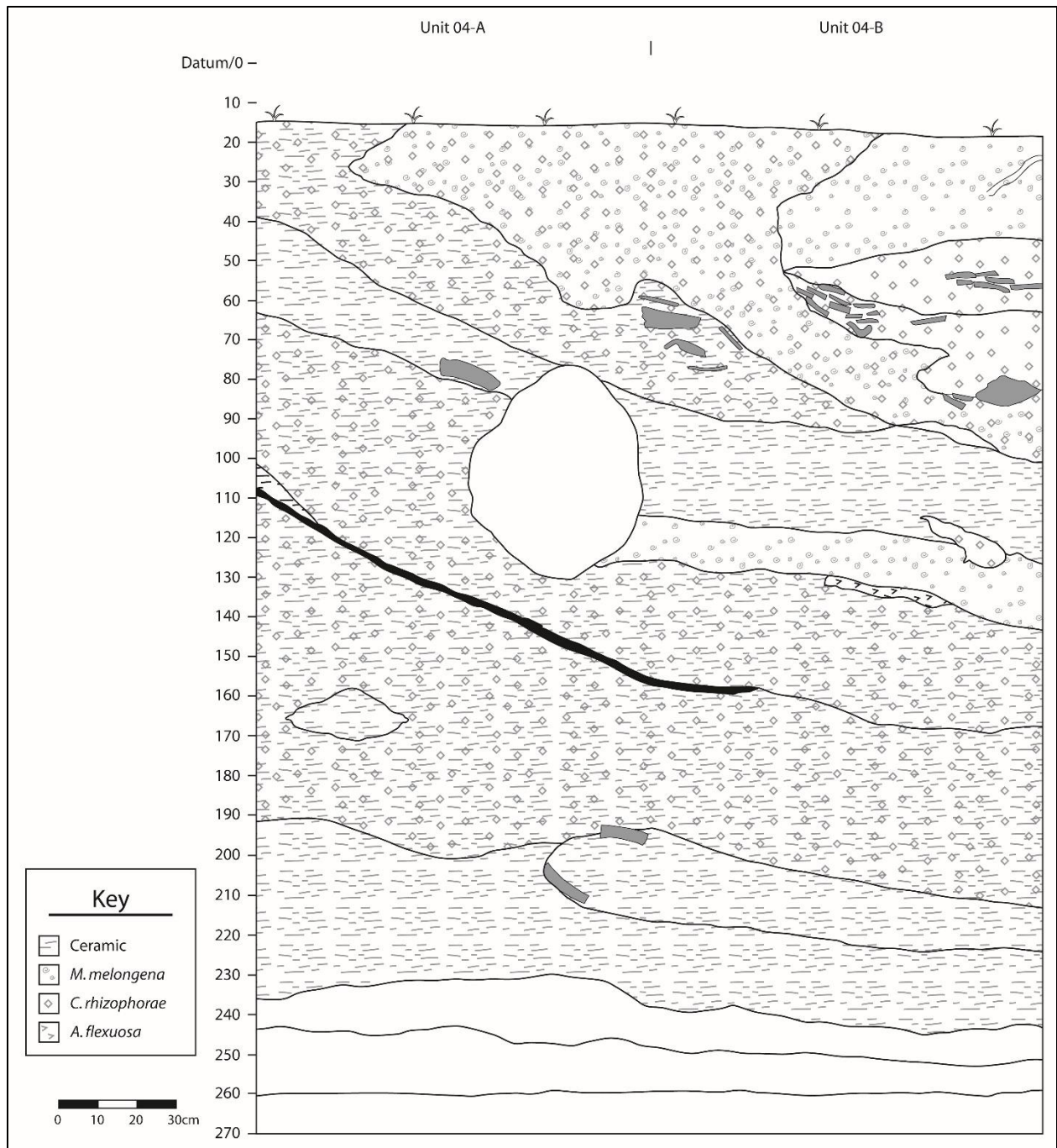


Figure B-2 Profile drawing of the north wall of Mound U (Operation 04).

Mound I

Excavations in Mound I were designated Operation 05. Descriptions of deposits here come primarily from Suboperation D, the deepest unit in this operation (Figure B-3). Deposit A is found just below the modern surface and is a very thin humus layer composed of a mixture of dark brown, (10 YR 2/2), loose, sandy loam and crushed oyster shell. The soil becomes increasingly darker (10 YR 3/2 very dark greyish brown) and increases in both silt and clay content until it becomes a silty clay loam towards the bottom of the deposit. Charcoal is abundant throughout. Fragments of charcoal were large, and some were readily identifiable as palm seeds. Bajareque was also abundant and often present in large fragments with visible impressions of the wattle frame (Figure 6-5). Compactness varies throughout this deposit and was dependent upon the quantity of shell present.

Two pits, one shallow and elongated (~.25 m deep and 1.25 m wide), and one deep and narrow (~.75 m deep and .75 m wide) were both present in this deposit. Neither was distinguishable during excavation, save for a lack of materials. The first is most visible in the east wall of Suboperation A and the latter in the south wall of SubOperation C (Figure 6-4). The origin or purpose of these is unclear. However, the matrix of Deposit A appears undisturbed above both pits, suggesting they were created and filled prior to the final episode of use of the mound. The deeper pit may represent a posthole for a large post used in the construction of a summit structure. Abundance of bajareque in these uppermost layers supports this.

The top and bottom of Deposit B run parallel to those of Deposit A throughout the excavation, with no apparent sloping of materials, suggesting that these two deposits were created in a relatively uniform manner that is distinct from the haphazard layering of the deposits below and of those seen in other mounds. This seems to be a pattern in the construction of this

mound, where a solid base layer of a uniform nature and flat surface is built before additional deposits are added. Both Deposits A and B date to the Transitional Selin period, on the basis of type-variety analyses and radiocarbon dating (see below). Soils here are loose and slightly lighter brown silty loams (10YR 43/ brown). The size and preservation of ceramic and shell increases slightly. Lithic materials are less dense while bone and carbon continue in large quantities. Bajareque is abundant here as well. Burning is apparent on some of the bajareque, shell, and most of the bone in these deposits as well. Together with the presence of the posthole above, this suggests a possible super structure was built and then burnt and mixed in with refuse in this deposit. Bajareque was not common in other mounds and, when present, was very small in size (<5 cm), indicating other mounds did not possess the same kind or scale of a superstructure. The instability of the deposits in the other excavated mounds would also not have served well as a base for summit architecture, unlike Mound I.

Deposit C is marked by an overall increase in the abundance of materials. This abundance matches that of deposits from Mound U, and type-variety analyses of recovered ceramics (see below) suggest this deposit marks a transition to a Basic Selin period phase. Radiocarbon dating from this deposit supports this conclusion. Bone and carbon were not as abundant as above, while still relatively more abundant than in other mounds. Bone recovered was mostly from fish. Ceramics at the top of this layer are weathered, suggesting they were exposed. Ceramics and oyster are much denser here, and voids are more common than sediment, which is sparse and very loose, and still a silty clay loam but of a slightly lighter color (10 YR 3/3 dark brown). Slight slopes in the profiles, particularly in the south wall of SubOperation B and north wall of SubOperation D suggest the deposition of this deposit was uneven. Horizontally discrete layers are increasingly identifiable. Conch is increasingly abundant relative

to oyster as opposed to deposits above but is still present in lesser quantities overall. Mussels appear for the first time in this deposit (*Mytilopsis sallei* and *Brachidontes exustus*), along with Atlantic bubble shells (*Bulla striata* or *Oliva* sp.), which are rare elsewhere at the site.

Deposit D is very similar to Deposit C in the abundance and composition of materials and a change was only perceptible in parts of the excavation, suggesting this might just be an uneven episode of deposition of the same deposit. Ceramic fragments are large but fragile, often breaking as they are removed. Most are coarse. Groundstone and FCR are abundant and most are large (over ~15 cm). Deposit E is a thin layer with relatively sparse material with a sandy-silt sediment of a lighter color (7.5 YR 3/3 dark brown). This is followed immediately by deposit F, which is composed of almost pure oyster that is clearest in the west walls of SubOperations C and D but is otherwise hard to distinguish from deposit G, which appears to be composed of the same brown, loose soil (identical again to those above deposit E) that is present but scarce in deposit F. Both of these deposits contain little ceramic material relative to those above (deposits C-D) but are not as depleted in materials as deposit E. Deposit F might simply be a discrete horizontal deposition of a pot or basket full of oyster shells within the larger deposit G. The density of lithic materials, mostly FCR, was high at the bottom of deposit G. The depositional events that resulted in these layers seem to have been related, as they uniformly overlay uneven deposits beneath them (deposits H-L).

Deposit H and those beneath it (deposits I-L) slope slightly from west to east, suggesting the summit for this phase of the mound was located somewhere to the west. The southern extent of this phase of construction of the mound appears to have not been far from the southern edge of our excavations, given that these deposits taper considerably within the excavated area and are much more condensed in the southern portion of the excavated Suboperations where deposit G,

clearly later, fills in the sloped area above deposit H. Type-variety analyses of recovered ceramics (see Chapter 9) and radiocarbon dates (from Deposit J) suggest that this phase of the mound was built during the Early Selin period. Deposit H is composed mostly of oyster with some conch and mussel, most of which is fragmentary. Bone and charcoal are abundant. Deposit I is a brown soil with oyster and ceramic mixed throughout. Soil here is increasingly clay rich, and this pattern continues through to deposit K. Deposit J is marked by a distinct single layer of oyster shell at its top, followed by a brown, clay and charcoal rich soil with abundant clam relative to other deposits. This deposit also has a low density of ceramic mixed throughout. Soil changes here to a dark brown (7.5 YR 3/4) clay loam. A similar pattern to that above repeats at the break between deposits J and K, with thin shell layers atop the yellow, clay and charcoal rich soils of deposit K. Ceramic and shell continue in low quantities, sparsely mixed throughout. Sherds are mostly eroded and rounded.

Deposit L is a sterile layer of sandy clay loam (10 YR 4/4 dark yellowish brown) with some gravelly-sand, suggesting deposition by water. Flooding from the lagoon and/or the Silin River seem likely in the lowest excavated lots of this mound, as was seen in Mound U as well. Mound P is on higher ground to the south and west of these mounds, away from the lagoon, and its base was thus likely spared these flooding episodes. The central portion of the site was built on that same area of ground, likely to avoid these types of issues.

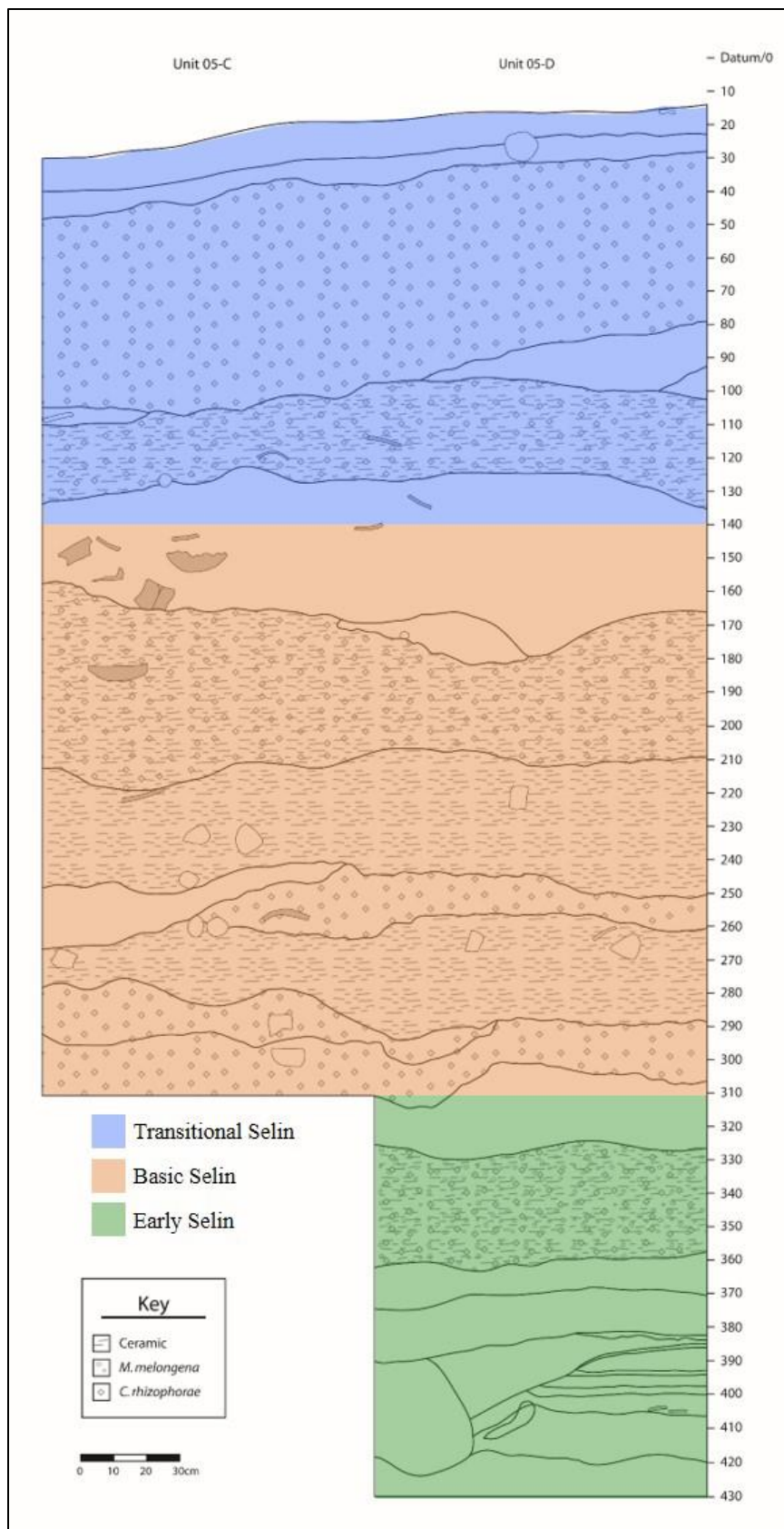


Figure B-3 Profile drawing of the north wall of Mound I (Operation 05).

Mound O

Operation 01, a 1x.5 m test unit, was placed into the central peak of Mound O (Figure B-4). The first deposit, A, was a thin layer of humus that had formed after the abandonment of the structure. Deposit B was a ceramic and groundstone rich layer with bone found throughout. Soil was a loose dark grayish brown (10YR 4/2). This layer was 40-50 cm thick. At around 50 cm below the ground surface, the top of Deposit C, soil became slightly darker (very dark greyish brown 10 YR 3/2) and more clay rich. The density of ceramic material decreased significantly. The soil was specked with bits of burnt clay or bajareque and charcoal. At around 1.3 m below the surface a lens of crushed oyster shell marked the top of a layer of thick ceramic resting on top of a distinct deposit, Deposit D, that sloped gently from north to south in the unit. Deposit D was a mixture of crushed shell with yellowish brown (10YR 5/4) sand and charcoal with grayish brown soil (10 YR 5/2). This deposit was only about 30cm thick. Beneath this was another layer of small crushed shell, mostly clam (*Donax* sp.), sloping in the opposite direction of the one above it, mixed with burnt and poorly preserved bone and ceramic. This deposit, Deposit E, contained the same soil as above but with increased amounts of charcoal, and I am interpreting it as a possible household feasting event to commemorate the construction of the mound. Beneath this, at around 1.7cm below the surface, sterile yellowish brown sand was encountered (Deposit F).

I interpret the shell layers throughout the mound as indications of actions or rituals related to the construction of each phase of the use of the mound. Deposits E and F probably represent one or maybe two early phases of construction and use of the mound. The shell and ceramic layer at the bottom of Deposit C marks the beginning of fill added to support Deposit B. This recalls the use of shell by current indigenous groups in the region to create level surfaces (MacKenzie and

Lopez 1997:30). Whether Deposit B marks the beginning of another phase of fill to support a structure or is the result of terminal occupation or abandonment of the mound is unclear. It is clear that the composition of this mound differs drastically from that of the shell midden mounds. Fill is primarily clay rich soils, even among the ceramic rich layers near the surface. Shell does not form any significant portion of the fill and is not nearly as abundant or as well preserved as in the shell midden mounds. Ceramics indicate there may have been some mixing of deposits (see Chapter 6), consistent with the use of refuse for fill material, but that overall two phases of occupation were likely represented by the upper and lower portions of the mound. Radiocarbon dates support this interpretation as two dates, one from the top and one from the bottom of a core extracted from this mound in 2019 returned dates of *cal AD 677-866* and *cal AD 575-652*, respectively ($p = 0.95$, Calibrated at 2σ with the program CALIB 7.1 using IntCal 2013 [Reimer et al. 2013; Stuiver et al. 2019]; see below; Reeder-Myers and Goodwin 2019).

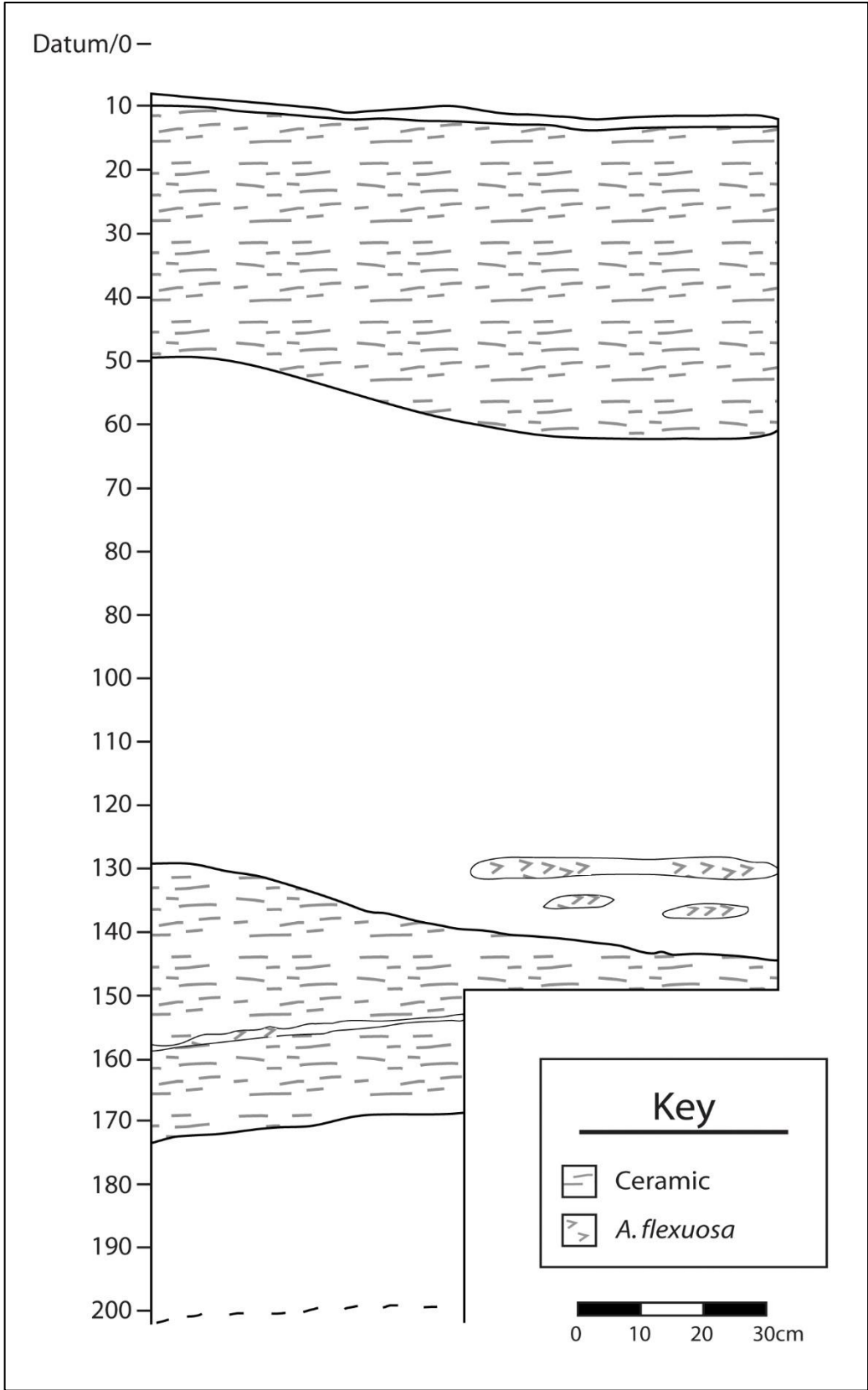


Figure B-4 Profile drawing of the east wall of Mound O (Operation 01).

APPENDIX C:

SUPPLEMENTAL FAUNAL DATA

Table C-1 Modified bone and shell from Mound P.

Lot	Species name	Species common name	Modification detail
1	<i>Oliva scripta</i>	Small olive	Shell bead (perforation)
3	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
3	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
3	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
3	Indeterminate	Possible conch fragment	Shell pendant/disk (carved)
4	Crocodylian	Alligator	Tooth pendant (perforation)
4	Indeterminate	Unknown mammal	Bone bead (perforation)
4	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
4	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
4	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
4	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
4	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
4	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
4	<i>Crassostrea rhizophorae</i>	Oyster	Shell bead (perforation)
4	<i>Mytilopsis sallei</i>	Small clam	Shell bead (perforation)
5	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
6	<i>Tayassu pecari</i>	Peccary	Canine pendant (perforation)
6	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
6	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
6	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
6	Indeterminate	Possible conch fragment	Shell pendant/disk (carved)
6	<i>Oliva scripta</i>	Small olive	Shell bead (perforation, carved)
6	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
6	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
6	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
6	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
6	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
6	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
6	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
7	<i>Oliva scripta</i>	Small olive	Shell bead (perforation, carved)
8	Shark	Shark	Bone bead (carved vertebra)

8	Shark	Shark	Bone bead (carved vertebra)
8	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
9	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
9	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
10	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
11	Large felid		Tooth molar pendant/whistle
11	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
11	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
12	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
12	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
12	<i>Protothaca granulata</i>	Clam	Shell bead (perforation)
15	Shark	Shark	Bone bead (carved vertebra)
15	Shark	Shark	Bone bead (carved vertebra)
15	Shark	Shark	Bone bead (carved vertebra)
15	Shark	Shark	Bone bead (carved vertebra)
15	Shark	Shark	Bone bead (carved vertebra)

Table C-2 Modified bone and shell recovered from Mound U.

Lot	Species name	Species common name	Modification detail
2	<i>Lobatus gigas</i>	Conch	Axe (carved)
3	<i>Lobatus gigas</i>	Conch	Cup (carved)
NA	<i>Lobatus gigas</i>	Conch	Mask (carved)
15	Shark	Shark	Bone bead (carved vertebra)
17	<i>Odocoileus virginianus</i>	Deer	Tooth pendant (perforation)
17	<i>Crassostrea rhizophorae</i>	Oyster	Shell bead (perforation)

Table C-3 Modified bone and shell recovered from Mound I.

Lot	Species name	Species common name	Modification detail
1	<i>Protothaca granulata</i>	Clam	Shell pendant/disk (carved)
2	Indeterminate	Conch?	Shell pendant/disk (carved)
2	Unknown fish		Bone bead (perforation)
2	Unknown fish		Bone bead (perforation)
3	<i>Crassostrea rhizophorae</i>	Oyster	Shell bead (perforation)
3	<i>Melongena melongena</i>	Conch	Shell pendant/disk (carved)
3	<i>Oliva scripta</i>	Small olive	Shell bead (perforation, carved)
4	<i>Oliva scripta</i>	Small olive	Shell bead (perforation, carved)
5	Unknown fish		Bone bead (perforation)
6	<i>Prumun apicinum</i>	Small olive	Bone bead (perforation)
7	<i>Oliva scripta</i>	Small olive	Shell bead (perforation, carved)
7	Unknown fish		Bone bead (perforation)
7	Unknown fish		Bone bead (perforation)
7	Unknown fish		Bone bead (perforation)
10	<i>Conus</i> sp.	Small olive	Shell bead (perforation, carved)
10	<i>Prumun apicinum</i>	Small olive	Bead (perforation)
10	Unknown fish		Bone bead (perforation)
10	Unknown fish		Bone bead (perforation)
12	Unknown fish		Bone bead (perforation)
14	<i>Crassostrea rhizophorae</i>	Oyster	Shell bead (perforation)
14	Unknown fish		Bone bead (perforation)
17	<i>Strombus</i> sp.	Conch	Shell pendant (carved, polished)
17	Unknown fish		Bone bead (perforation)
17	Unknown fish		Bone bead (perforation)
17	Unknown fish		Bone bead (perforation)
18	Unknown fish		Bone bead (perforation)
19	Unknown fish		Bone bead (perforation)
19	Unknown fish		Bone bead (perforation)
20	<i>Prumun apicinum</i>	Small olive	Shell bead (perforation)
20	<i>Prumun apicinum</i>	Small olive	Shell bead (perforation)
20	Unknown fish		Bone bead (perforation)
21	<i>Tellina</i> sp.	Small clam	Shell bead (perforation)
22	<i>Bulla striata</i>	Small olive	Shell bead (perforation)
22	<i>Crassostrea rhizophorae</i>	Oyster	Shell bead (perforation)
22	<i>Prumun apicinum</i>	Small olive	Shell bead (perforation)
23	<i>Bulla striata</i>	Small olive	Shell bead (perforation)
23	<i>Bulla striata</i>	Small olive	Shell bead (perforation)
25	Unknown fish		Bone bead (perforation)
34	Unknown fish		Bone bead (perforation)
34	Unknown fish		Bead (perforation)
37	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
37	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)
37	<i>Anomalocardia flexuosa</i>	Clam	Shell bead (perforation)

APPENDIX D:
SUPPLEMENTAL RESIDUE DATA

Table D-1. Supplemental residue data by sample analyzed.

Mound	Op	Lot	Sherd ID	Sample	Weight (mg)	δ13C	δ15N
P	3	1	21	wag 058	30.68	-18.12	9.61
P	3	2	1	wag 059	20.91	-17.38	
P	3	2	2	wag 060	18.58	-21.92	
P	3	2	4	wag 062	31.83	-21.01	
P	3	2	10	wag 063	18.65	-22.33	
P	3	2	12	wag 064	30.85	-24.60	
P	3	2	15	wag 065	39.96	-23.73	8.70
P	3	2	23	wag 067	31.6	-24.32	1.69
P	3	2	26	wag 068	31.86	-22.88	4.62
P	3	2	27	wag 069	25.71	-22.48	
P	3	2	29	wag 070	32.01	-18.71	9.05
P	3	4	14	wag 082	30.84	-21.41	16.28
P	3	4	22	wag 085	25.77	-25.65	
P	3	4	41	wag 089	11.66	-23.93	
P	3	5	1	wag 092	35.21	-22.46	7.94
P	3	6	1	wag 094	30.06	-22.38	8.26
P	3	6	20	wag 098	36.26	-23.85	6.40
P	3	6	27	wag 099	56.45	-26.20	
P	3	6	41	wag 102	24.8	-24.88	
P	3	8	1	wag 109	31.61	-23.58	
P	3	8	6	wag 112	31.29	-24.53	
P	3	8	12	wag 113	50.89	-24.94	
P	3	8	18	wag 119	31.32	-20.70	
P	3	9	18	wag 132	31.05	-23.83	11.81
P	3	10	1	wag 134	16.06	-17.93	3.49
P	3	10	6	wag 137	31.74	-24.26	
P	3	10	8	wag 138	31.5	-24.02	
P	3	10	10	wag 139	10.72	-22.97	
P	3	10	12	wag 141	40.82	-25.92	
P	3	10	14	wag 142	30.8	-13.67	7.53
P	3	10	29	wag 144	19.02	-24.97	

P	3	10	41	wag 145	13.56	-20.86	
P	3	10	43	wag 146	42.55	-23.16	
P	3	12	1	wag 155	32	-24.49	1.40
P	3	12	21	wag 166	28.21	-14.88	9.08
P	3	13	7	wag 173	31.72	-22.47	8.24
P	3	14	4	wag 181	34.54	-24.08	
P	3	14	7	wag 183	31.71	-23.58	
P	3	14	65	wag 192	38.01	-25.96	
P	3	15	1	wag 193	10.42	-23.65	
P	3	15	2	wag 194	30.72	-20.82	4.88
P	3	15	5	wag 195	29.82	-23.49	
P	3	15	8	wag 197	29.69	-26.34	
P	3	15	10	wag 198	31.52	-25.12	
P	3	15	23	wag 201	29.89	-24.53	
P	3	16	1	wag 204	30.22	-16.05	6.44
P	3	16	2	wag 205	21.34	-23.12	
P	3	16	10	wag 212	20.07	-21.65	6.48
P	3	16	13	wag 213	10.82	-24.23	12.85
P	3	17	1	wag 221	31.14	-24.77	4.00
P	3	18	2	wag 230	20.15	-23.57	4.65
P	3	18	3	wag 231	31.82	-22.51	4.41
P	3	18	4	wag 232	14.14	-23.78	
P	3	18	7	wag 233	30.34	-24.72	
P	3	18	9	wag 234	31.3	-25.73	
P	3	18	16	wag 235	51.58	-25.52	6.05
P	3	18	18	wag 236	45.86	-23.88	15.65
P	3	19	1	wag 237	30.56	-23.89	6.86
U	4	1	4	wag 243	29.31	-22.59	6.30
U	4	2	4	wag 244	14.11	-25.68	6.90
U	4	2	6	wag 245	12.87	-23.04	7.35
U	4	2	15	wag 246	30.66	-23.68	8.48
U	4	2	17	wag 247	31.45	-19.76	9.12
U	4	3	2	wag 250	29.53	-24.79	6.57
U	4	4	23	wag 255	19.67	-24.25	
U	4	6	10	wag 261	20.5	-24.32	
U	4	7	1	wag 265	44.39	-23.47	
U	4	7	2	wag 266	29.65	-24.31	5.40
U	4	8	1	wag 267	30.97	-24.93	
U	4	8	4	wag 273	42.03	-22.68	
U	4	8	5	wag 277	30.56	-24.08	5.90
U	4	8	6	wag 278	12.58	-22.39	
U	4	9	2	wag 281	29.65	-19.16	11.61
U	4	9	3	wag 282	30.56	-25.09	
U	4	10	2	wag 297	26.96	-22.56	

U	4	10	3	wag 298	30.2	-23.73	
U	4	10	9	wag 301	14.29	-24.37	
U	4	11	6	wag 311	29.63	-25.92	8.72
U	4	11	7	wag 312	30.51	-25.33	
U	4	11	22	wag 316	29.71	-23.88	6.86
U	4	12	16	wag 327	18.57	-24.40	19.58
U	4	13	2	wag 330	41.3	-23.76	7.88
U	4	13	11	wag 333	45.6	-23.16	6.45
U	4	14	2	wag 335	14.11	-24.27	
U	4	16	6	wag 339	21.36	-20.06	13.12
U	4	16	10	wag 341	36.17	-25.03	13.12
U	4	16	10	wag 342	21.24	-24.09	
U	4	18	74	wag 348	38.64	-24.93	
U	4	19	5	wag 350	37.87	-24.57	
U	4	20	1	wag 358	40.02	-24.14	
U	4	20	5	wag 360	12.01	-23.60	
U	4	20	21	wag 363	20.22	-23.74	
U	4	21	11	wag 369	31.11	-23.52	5.36
U	4	22	1	wag 376	25.81	-22.16	10.55
U	4	22	2	wag 377	30.2	-18.51	11.05
U	4	22	9	wag 380	20.02	-23.38	
U	4	22	18	wag 383	53.85	-24.42	
U	4	22	34	wag 387	30.87	-22.06	
U	4	23	1	wag 388	29.89	-23.48	
U	4	23	2	wag 389	29.95	-24.24	7.20
U	4	23	8	wag 393	20.06	-19.76	5.44
U	4	24	1	wag 396	11.99	-23.20	
U	4	24	1	wag 397	31.1	-24.59	
U	4	24	2	wag 398	30.63	-19.91	5.75
U	4	24	3	wag 399	30.91	-21.89	5.93
U	4	24	4	wag 400	30.85	-24.02	
I	5	1	4	wag 402	30.86	-25.47	6.37
I	5	2	2	wag 404	30.1	-21.00	7.18
I	5	2	5	wag 405	29.45	-22.25	3.91
I	5	2	12	wag 407	16.7	-22.70	9.36
I	5	3	18	wag 411	29.51	-24.80	7.33
I	5	4	1	wag 415	17.59	-24.76	
I	5	4	1	wag 416	39.67	-23.95	8.46
I	5	4	2	wag 417	30.51	-25.22	
I	5	6	1	wag 424	34.83	-26.83	11.18
I	5	6	1	wag 425	54.06	-23.97	10.99
I	5	6	5	wag 427	30.18	-24.37	7.88
I	5	6	7	wag 429	36.02	-24.28	8.38
I	5	6	8	wag 430	31.8	-24.52	

I	5	6	13	wag 431	31.36	-23.89	
I	5	6	15	wag 432	31.85	-22.59	
I	5	6	32	wag 437	37.76	-24.57	
I	5	8	1	wag 444	13.67	-24.28	
I	5	8	4	wag 445	41.82	-21.74	9.37
I	5	9	2	wag 448	41.09	-24.37	
I	5	9	3	wag 449	29.72	-18.64	
I	5	9	28	wag 458	31.07	-20.96	
I	5	10	2	wag 459	14.96	-26.76	
I	5	10	10	wag 462	16.96	-24.42	11.43
I	5	10	23	wag 468	37.95	-25.18	5.55
I	5	10	44	wag 474	46.5	-24.73	5.09
I	5	12	1	wag 479	20.23	-25.49	8.15
I	5	12	1	wag 480	21.75	-21.31	7.07
I	5	12	2	wag 481	30.33	-22.42	4.89
I	5	12	3	wag 482	31.37	-23.76	6.59
I	5	12	13	wag 485	30.85	-24.56	
I	5	12	25	wag 489	30.08	-24.83	2.23
I	5	13	2	wag 493	29.61	-24.81	6.89
I	5	13	3	wag 494	31.96	-24.77	7.60
I	5	14	3	wag 507	34.41	-24.85	
I	5	15	3	wag 516	29.8	-23.09	9.60
I	5	16	10	wag 534	13.18	-24.03	12.18
I	5	18	1	wag 544	30.53	-24.51	
I	5	18	5	wag 547	12.16	-22.62	
I	5	18	26	wag 552	29.62	-22.27	6.45
I	5	19	6	wag 554	51.61	-21.64	
I	5	20	1	wag 565	55.25	-22.74	4.86
I	5	20	16	wag 568	12.39	-24.09	-1.22
I	5	21	20	wag 577	29.47	-24.42	5.57
I	5	22	1	wag 590	31.53	-21.97	5.07
I	5	22	2	wag 591	13.31	-23.99	-1.22
I	5	22	16	wag 594	30.61	-23.19	8.72
I	5	24	11	wag 608	14.06	-24.36	-1.22
I	5	24	15	wag 610	30.72	-24.90	
I	5	24	23	wag 613	31.16	-26.89	6.87
I	5	26	2	wag 626	13.04	-23.42	-1.22
I	5	26	22	wag 632	29.65	-23.69	
I	5	26	27	wag 635	30.3	-23.71	
I	5	28	1	wag 647	14.55	-24.29	-1.22
I	5	29	35	wag 666	29.36	-23.89	9.47
I	5	30	4	wag 669	29.75	-24.86	
I	5	30	9	wag 670	31.85	-21.55	5.23
I	5	30	15	wag 672	13.63	-21.95	12.62

I	5	30	35	wag 677	51.21	-24.12	1.49
I	5	30	36	wag 678	18.39	-22.22	5.27
I	5	30	40	wag 679	30.77	-23.84	
I	5	32	9	wag 689	31.22	-25.52	
I	5	32	18	wag 692	15.68	-23.33	
I	5	32	23	wag 696	30.52	-23.68	
I	5	33	1	wag 700	31	-24.47	
I	5	33	4	wag 702	31.03	-20.49	6.20
I	5	33	17	wag 703	31	-25.07	
I	5	34	1	wag 705	29.86	-24.86	
I	5	34	4	wag 707	30.5	-18.84	4.92
I	5	34	9	wag 709	17.93	-23.15	
I	5	34	11	wag 710	30.43	-23.23	4.12
I	5	34	28	wag 711	31.57	-23.93	
I	5	34	35	wag 713	30.52	-24.28	
I	5	35	9	wag 720	12	-22.56	
I	5	36	1	wag 724	19.95	-23.89	9.51
I	5	36	1	wag 725	31.66	-23.64	
I	5	36	14	wag 731	30.35	-21.56	6.72
I	5	37	1	wag 734	29.69	-22.02	5.85
I	5	37	5	wag 736	31.62	-24.43	
I	5	37	6	wag 737	31.38	-24.33	
I	5	38	1	wag 743	16.88	-22.34	
I	5	38	1	wag 744	30.3	-21.44	5.37
I	5	40	1	wag 751	13.07	-22.81	15.87
I	5	40	1	wag 752	30.98	-21.24	6.98
I	5	40	12	wag 754	42.6	-23.86	
I	5	40	21	wag 756	31.64	-24.93	3.90
I	5	41	2	wag 757	31.38	-22.80	4.95

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