Household Burials and Community Organization at Çatalhöyük, Turkey

Hillary Abraham
Senior Honors Thesis in the Department of Anthropology
University of Michigan
04/28/2013

ABSTRACT

Many changes took place during the Neolithic period in the Near East that can indicate changes in social organization, such as changes in domestic architecture and the organization of domestic space. Research at the Neolithic site of Çatalhöyük, located in modern day south-central Turkey, documented changes in the organization of domestic space occurring around 6500 B.C. Developments in organization of space at similar contemporaneous sites have led researchers to believe this reorganization represents the movement toward more independent households, but the details of changes in domestic space and associated material culture have not been examined in detail.

In order to better understand this transition, this study compiled the available mortuary data collected by Ian Hodder and his teams during the past twelve years of excavation. Based on previous studies of transitions in and interpretations of the mortuary record, this study examined the data to identify and interpret change in location of burials and changes in the location of adult and child burials. The structure of the mortuary analysis in this study revealed clear changes in the mortuary record that were previously unnoticed. This study integrates changes in household burials with shifts in domestic architecture and material culture. Together, the results of this analysis challenge the interpretation that households were becoming more autonomous. Instead, this study complicated the expectations of community development at Çatalhöyük.

While further study of this transition is necessary, this study stressed the importance of examining different classes of data in tandem and targeting periods of change at sites even when community development seems straightforward.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

The Neolithic Period and Çatalhöyük

In the Middle East over 10,000 years ago, many aspects of ancient people's lives began to change dramatically. This was the beginning of the Neolithic Period, when subsistence and social relations based on mobile foraging were replaced by settled village life based on agriculture and pastoralism, accompanied by increases in population. Together, "these fundamental changes eventually transformed the economic, social, and technological landscapes," (Kuijt and Goring-Morris 2002:362). The transition from nomadic to sedentary lifestyles, and the wider developments accompanying it, is referred to as the Neolithic Demographic Transition or NDT (Bellwood and Oxenham, 2008). As settlement size grew, different mechanisms were needed to integrate large numbers of unrelated households. Eventually, leaders and more centralized forms of organization emerged (Drennan and Peterson 2008). However, the processes that underlie these changes in social organization are debated. This study will examine the changes in household mortuary practices at Çatalhöyük to gain insights into changes in community organization at this important and very large Neolithic site.

Çatalhöyük, first excavated by James Mellaart in the 1960s, is one of the largest Neolithic sites found in Anatolia. This expansive and highly populated village was located in what is now south central Turkey, in the Konya Basin. The site of Çatalhöyük consists of two large mounds occupied during different time periods (Figure 1). The East Mound was occupied earlier beginning in the Late Pre-Pottery Neolithic B (LPPNB) period and ending in the Late Pottery Neolithic, from about 7400-6000 BC. The population shifted to the West Mound later during the Chalcolithic period, from 6000-5600 BC, although the exact time of the transition is debated. Research on the West Mound has expanded in recent years in an effort to understand the shift

from the East to West mounds, but as most of these studies have focused on the timing of the transition, rather than the culture of the West Mound, there is still much to be learned from future excavation (Marciniak and Cerniak 2007). The East Mound of Çatalhöyük was the more extensively studied of the two mounds, both by its first excavator, James Mellaart, and by the current excavation supervisor, Ian Hodder. Both researchers documented the ritual iconography, household architecture, and and human burial practices within the numerous layers of occupation of the East Mound.. Although Çatalhöyük has been excavated for over thirty non-consecutive years, the interpretations of evidence surrounding community organization are still debated.
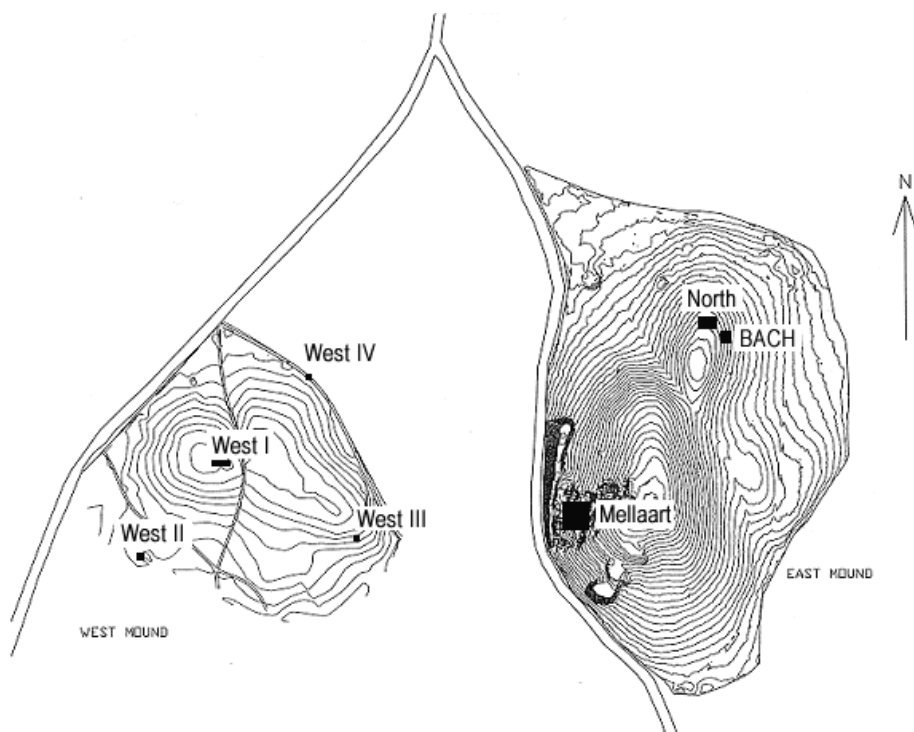
Figure 1: A topographic map of the East and West Mounds, highlighting areas of excavation. *After Çatalhöyük Newsletter (1998: fig. 5).*

Buildings at Çatalhöyük varied both in size and level of decoration, but all buildings had some form of art or wall painting, most included human burials, and all have space designated

for ritual activity (Hodder and Cessford 2004). This study focuses on the house as the center of ritual and domestic activity for the household, and examined house burials to investigate the developing relationship between the two. This study aims to provide a better understanding of community organization at Çatalhöyük, how it changed, and what this implies for future research at the site.

Changes in Houses and the Organization of Space

By the beginning of the Neolithic period, populations throughout the Middle East were living in settled villages (Banning 2003, Simmons 2007). The transformation to a sedentary lifestyle during the Neolithic Demographic Transition had a drastic effect on human thinking (Kuijt 2000). Aggregation, the process of people deciding to live in increasingly large communities, created new challenges such as more people compressed into compact living space, close neighbors, and a necessary increase in shared space. These changes were accompanied by new social norms governing how individuals interacted with their neighbors, families, and surrounding world (Kuijt 2000). The responses of communities to these problems were varied, but one way communities reacted to these issues was by adapting their use of space to better suit their developing needs.

Changes in the use of space, both public and private, are evident beginning in the Natufian period (for list of phases and accompanying dates, see Table 1). The Natufians, people living during this period, lived in semi-permanent houses with some burial space designated for publicly used cemeteries (Simmons 2007), while other burials were associated with houses. Public burial played a vital role in creating a common identity in these aggregating villages by

providing time and space for communal ritual activity, effectively maintaining cohesion in a group of individuals (Kuijt 1996). The subsequent time period, the PPNA, saw increased time and energy spent toward the construction of public architecture. One example is the construction of a monumental tower at Jericho. The tower at Jericho is sized at over 8m high, and could have been defensive or played a ritual role within the community (Simmons 2007). While the function of this tower is debated, it was a building not for an individual, but for the community; its massive size and the amount of stone required for erection clearly reflects a communal effort toward building this structure (Simmons 2007).

Period	Abbreviation	Approx. dates (BC)
The Natufian	-	12,500-10,000
Pre-Pottery Neolithic A	PPNA	10,000-8550
Pre-Pottery Neolithic B *	PPNB	8550-6750
Final Pre-Pottery Neolithic B/ Pre-Pottery Neolithic C/ Early Pottery Neolithic	- PPNC -	6750-6300
Pottery Neolithic/ Late Neolithic/ Chalcolithic	- - -	6300-5200

Table 1: A chronological list of phases and their dates. Each period is representative of a specific social structure, but the dates are approximated, and differ from site to site. (*After Croucher 2013 Table 2.1*).
* The PPNB is often broken down to Early, Middle, and Late PPNB, but these distinctions were unnecessary for this study.

Because public spaces created a place for communities to come together for group activities, they provide insights into community organization. However, Neolithic communities were made up of individual households, specifically a group of potentially related individuals living and working in the same house. As a result, archaeologists can study domestic architecture to infer the ways in which individuals adapted to aggregating communities and to gain insights

into the overall community organization. Studies of long-term developments of houses in Anatolia as well as the Levant clearly indicate changes in use of space in an effort to adapt to the changing social environment.

Ancient Neolithic houses vary widely in design, but Banning (2003) describes a useful typology of house forms based on overall shape and the number of separations within a house. These categories include round and rectangular buildings, each with or without internal partitions. Differences within these categories, such as in construction materials, construction methods, and housing arrangements, are sometimes due to geographic distribution, but more often display reactions to the needs of Neolithic and Pre-Neolithic communities (Banning 2003). The most obvious example, the shift from round buildings to rectangular buildings, is an indicator of the shift from semi-permanent settlements to fully sedentary societies (Figure 2). Round buildings were easy to assemble and resembled the tent structures nomadic societies used. Rectangular buildings required far more time and resources to construct, but additions could be easily attached and buildings could be constructed closer together, allowing a more compact use of space. The shift from round to rectangular buildings is evident at Jericho. During the PPNA, most houses in Jericho were pit houses, or unicellular round houses. During the PPNB, architecture shifted to unicellular and multicellular rectangular structures, indicating households were changing their use of space (Banning 2003).
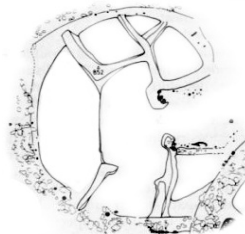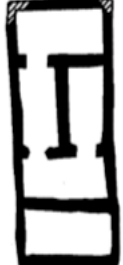
	Round c. 11,300-8550 BC*		Rectangular c. 8550 BC-Present*	
Example	 Unicellular Pit Houses: Nahal Oren *Modified from Banning (2003: pp 10)*	 Multicellular round house: Mureybet *Modified from Cauvin (1977: fig 10)*	 Unicellular rectangular house: Tabaqat al-Buma *Modified from Banning (2003: pp 14)*	 Multicellular rectangular house: Çayönü *Modified from Banning (2003: pp 8)*
Construction Methods	• Semi-Subterranean floors created by digging a pit • Mud brick walls • Compact earth floors • Easy to construct and deconstruct *(Banning 2003)*		• Terrain leveled prior to construction • Stone walls with timber posts, or mud brick when stone was scarce • Lime plaster floors for easily cleaned surfaces • Extensive construction process *(Banning 2003)*	
Social Organization	• Single or multi-person units • Generally correlate with nomadic or semi-nomadic communities *(Flannery 1972)*		• Houses more than one individual • Generally correlate with fully sedentary communities *(Flannery 1972)*	

Figure 2: Differences in architecture types over time. The changes in architecture are representative of changing community organization.
*The date rectangular housing replaced round are debated and varied from site to site, but the date shown represents the period when most communities had completed their transition to rectangular architecture and fully sedentary society.

Another example of houses changing their organization of space is the increasing

compartmentalization of multi-cellular houses in the Levant. During the Late Natufian, houses

contain an average of 1.6 compartments per 100 m^2. Four thousand years later, the number of

compartments displayed a ninefold increased (Figure 3). Kuijt (1999) argues this pattern of

increasing compartmentalization arose as a way households coped with high increased

population density within a village, and fulfilled a desire for personal space and ownership by

delineating space for privacy. While most of these changes took place slightly before Çatalhöyük

was established, they provide a good indication of how households created spaces for specialized

functions within their houses in response to the challenges larger aggregated communities

caused. This study builds off previous research on changes in use of space, and the delineation of

areas for a specialized function, in order to understand community organization at Çatalhöyük.
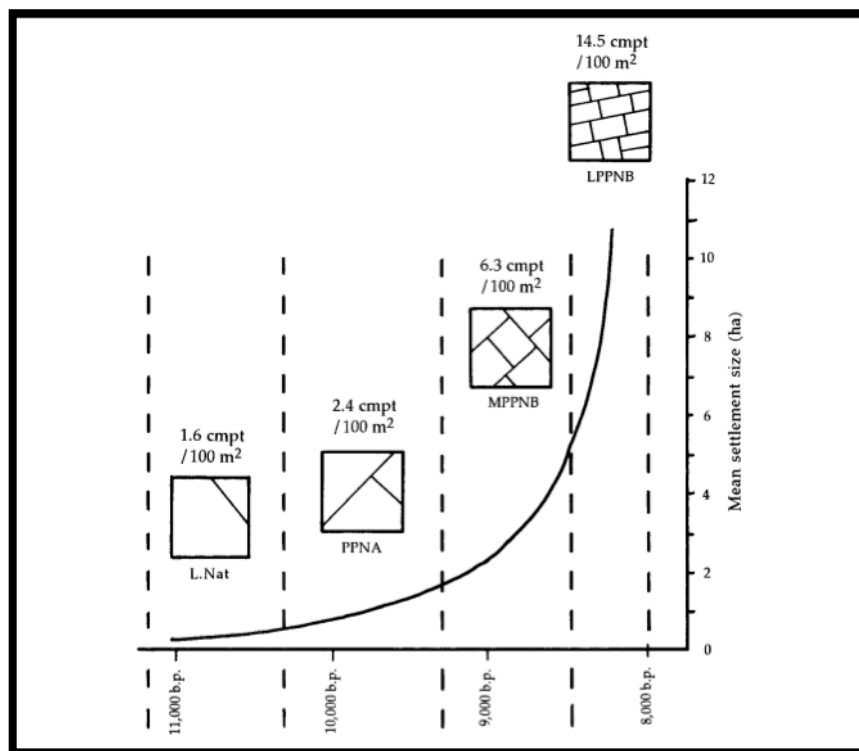
Figure 3: "Increase of total area of the five largest south-central Levantine Late Natufian
through LPPNB settlements compared to mean compartmentalization for the same periods."
After Kuijt (1999: fig. 2)

Public or Domestic? Changing Interpretations of Space at Çatalhöyük

At certain sites, the distinction between public and domestic space is straightforward. For example, the tower at Jericho clearly had a different function than the smaller residential buildings. Identifying public and domestic space has been an ongoing challenge at Çatalhöyük, and the interpretations about the function of certain larger buildings are continuously debated. When Mellaart (1962) first excavated the site in the 1960s, he discovered some buildings with distinct differences from the modest, clearly domestic buildings surrounding them. These buildings contained great quantities of bucrania installations, which were formed by making plaster molds out of bulls' horns and embedding them in walls or platforms. These structures also contained elaborate paintings on certain walls (i.e. never on the southern wall). They tended to be larger and had a tendency to contain a higher quantity of human burials than the less elaborate houses; however, the burials themselves were very similar (Mellaart 1964). These clear architectural differences led Mellaart to conclude these buildings housed a priestly class and were examples of specialized public ritual activity, so he referred to them as "shrines" (Mellaart 1962).

However, the currently ongoing excavations by Ian Hodder re-evaluated these structures using micromorphological data from Mellaart's shrines. These analyses showed that these buildings continuously displayed activities associated with domestic households, such as food preparation, consumption, obsidian working, and bone tool production (Matthews 1996), rather than sporadically used for ritual and ceremonial purposes. Additionally, recent excavations and reanalysis of the layers of wall plaster found the scale to which houses were decorated varied at any given time, but all houses contained decorated layers of plaster. The distinction between

"shrine" and "house" is therefore more complicated than once thought. In addition, nearly all buildings contained burials and many contained bucrania, although some included more decoration and were more elaborate than others (Düring 2001). Based on this evidence, archaeologists argue that the buildings Mellaart excavated did not have specialized ritual functions.

Currently, less than 10% of the site has been excavated, and while archaeologists cannot say for certain whether Çatalhöyük had buildings constructed solely as public ritual spaces, Hodder believes no open public ritual areas will be found. His belief is based off of extensive surface scraping and magnetometric survey, which found much of the site was "densely packed with housing" (Hodder 2006: 95). However, many researchers have examined the variation between more and less elaborate buildings. For example, Hodder and Pels (2010) classified houses with more burials, wall paintings, and installations as "History Houses." This study will use Düring's (2001) term "Ritually Elaborate Buildings," or REBs. Both researchers believe these houses had a connection with specific groups, represented through neighborhoods, within the community. Neighborhoods at Çatalhöyük are visible through houses grouped together and separated from other groups with middens (Hodder and Pels 2010). In each neighborhood, there exists in the center one REB and a number of surrounding buildings of varying elaboration (Düring 2001). The less elaborate buildings do contain paintings, bucrania, and burials, but include them to a lesser extent than the REBs. Hodder and Pels (2010) have proposed that REBs integrated households in a neighborhood, potentially a kin group, and were places where all households in a neighborhood gathered for special events, such as burial. Indeed, REBs tended to be rebuilt more frequently than less-elaborated buildings, and contained more burials than people could have reasonably lived in the house through its lifetime; this suggests they were used for

mortuary purposes for people residing in the neighborhood. Rather than acting as shrines available to and representing the entire community, REBs each represented a smaller and select portion of the site, specifically households within a neighborhood.

REBs provide information about the connections between households and neighborhoods or kin groups, and combined, these groups made up the community at Çatalhöyük. REBs indicate that kinship and neighborhoods were important components of community organization, but little research has examined the changing relationship between households, burials, and community organization during the long occupation of Çatalhöyük.

Changing Domestic Space at Çatalhöyük

Both Hodder (2006) and Mellaart (1964) have described Çatalhöyük houses as typically multi-cellular structures, in very close proximity, with no streets. Houses were entered through holes in the roof, with ladders reaching down into living space. People moved through this settlement by walking on rooftops, using ladders to access houses with higher or lower elevations. When narrow spaces were constructed between buildings, they were used as middens for refuse resulting from rooftop activities. Houses themselves contained one large, central room, which often contained human burials, and a few small side rooms for storage and occasionally food preparation (Figure 4). Walls were formed out of mud brick, then covered in lime plaster and painted. Floors and walls may have been replastered seasonally, but some houses display a correlation between freshly plastered and painted walls and human burials (Hodder 2006). Walls also displayed bucrania installations, formed by making plaster molds out of wild bulls' horns and embedding them in walls or platforms.
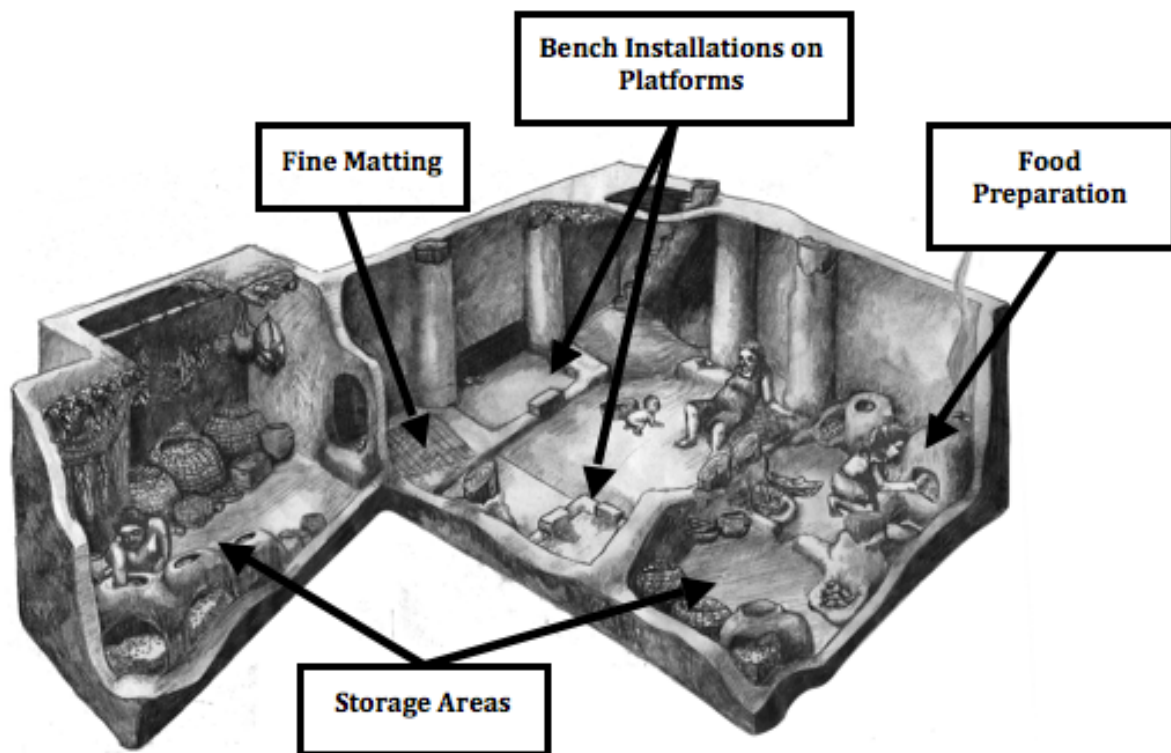
Figure 4: An artist's reconstruction of Building 59 while in use. Note the separation of domestic space (food preparation) and ritual space (installations and matting). *Mesa Schumacher (2009).*

Within the central room, space was differentiated by platforms of differing heights. These platforms appeared to have different grades of plaster, as well as different grades of matting, depending on the activities taking place (Hodder 2006). The northern areas of the house exhibited finer grades of matting and lime plaster on the platforms, a higher occurrence of wall paintings and installations, and more human burials beneath the platforms. This combination of specialized activity and relation to mortuary ritual has caused the northern areas of the room to be termed "ritualized," or were the center for household ritual activity. The southern areas of the house contained the hearth, the floors were of a lower grade plaster and not as "clean," and they

included no installations or wall paintings, indicating the southern area was reserved for domestic activity (Hodder 2006).

Houses at Çatalhöyük, and Neolithic Anatolian architecture in general, tend to remain the same for remarkably long periods of time (Özdoğan 2002). Özdoğan (2002) notes that houses at Aşikli Höyük and Can Hasan III, in addition to Çatalhöyük, maintained nearly identical layouts over time. At Çatalhöyük, new houses imitated the layout of the house they replaced; walls were in the same places, the hearth always remained in the south, usually embedded in the wall (Mellaart 1967), and the ritualized areas were in the north (Hodder 2006). Furthermore, at Çatalhöyük Hodder and Cessford (2004) point out the repetition in timing of floor replasterings, location of the hearth, platforms, and burial locations, and types of plaster used in specific areas. Although house layout was fairly stable, around 6500 BC the location of the hearth shifted from the southern area of the house to the center of the central room, in an area where household members would have to move around it any time they travelled to another area (Hastorf 2012). This signified an important change in the use of household space. During the same period the practice of elaborate wall paintings and installations ceased, suggesting that this type of decoration was no longer considered needed or appropriate for spaces that served domestic purposes.

This shift in the organization of space within houses provides an opportunity to examine broader changes in community organization. The reorganization of the house to focus on domestic activities indicates households were primarily concerned with domestic activity, rather than the multiple functions the house held previously. Hodder (2006) and Marciniak and Czerniak (2007) have assumed the reorganization of household space and other changes at Çatalhöyük are indicative of households becoming more independent. However, their

discussions primarily consist of a list of changes occurring at the site, rather than an analysis of these changes and how they may represent independent households. Because burials were included in the house, it is likely mortuary ritual was also affected by the refocusing of house space on domestic activity. As no previous analysis has looked at changes in human burial ritual at Çatalhöyük in the context of the reorganization of house space, looking at overall changes in rituals between houses is an effective way to relate changes in mortuary ritual to changes in community organization.

Interpreting Funerary Ritual in Domestic Space

Burials reveal a great deal of information about an individual at the personal level. Information about diet, injuries, age at death, and personal wealth or status can all be gathered from human remains. Social differentiation can be identified when certain individuals have access to specialized rituals or elaborate grave goods (Parker Pearson 1999). These individuals may be selected based on gender, age, high status based on achievements or inherited from one's ancestors, or a combination of variables within the community. Yet there is more to be learned in the mortuary record than status of individuals. The Neolithic Near Eastern practice of skull plastering and circulation is one example of certain individuals attaining recognition within their communities, but it is also an important example for the relationship between mortuary rituals and community organization.

The practice of skull plastering involved community members exhuming the skull of a select individual, which was then plastered and painted. The level and focus of decoration on the skull varies geographically. For example, at Jericho significant attention was paid to the eyes,

which were emphasized by embedding cowrie shells in plaster over the eye sockets (Kuijt 2008).

While lime plaster was most commonly used to cover the skull, examples from Tell Aswad

indicate mud plaster was favored, possibly due to the limited availability of lime (Croucher

2012). Archaeologists believe that once the skull was exhumed and prepared, it was displayed or

used in ceremonies among a single household or potentially through the whole community.

Some skulls show many layers of plaster and paint, indicating they were used in a ritual context

for a long period of time before the final phase of reburial, either individually or in a cache with

other skulls (Kuijt 2008).

Price and Bar-Yosef (2010) argue the practice of skull plastering is evidence for elites,

because not all individuals had access to the practice of skull removal, and even less had their

skulls plastered and painted. Certainly, there is evidence for both male and female adolescents

and adults with plastered skulls, and there are caches of infant skulls found at Jericho, indicating

differentiation was not based on age or gender (Croucher 2012). This evidence suggests social

differentiation within Neolithic communities is prominent, but the presence of social

stratification is still debated. Furthermore, selection of individuals for plastered skulls could be

unrelated to status at all, focusing more on individual qualities such as "time of death, […]

individual traits, knowledge, or skills (such as patience, communicative abilities, imagination, or

understanding of the environment), […] or strong emotional ties between members of the

community [and the deceased]," (Croucher 2012: 115).

While individual qualities may have been the determining factor for practicing skull

circulation, the long-term effects of the ritual contributed most to social organization. Though

skull plasterers were very skilled artisans evident by the level of decoration and painting that

went into the process (Croucher 2012), skull plastering does not seem to have been an attempt to

14

recreate the individual's appearance (Bonogofsky via Croucher 2012). Kuijt (2008) argues the

end result of skull plastering and caching was the loss of a specific individual identity while

simultaneously remembering an ancestor. This shift from the individual to the symbolic ancestor

created a "symbolic collective" to which many individuals, potentially the entire community,

belonged.

The "symbolic collective" created through mortuary ritual is potentially more important

when studying community organization than the identification of high status or ranked

individuals. As Parker Pearson (1999:84) states, "concepts of honour and sacredness may be far

more important than wealth and ownership in organizing society's values." Therefore some

communities may be less concerned on accumulating wealth, although accumulation of wealth

may certainly occur, and more concerned on maintaining and contributing to communally

defined rules for either day-to-day life or ritual practice. Mortuary rituals and the community-

designated rules accompanying them can differ from site to site, and it is important to consider a

localized approach when considering the implications of burial practices.

Ritual and Burials at Çatalhöyük

The burials at Çatalhöyük have been studied extensively in an effort to better understand

the organization of the community. While the discovery of elaborate buildings by Mellaart in the

earlier excavations led him to believe the site displayed hierarchy, much of the recent evidence

and re-analysis of Mellaart's data indicates Çatalhöyük had a more egalitarian organization. This

assertion is based on the reevaluation of Mellaart's "shrines," the low frequency of grave goods

in burials at the site, and the lack of elaborate adult burials. A few burials contained what seem to

be personal artifacts, such as a bracelet left on the individual or flint knives, but no burial has been found that includes very elaborate or high quantities of grave goods, which would likely indicate status differentiation and be helpful in discussing social organization. While differences in goods do occur, they are very slight, and it is not adults but children who often have the most artifacts (Hodder 2006). Traditionally, children with wealthy burials have been indicators of inherited status, as a neonate or infant would not have had the time to achieve high status within their own lifetime. However, there are no instances of elaborate adult burials at Çatalhöyük, and other evidence for high status individuals is scarce. Archaeologists argue that children who have proportionally more grave goods attained them through gift-giving by older individuals who maintained a close relationship with the child (Parker Pearson 1999).

Burials at Çatalhöyük have been found most often in houses, beneath the floors, and significantly more burials are found in houses designated as REBs. Andrews and Molleson (1997) examined one REB that clearly contained more individuals than resided in the house. They argued for a potential division of burials across family lines in this building; it appeared different areas were reserved for each child of the couple who first resided in the house, and their families. There are three areas reserved for burial in the building, and Andrews and Molleson (1997) argue each area was used by three brothers' families: the youngest sibling and his family buried under the Northwest platform, and the other two burial areas (North and East) used by two older siblings and their respective families. The evidence supporting this generational model is very strong, but currently is only applicable to this particular building. However, it does support the argument that REBs were representative of kin groups, or at least extended families.

Andrews and Molleson (1997) also acknowledged the importance of location within burials. Although it appeared three families were buried beneath the floors of one building,

almost all of the burials were focused in the North/East areas of the house. This pattern of burials taking place in the Northern area of the house is evident not only in this building, but across the site (Hodder 2006, Mellaart 1967). Furthermore, the existence of burials in nearly all houses, whether Ritually Elaborate or not, indicates a choice not only of location within a building, but a choice of which building was part of the burial process. In addition, skull removal and circulation occasionally occurred at Çatalhöyük, and plastering is displayed on one female individual excavated in 2004 (Boz and Hager 2004). Skull removal was not typical (Hodder and Cessford 2004), but the availability of the practice necessitated the remembrance of the location of the buried individual in order to retrieve their skull later.

The importance of location to households at Çatalhöyük is evident not only in mortuary ritual, but also in other household practices. The organization of the house itself was centered on location; the hearth was always located in the southern area of the house. In addition, tt was common for households to retrieve bucrania or other installations that were embedded in the walls of the house below their own (Hodder and Cessford 2004). An example is the retrieval pit dug by a household in an attempt to retrieve a relief sculpture from the previous building. In this and other similar situations, when retrieving installations, bucrania, or skulls of buried individuals, the retrieval pit was always straight down, indicating the individuals knew the exact location of the target artifact. This is impressive when considering this particular building was decades old, as indicated by its large number of floor replasterings, and not all houses contained installations in the same location (Hodder and Cessford 2004). The practice of remembering locations of individuals and installations in order to retrieve skulls, bury new individuals, or collect the installations, in addition to the clear distinction of ritual and domestic space, indicates

location was vital when practicing rituals in Çatalhöyük and is critical to the understanding of household ideology at the time.

Previous studies of mortuary practice, including Andrews and Molleson's (1997) argument of extended family burial practice and Hodder's (2006) discussion of burial location and grave goods, have identified interesting aspects of community organization at the site. However, there has been limited analysis of how burial practices changed over time and how they related to the changes in domestic architecture and organization of space. In addition, no study has examined household burials in the context of change in the relocation of the hearth within houses. If houses were indeed becoming increasingly independent, it would be reflected in the mortuary record through increased differentiation of mortuary rituals, or each household practicing mortuary rituals that are characteristic of a particular household, after this period of reorganization. Examining mortuary rituals for differences between households is beneficial because even if differences are not apparent, it is often interpreted to mean households were practicing communally determined mortuary rituals. This study aims to examine changes in household burials in relation to this reorganization of the house that took place beginning in Level VI (about 6500 BC) at the site to explore changes in community organization.

Methods

This study will investigate the potential change in burial location during the transition in the use of house space for both domestic and ritual activity to exclusively domestic activity. Exploring how burials changed during this period of housing development will help

contextualize the household changes that took place, and will give insight into developments in community organization.

Model for Analysis

This study examines small-scale changes in the mortuary record, focusing on changes in burial location within the house. The methods were loosely adapted after Kuijt et al.'s (2011) study, which used the mortuary record to examine changes in household autonomy and segmentation between households at Tell Halula, Syria. Burial practices at Tell Halula are similar to Çatalhöyük, which made the comparison of this study to Kuijt et al.'s logical. For example, there is a strong emphasis on burials beneath the floors of houses both at Tell Halula and Çatalhöyük. Additionally, the sequence of housing at Tell Halula is remarkably similar to the pattern seen at Çatalhöyük; houses were built one on top of the other, although not nearly as close together, and new houses were nearly identical in layout to previous houses.

There is a temporal difference between Tell Halula and Çatalhöyük; Tell Halula was primarily a PPNB village, and Kuijt et al's study focused on 7500-7300 BCE, the established transition point at Tell Halula from Middle to Late PPNB, whereas Çatalhöyük was settled in the PPNB, around 7400 BCE, but most of the data available for this study came from the Pottery Neolithic. At Çatalhöyük, the Pottery Neolithic roughly correlates to 6700-6250 BCE, and this study will focus on the previously discussed shift in activities practiced within houses from including ritual to solely practicing domestic activities. The PPNB and Pottery Neolithic are defined by specific social organization and technology, so identical changes are not expected. Instead, this study will use the Kuijt et al. interpretations of community organization represented

in mortuary practices, and similarly will focus on a specific, predetermined period of change at the site.

In the study at Tell Halula, burials within eleven buildings were examined with a focus on three questions: "(1) were people in different households always buried with grave objects, (2) were adults and children buried with different types and number of grave objects, and (3) were adults and children buried in different locations inside of the houses?" (Kuijt et al. 2011: 510). Using these three questions, the study identified very clear changes in mortuary patterns (Figure 5). Specifically, the study found that differentiation in grave goods and location was primarily focused on segregating children and adults in earlier levels, but later, shifted to differentiating between adults in the same and different houses. Earlier burials were always located in the entrance to the house, but later burials show a few exceptions, with two burials located in the far corner of the house, indicating later houses displayed more variability between burial preferences. Kuijt et al. (2011) argues these differences represented larger changes in community organization at the site. Separating children and adults by location within houses in earlier levels indicated organization was at the community level; the focus was on differentiating between individuals of a single household, and within any house the rituals practiced were the same throughout the community. Later houses practiced more variability in mortuary practices; rituals and burial location were consistent within a given house, but differed from neighboring houses. The focus on differentiating between households, rather than individuals of the same household, indicated the community was reorganizing to place households as the primary focus of organization.
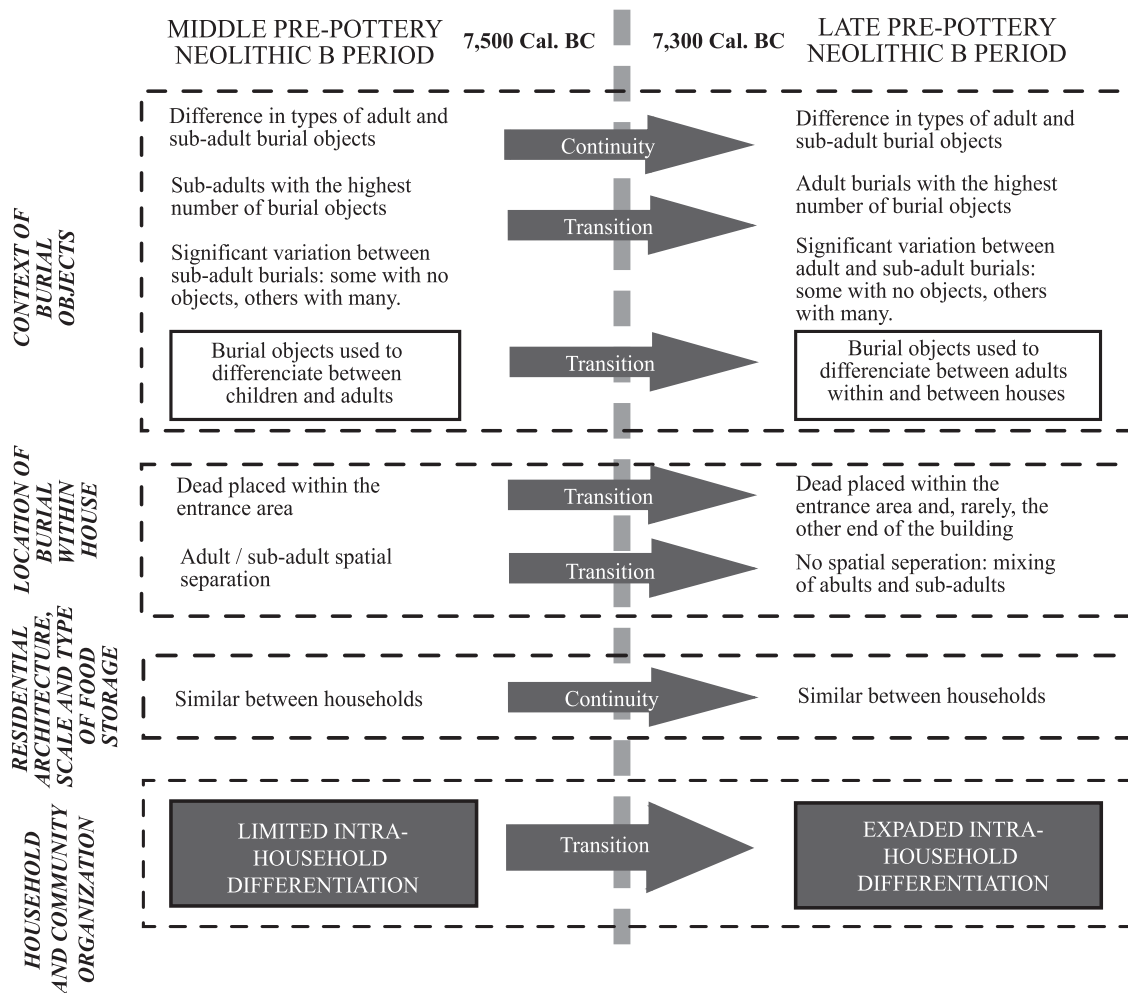
Figure 5: Changes in burial objects, location of burials, and residential architecture and the implications for household and community organization. *After Kuijt et al. (2011 fig. 7)*

Kuijt et al. (2011) used these changes in mortuary ritual and community organization to categorize two periods of social organization exhibited at Tell Halula, which they referred to as Limited and Expanded Intra-Household Differentiation (Figure 6). Limited Intra-Household Differentiation is characterized by community-focused society and a large communal identity, while Expanded Intra-Household Differentiation is characterized by the increase of the importance of the household. Often the community is still the focus of social organization, but households begin to show increased differentiation, and this becomes especially apparent in the

increasingly specialized practices of mortuary ritual within houses. Kuijt et al. (2011) went on to make predictions about what type of organization may develop next at Tell Halula, based on previous research of other villages. Entrenched Intra-Household Differentiation is the expected "next step" after Expanded Intra-Household Differentiation, and is characterized by the entrenching of the importance of the household in social structure. In sum, it is expected for a community to increase the importance of the household in community organization as time passes.
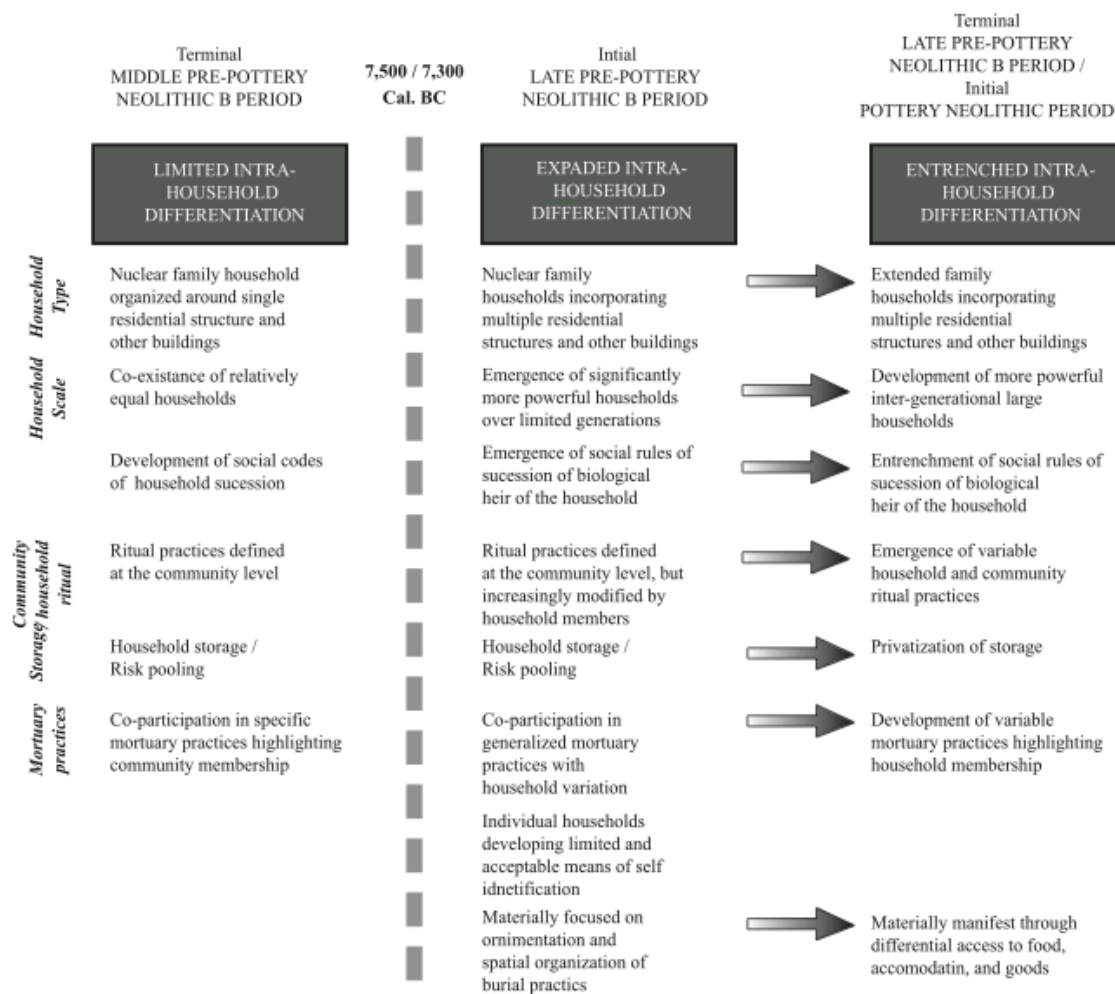
Figure 6: Differences between Limited, Expanded, and Entrenched Intra-Household Differentiation. *After Kuijt et al. (2011 fig. 2)*

The existence of REBs at Çatalhöyük complicated this analysis. REBs clearly indicate a focus on kinship groups in the form of neighborhoods, which Kuijt et al. (2011) did not directly discuss. Although kinship groups are a unique feature of social organization, at Çatalhöyük they represented an extended household; kin groups were clearly focused around one building that potentially the entire neighborhood used for mortuary ritual. Additionally, mortuary rituals were focused on honoring ancestors; individuals belonging to the neighborhood or kin group were often buried in the REB belonging to that neighborhood. In this way, they functioned similarly to skull circulation; while initially, the burial would be focused on remembering the individual, as time passed the REB and all the individuals it contained began to represent the "symbolic collective." Although every neighborhood had an REB, making this mortuary ritual communal, it was practiced by kinship groups. For this reason, it was expected that as time passed, community organization at Çatalhöyük would either display entrenched importance of kinship groups, or individual households (potentially those residing in REBs) would become more independent. Both suggestions would be exhibited by increasing differences in mortuary ritual between households and a more entrenched importance of REBs.

Method of Analysis

Kuijt at al.'s (2011) study examined the presence of grave goods and location, to identify differentiation between or within households at Tell Halula. Because grave goods were rare at Çatalhöyük, this study focuses primarily on the location of burials. Kuijt et al's (2011) study provided a methodological framework for relating burial location to differentiation in and between houses. Thus, this study focuses on a comparison of burial location within houses and

the placement of bodies from different age groups. The specific questions of the analysis of this study are: (1) were people in different households buried in the same relative location within their houses, and (2) were adults and children buried in different locations inside houses. This information is examined to investigate a third question: how were any changes in burial location and distribution of age groups related to the reorganization of space within the house?

Sample Size

The sample size of this study includes 151 burials within 12 houses, primarily from the Northern area of the East mound. For detailed information on burials within each house, and the specific data collected within each house, see Appendix A. The houses were selected based on inclusion of burials and the complete availability of their mortuary data. During excavation, each house was assigned a level of occupation based on the level designations Mellaart created during his 1960s excavations. During the Hodder excavations, it was at times difficult to determine what level the newly excavated houses belonged to because they were spatially separate from the houses Mellaart excavated. For this reason, some houses were assigned two levels when the level to which they belong is not explicitly clear (Table 2). This study focuses on changes occurring in Level VI; for simplicity, periods before Level VI were referred to as "Earlier" and periods after Level VI were referred to as "Later." As evident in Table 1, three houses may belong to either Level VI or V. In this study, they were grouped with houses "Earlier" to ensure the changes occurring during Level VI will have fully developed and be clearly evident in the group "Later."

	House Number	Mellaart Level
Earlier	17	IX
	6	VIII
	1	VII-VI
	49	VII-VI
	77	VI-V
	59	VI-V
	53	VI-V
Later	88	V-IV
	60	V-IV
	45	V-IV
	58	IV-III
	54	IV-III

Table 2: A list of the houses used in this study and their assigned Mellaart Levels. Houses are arranged in date from earliest (IX) to latest (IV-III).

This study will not look at the houses excavated by Mellaart because Mellaart did not identify many juvenile or infant remains; Mellaart found almost exclusively adult and adolescent burials, but the Hodder excavations have excavated a large number of not only adult and adolescent remains, but also juvenile, infant, and neonate remains (Hamilton 1999). It is thought this difference in proportion is not due to changes in houses, since both teams excavated similar levels, but more rigorous excavation methods in recent years; Mellaart did not have adequate methodology or equipment to acquire the incredibly small neonate bones, and so, they were not reported. This study focuses on changes in overall burial area within the house, and a lack of a substantial portion of the mortuary data could create a large margin of error. Therefore, this study uses only houses excavated by the Hodder teams.

Burials are largely referred to by their location within the house (Figure 7). The house is divided into North, Central, and South areas, designated respectively with dark grey, light grey, and white shading. The three general areas are then subdivided into three sections each: West, Central, and East, indicated by the lines and labels. Data on these houses and their burial records

were gathered from the archive reports from the 1995-2011 seasons, and the database available at the website documenting Çatalhöyük's excavation. The archive reports served as the primary source of data, and the database was only used at times to clarify unclear information in the reports.

Doorway to Storage Room →

Side/Storage Room:

Northwest	North	Northeast
West	Central	East
Southwest	South	Southeast

Central Room:

Northwest	North	Northeast
West	Central	East
Southwest	South	Southeast
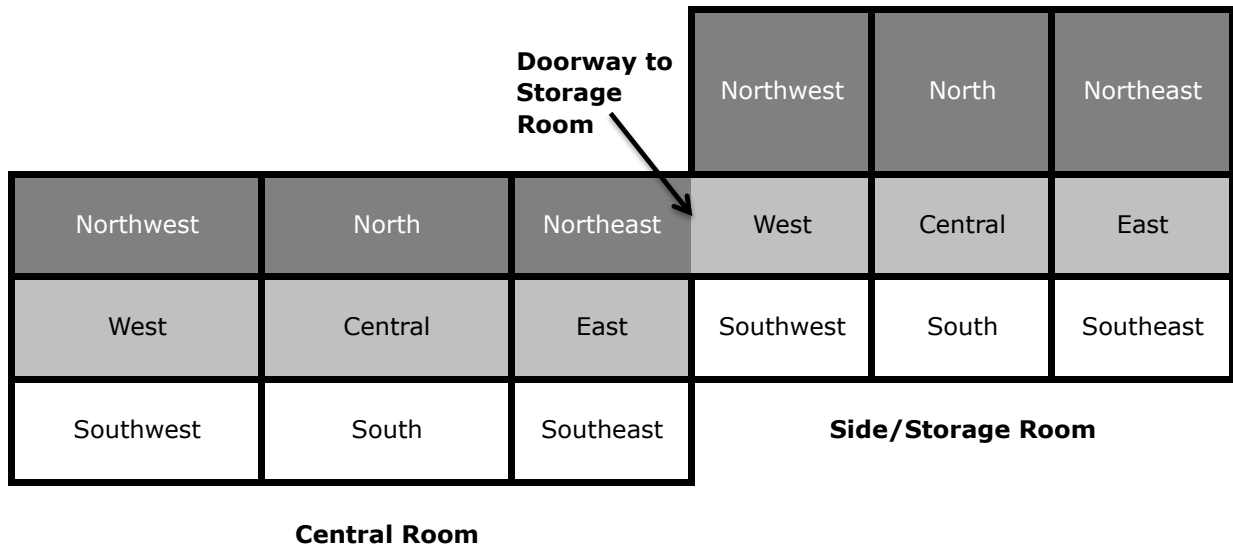
Figure 7: Labeled areas of the house.

Burials: Which will be included?

The burials within these buildings are often disturbed from the multiple internments and skull recovery practiced, and what constitutes a burial can be difficult to ascertain. Most burials are primary, or the first placement of a fully articulated individual, but some may be secondary, meaning at some point after burial the body or parts of the body were intentionally exhumed and reburied or treated in an alternate location. Many skeletons are clearly disturbed, and some burials contain only crania while others contain individuals with their skull removed or the body in its entirety. Burials are also generally located under the floors, but sometimes are deposited in the fill of old buildings, and neonates are occasionally found as foundation burials, or burials

located within the foundation of the house, in a potentially ritual context. For this reason, a discussion of what constitutes a burial in the context of this study is necessary.

Primary and secondary burials both occur at Çatalhöyük, although the vast majority of burials were primary. It can be difficult to distinguish between a primary and secondary burial in buildings where the burial frequency is very high. There are some instances where the burial was clearly secondary, such as disarticulated remains spread throughout the fill of a house. However, when burial platforms were used multiple times over a long period, burials beneath platforms were disturbed by later burials and their status as primary or secondary can be indistinct. Should an individual be placed secondarily beneath the house, it still implies they had a connection to the house and were deliberately interred in this location. For this reason, both primary and secondary burials are included in the data.

Fill burials occur when a house was in the process of being demolished. The walls of the house were partially dismantled, the remainder was filled with clean dirt, and a new house founded and constructed over the previous. Fill burials can be intentional, which usually indicates the individual had died during the process of house dismantling, and before the construction process began. Occasionally, the evidence is less clear. Disarticulated partial remains found in fill can either be the remains of an intentional burial, or may have been unintentionally disturbed by later burials or forces of nature. In this study, fill burials are included when the excavation team indicated it was an intentional burial. They are associated with the area and house being filled.

Foundation burials can be more complex. They can occur when a house is early in the construction process and an individual dies, much like the cause of a fill burial. However, there is a potential ritual implication when discussing foundation burials of neonates. Many

27

archaeologists view neonate foundation burials as "advantageous deaths." "Advantageous deaths" are deaths that occurred naturally, but provided an opportunity for unique or specialized rituals, and may indicate an unknown mortuary ritual and significance (Moses 2008). However, Moses (2008: 50) argues that these burials may not be the result of "advantageous deaths," but could be sacrificial rituals as an "active method by which individuals and communities sought to incite supernatural action or to generate reciprocal obligations from the supernatural world." Her argument is purely theoretical, and no evidence for neonate foundation burials being sacrificial has been found. Moses (2004) herself notes Çatalhöyük has a very high infant mortality rate. This gives credence to the idea that these neonate burials are advantageous deaths, and it is unlikely a population with a high infant mortality rate would sacrifice otherwise healthy neonates. Furthermore, most foundation burials appear to be regular burials, indicated by their orientation and occasionally the inclusion of grave goods (Hamilton 2005). A convincing argument has not yet been made that determines these burials embody a ritual symbolizing anything different from the standard mortuary rituals practiced throughout the house. Therefore, for the purposes of this study, foundation burials are included in the data and associated with the house and area being founded.

Part of this research examines the separation of adults and children in the mortuary record. The human remains team at Çatalhöyük designated individuals into one of five categories: Neonate, Infant, Juvenile, Adolescent, and Adult. In order to be able to see separation of adults and children in the mortuary record, this study must address what categories will be considered children and what constitutes an adult. The age at which a child is considered an adult is variable from community to community, and it can be very difficult to determine what age groups or individuals were considered adults through the archaeological record. In response to

this difficulty, Kuijt et al. (2011) created two subgroups, "Adults" and "Sub-Adults", where Adults included any individual over the age of 16. This categorization most closely corresponds with the categorization of Adolescents and Adults at Çatalhöyük. Therefore in this study, "Adults" refers to the individuals designated Adult and Adolescent by the excavators, and "Sub-Adults" refers to the Juvenile, Infant, and Neonate groups.

Analysis

This study had two goals: the first to examine, compare, and analyze the location of house burials before, during, and after hearths moved to the central room in Level VI, paying attention to wide-scale changes in mortuary practice. This goal was approached through the discussion of the three research questions noted earlier: (1) were people in different households buried in the same relative location within their houses, and (2) were adults and children buried in different locations inside houses, examined using (3) how did these factors correlate with the space reorganization within the house? The second goal was to relate these changes in burials to other changes taking place in the community, such as in architecture and material culture, which have been recognized in previous research. The multifaceted approach of this study provided a more comprehensive understanding of mortuary practice that did not muddle evidence for change over time.

Changes in House Burials

The first question of this study is, were people in different houses buried in the same relative location within their houses? This was examined in two ways; first, which rooms within a house were burials located, and second, where within a room were burials located. For complete information on burial location within each house, see Appendix B. Room choice varied significantly between Earlier and Later; Earlier burials almost exclusively took place within the central room of the house. While all of the seven Earlier buildings contained side rooms, only two buildings (59 and 53) included burials in their side rooms. The dating for both of these houses is uncertain; they are currently attributed to either Level VI or early in Level V. Building 53 only contained one burial in the central room, indicating this building could represent the initial transitions to side room burials. Building 59 only contained one burial at all, so a pattern could not be inferred. The location of Later burials focused on the side rooms (Table 3), with a highly significant shift in location of burials from the central to side rooms between Earlier and Later periods (arcsin transformation $t_s = 8.28$, $p = 0$).

Level	Central Room	Central Room %	Side Room	Side Room %
IX	7	5.9%	0	0.0%
VIII	10	8.5%	0	0.0%
VII-VI	77	65.3%	0	0.0%
VI-V	13	11.0%	6	18.2%
V-IV	8	6.8%	11	33.3%
IV-III	3	2.5%	16	48.5%
Total Earlier	**107**	**95%**	**6**	**5%**
Total Later	**11**	**29%**	**27**	**71%**

Table 3: Comparison of Burials in Central and Side Rooms between Earlier and Later Periods.

Within each room, the Earlier location of burials confirmed burials most commonly took place in the northern areas of the house, as previously noted by Hodder and Mellaart (Table 4). However, when looking at Later burials, there was much more variation, with burials being more distributed throughout the house (Table 5). A chi-square analysis was performed on this data to determine whether or not the apparent shift in location choice was statistically significant. The test showed the difference between Early and Late periods with respect to proportions of burials included in the North, Central, and East areas of the house was statistically significant ($\chi^2 = 8.78$, df = 2, .02 < p < .01). With 98-99% confidence, the displayed shift in burials from focusing in the North area of the house Earlier to being more equally distributed Later was not due to random chance.

Burials in Area of House: Before Level VI

Area of House	Specific Location	# Burials	% Burials By Area
North	NW	35	
	NE	16	65
	N	22	
Central	W	5	
	E	19	27
	C	7	
South	SW	6	
	SE	2	8
	S	1	

Table 4: Distribution of Burials in Earlier Periods.

Burials in Area of House: After Level VI

Area of House	Specific Location	# Burials	% Burials By Area
North	NW	5	42
	NE	11	
	N	0	
Central	W	2	34
	E	9	
	C	2	
South	SW	2	24
	SE	0	
	S	7	

Table 5: Distribution of Burials in Later Periods.

The second question in this study is were adults and children buried in different locations inside houses? The data were much less clear. During the examination of the data grouping together Earlier houses, it appeared Sub-Adults and Adults were not separated by burial locations (Table 6). However when the data were examined more closely, the two earliest houses (17 and 6) very clearly separated Adults and Sub-Adults, as did the latest building (53) (Table 7). As discussed above, Building 53 contained burials within side rooms, rather than the more common central room. If this was the only one of the Earlier buildings that separated Adults and Sub-Adults, it could be argued it represents one of the earliest houses to begin exhibiting changes in the mortuary record. However, Buildings 17 and 6 also separated Adults and Sub-Adults, and for this reason it appeared individual households chose whether or not to separate Adults and Sub-Adults in the periods before Level VI. This indicated some variation existed between households even in Earlier periods.

Burial Location of Adults and Sub-Adults: Before VI

Area	Sub-Adult	Adult
NW	23	12
NE	10	6
N	13	9
SW	5	1
SE	2	0
S	0	1
C	2	5
E	6	13
W	4	1

Table 6: Comparison of Adult and Sub-Adult Burials in Areas of the House.

	Building 17		Building 6		Building 53	
Area	Sub-Adults	Adults	Sub-Adults	Adults	Sub-Adults	Adults
NW	0	0	0	1	0	0
NE	1	0	3	0	0	0
N	0	1	0	0	1	0
SW	0	1	2	0	0	0
SE	1	0	1	0	0	0
S	0	1	0	0	0	0
C	0	0	1	1	0	1
E	2	0	0	1	0	0
W	0	0	0	0	4	0

Table 7: Separation of Adults and Sub-Adults in Buildings 17, 6, and 53.

The data after Level VI in regards to Adult/Sub-Adult separation was also unclear. Only two of the five buildings contained adult burials at all, Buildings 60 and 54. Building 60 could likely date to early Level V, and displayed all the traits of earlier buildings; all its burials were in the central room, and Adults and Sub-Adults were placed together in burials (Table 8). Building 54 separated Adults and Sub-Adults. Because only two houses contained Adult burials, it was not possible to make a determination about the separation of Adults and Sub-Adults within houses. However, the more interesting trend that appeared during the examination of Adults and Sub-Adults in Later periods was the lack of inclusion of Adults in house burials at all. In the

Earlier periods, every house contained Adult burials. Later, as stated, only two houses included Adults, one of which (Building 60) clearly displayed mortuary rituals of Earlier levels. The other, Building 54, included burials of three adults in a very small side room completely separate from the two other rooms. Consequently, the percentage of house burials categorized as Sub-Adult was much higher than when compared to Earlier levels (Table 9). A chi-square analysis was also performed on these data, and the results showed the difference between Earlier and Later periods with respect to proportions of Adult and Sub-Adults burials was very significant ($\chi^2 = 5.59$, df = 1 .02 < p < .01). With 98-99% confidence, the pattern of removal or reduction of Adult burials within the house was not due to random chance. These data showed Adults and Sub-Adults were separated in that Adults were most commonly no longer buried in houses at all.

	Building 60		Building 54	
Area	*Sub-Adults*	*Adults*	*Sub-Adults*	*Adults*
NW	0	1	0	0
NE	4	3	0	3
E	0	0	6	0
W	0	0	2	0

Table 8: Separation of Adults and Sub-Adults in Buildings 60, and 54.

	Level	*Sub-Adults*	*Sub-Adults %*	*Adults*	*Adults %*
Before VI	IX	4	57	3	43
	VIII	7	70	3	30
	VII-VI	44	57	33	43
	VI-V	10	53	9	47
After VI	V-IV	14	74	5	26
	IV-III	16	84	3	16

Total Before VI		**65**	**58%**	**48**	**42%**
Total After VI		**30**	**79%**	**8**	**21%**

Table 9: Comparison of Adult Burials between Earlier and Later Periods.

Interpretations of Data

Very clear statistically significant changes took place in the choice of burial location, both within houses and within rooms. Previous research often took an overarching view of mortuary patterns at the site, which masked the nuanced but clear changes that took place during Level VI. The data from this study strongly suggested a major change in mortuary ritual occurred during Level VI and was evident in the periods following. However, the interpretations of these changes appeared somewhat contradicting.

The disappearance of a distinct location for burials after Level VI indicated there was significant variability in mortuary practice between houses. Increased variability sometimes indicates households are practicing variations of community-defined practices. The removal of a specific burial location within the house could certainly indicate variability in the practice of mortuary ritual between households, when examined independently. However, the other changes that took place indicate emphasis on individual household practices decreased.

The reduced focus of burials in the central room correlated to the changing use of the central room for primarily domestic activity. Before level VI, the central room of the house was important for mortuary ritual, and this expression of mortuary ritual within the house rather than in the community emphasized the importance of the household. This ritual was displaced when the hearth moved to the center of the central room, and burials generally took place in side rooms. The reduced frequency of burials in central rooms indicated the central room was no longer the focus of funerary rituals. It seemed mortuary ritual became less of a focus on highlighting household membership via in-house burials.

Additionally, the entrance to the home was in the ceiling, but led into the central room and faced the Northern areas of the home, and thus, the burial area (Hodder 2006). Kuijt et al. (2011) found in later periods at Tell Halula, burials occasionally occurred in the far corners of the house, rather than always occurring near the entrance as in earlier periods. They attributed this pattern to differentiation of mortuary ritual between households, as the change in location only occurred in a few examples. That designation did not work within the context of the change in location at Çatalhöyük; most households placed burials in side rooms, indicating this was a change in communal ritual rather than a variation of communal ritual at the household level.

Individual households often chose whether or not to separate Adults and Sub-Adults in the Earlier periods, indicating household specialization of community mortuary practices; throughout the community, both Adults and Sub-Adults were buried within the home, but the separation of Adults and Sub-Adults was chosen by each individual household. This indicated variability between households in the mortuary record in Earlier periods. Later, Adults and Sub-Adults were very clearly separated, as Adult burials were in general no longer kept inside the house. In the case of Building 60 containing Adult burials, it seems the household was continuing earlier practices of mortuary treatment. Not much is known about Building 54, as much of the walls and part of the floor had eroded away, so it is unclear why the household continued burying Adults within the house. However, the Adult burials were in a separate room from Sub-Adult burials, indicating there was a high priority in separating Adults and Sub-Adults even in Building 54.

The removal of most Adult burials from the home strongly suggests an alternative form of mortuary treatment from house burials, either off-site treatment or increased use of REBs. Unfortunately, this study had no REBs in the later periods, and there is currently no evidence for

off-site treatment. However, the available evidence suggests that wherever Adult burials were taking place, the ritual was focused on communal identity. Burials that remained in the house were typically Sub Adults, and as mentioned above, generally shifted to the side rooms. The exclusion of Adults but inclusion of Sub-Adults in house burial could be a reflection of increased emphasis on community. If Sub-Adults had not been properly initiated into the community, or had not lived to the age at which one was considered fully integrated into the community, they would not be associated with the community as a whole post-mortem. Therefore, their burial in the storage rooms of houses emphasized their lack of status acquired as a community member.

Most of the evidence, therefore, indicated a decrease in household mortuary ritual and increase in community importance over the household. This is contrary to the expectations set up by this study, which predicted the community at Çatalhöyük would entrench the importance of households and kinship groups over time. Further excavation at Çatalhöyük will surely clarify some of the issues brought up in this study; the evidence in this study will be supplemented if burials are found outside of the site with evidence of communal ritual, but the expectation of more entrenched importance of kinship groups may be confirmed if Later period REBs are found to maintain their neighborhood exclusivity while housing higher proportions of Adult burials and relative lack of Neonates/Infant burials.

Without evidence of community ritual or increased power of REBs and kinship groups in Later periods, the community organization of Çatalhöyük cannot be inferred with certainty. However, it is clear that changes occurred at the site during Level VI and were evident in the periods following. Social organization is inferred from the archaeological record through many platforms, including but not limited to mortuary ritual. In this case, it was not enough to make a claim based solely on the mortuary record; at a site that is so large, it is unlikely to make a

conclusion about the organization of a site based only on a single form of evidence. To begin to discuss the organization of a community, a holistic approach is necessary. The rest of this study explored summaries of previous research alluding to other changes taking place in architecture, figurines, ceramics, and lithics, all of which occurred during or near the changes in mortuary practice outlined above.

Architecture

As discussed previously, Earlier houses at Çatalhöyük were built one on top of another, with identical floor plans extending from the old house to the new, and the hearth or oven was built against or into the southern wall. Walls were plastered and painted frequently, and all houses have sequences with and without painted decoration. The paintings varied greatly in design, ranging from scenes depicting birds and hunting scenes to relatively simple geometric patterns. Some walls merely had a coat of red paint over the lime plaster, and some layers had no paint at all (Mellaart 1967). Wall replastering and painting may have occurred seasonally, and is indicative of domestic practice. However in some houses, it appears the more elaborate layers of plaster were painted at the same time of a burial in the house (Hodder 2006), indicating they may have had a ritual importance for the household.

Beginning in Level VI, Düring (2001) observed the continuity between buildings was lost; he noted only 23% of buildings existing in Level V had existed in Level VI. Houses were also spaced farther apart, no longer congregated in clearly identifiable neighborhoods, and in some cases exterior doors and streets were added. Düring (2001) concluded people at Çatalhöyük are beginning to break away from the importance of the past, putting less emphasis on ancestry.

REBs were no longer located in the center of closely huddled neighborhoods, but in the open and more accessible to the entire community (Düring 2001). Beginning slightly earlier, toward the end of Level VII, the hearth moved toward the center of the room (Hastorf 2012). As time passed and activities within the house began to exclusively focus on the domestic sphere, wall plastering and painting decreased in frequency. Hodder (2006) interprets these concurrent changes as supporting the argument that painting was a ritual act or had ritualistic tendencies, rather than being purely domestic. Before the practice was abandoned, wall paintings shifted in composition to include more depictions of communal hunting scenes (Mellaart 1967). By the time the hearth was primarily focused in the center of the central room, burials, wall paintings, and evidence of ritual within the house had been nearly eliminated.

The refocusing of the house on domestic activity indicated a decreased importance of mortuary ritual within the house. Household mortuary ritual was highly ancestral; it focused on ancestor veneration and the remembrance of the past. This reorganization, combined with the decreased continuity of houses, indicates the past was becoming less important to households. The increased space between houses, rather than conglomerating together in clearly defined neighborhoods or kin groups, also indicated a decreased emphasis on kin groups. Furthermore, the increased accessibility of REBs reflects kinship groups were no longer closed off, and REBs may have begun to serve and represent the entire community. This could indicate increased household independence, but the removal of wall paintings and elaborate decorations from houses in later periods indicates little differentiation between houses. Finally, the increased depiction of communal hunting scenes enforced the suggestion that communal identity increased. The lack of differentiation between households, the apparent decreased importance on

neighborhood kinship groups, and the imagery of communal events found in wall paintings

indicated communal identity was becoming the focus of social organization.

Figurines

The figurine assemblage at Çatalhöyük is abundant since figurines were "ultimately

disposable"; rather than being treasured and circulated, they were often created and disposed of

quickly (Nakamura and Meskell 2009:206). Figurines are found in a multitude of contexts,

including middens, house deposits, and the infill of houses and ovens, but have not been found in

burials (Hodder 2006). Although figurines were not included in burials, they did have a clear

ritual significance. There was a common practice of "de-heading" figurines; anthropomorphic

figurines are found with intentionally detached heads, and some figurine heads were constructed

to be removable and interchangeable (Meskell 2008). One figurine depicts a large, breasted

woman, but her entire back was formed so it appears to be skeletonized (Nakamura and Meskell

2009). This strange depiction may be a representation of the natural decomposition process,

something individuals at Çatalhöyük must have been intimately familiar with due to their

constant disruptions of burials during new burial ritual or skull circulation. The largest number of

figurines are found in REBs, and there exists a wide variation in typology and material. Human,

humanoid, and animal figurines are all common, and while most were formed from low-fired

clay, some were formed from stone (Hamilton 1999).

Hamilton's (2006) analysis of different figurine types and their high concentrations in

REBs led to the conclusion production was on a household/lineage/clan basis and "involved

specific, rather than site wide, imagery possibly referring to ancestors or totems." In the same

and in an earlier study, Hamilton (1995, 2006) noted the growing emphasis on the "fat-female" figurine and a loss of other imagery beginning in Level VI. Hamilton argues this change is probably not indicative of a religion, or that the "fat-female" is representative of a goddess, but the movement toward one figurine icon may be due to social and economic changes. Meskell et al. (2008) disagree with Hamilton's interpretations, noting the shift in figurine makeup is interesting, but by itself is not indicative of a shift in ideology. This is currently the only concern with Hamilton's study, and the analysis of burials and architecture above provides further evidence for a shift in social change, specifically in community organization, giving credence to Hamilton's interpretations. The change to one figurine type from a multitude of icons, potentially representing individual households or kinship groups, certainly could be indicative of the adoption of a community wide identity and reinforces the argument that community was becoming the focus of social organization at Catalhoyuk.

Lithics

The stone tool assemblage at Çatalhöyük is widely varied both in material and in technique. Stone tools were made both inside and outside the house, and were usually formed from obsidian and flint, but basalt and quartz tools are also found at the site. While many tool types are identified at the site, before Level VI, stone tools were primarily flake tools that display a wide variety of knapping techniques (Conolly 1999). There was no structured, uniform approach to flaking tools, indicating many people with many different techniques made stone tools, most likely for their own use.

After Level VI, prismatic blades increase from less than 10% of the lithics assemblage to taking up over 50% (Conolly 1999). Prismatic blades, according to Conolly (1999), require skill and practice to perfect, which implies only some people were able to make these tools. Conolly (1999) argues the increase in prismatic blades is indicative of a technology change leading to increased specialization of stone tools, created by certain households or individuals that were able to shape better blades than others. Interestingly, blades and blade cores are found slightly more often in Ritually Elaborate Buildings (Conolly 1999). While they have not yet been established as centers of production, this evidence does suggest REBs had increased access to the new lithic technology. The differential access to goods is one attribute of Entrenched Intra-Household Differentiation; it indicates certain households or kin groups are becoming more powerful than others.

However, more recent research in lithic production has found some stone tools, including prismatic blades, may not require as much specialization and skill as previously thought. When utilizing pressure blade production, it is actually very simple to achieve uniform prismatic blades, and the means to do so may be easily transferred from one individual to another (Pelegrin 2012). The lithics assemblage at Çatalhöyük has not been adequately analyzed to determine whether or not individuals used the most efficient forms of pressure blade production, although preliminary observation indicates it is very possible (Altınbilek-Algül et al. 2012). Therefore, future research may show the lithics assemblage is not, in actuality, indicative of social differentiation.

Pottery

Pottery also went through a change in technology beginning in Level VII and lasting through the transition of the population from East to West Mound. Beginning in Level VII, pottery was fired in a more controlled environment, had thinner walls, and was composed of a better mineral temper. Last (2005) argues this new clay type improved cooking, and Hodder (2006) believes thinner pottery led to a more even heating of the pot and its contents, and meant individuals did not have to monitor the cooking process as rigidly and were free to complete other tasks. It's likely a better clay source led to most of these improvements (Last 2005). The location of the clay source is unclear, but based on mineral composition, it appears to have been located away from the site (Last 2005). Manufacturing clearly took place at Çatalhöyük; minerals that were unique to the site were found in pottery, indicating the minerals had been worked into the clay before firing (Last 2005). This means clay had to have been imported or individuals had to travel relatively far to harvest the clay, rather than the pottery itself being imported. The difficulties in accessing an improved clay source may argue for differential access to materials. It is unlikely, but not impossible, that every household would have the time or ability to travel far distances to harvest clay. This would lead to certain households being responsible for retrieving and distributing clay or making and distributing pottery. However, it appears regularly travelling relatively far distances was not unusual for individuals at Çatalhöyük. Hodder (2006) notes at least some farms were located far from the site. Therefore while the clay source may have been far away, this is not enough evidence to state the new pottery technology created specialization of tasks.

Improved firing conditions also allowed for pottery to be painted, and pottery began to display incised decorations as well. The first example of painted pottery is found in Level VI, and incised decorations begin and drastically increase in Level V (Last 1996). The earliest example for painted pottery was found in a REB in level VI, but a more in-depth analysis of different pottery decorations and varieties may give more insight into the importance of pottery decoration to community organization. Verhoeven (2002) discusses the importance of pottery to maintaining communal identity when the design was standardized, or uniform throughout the site. If decorations were varied between REBs but relatively similar to their surrounding houses, as figurine type seems to have been prior to level VI, or if each house developed its own design, it would be indicative of households or kinship groups establishing unique identifiers through specialized design. This represents households or kinship groups differentiating themselves from the larger community, and indicate a more entrenched importance of households. Conversely, if decorations were relatively similar throughout the site, it would represent a more unified identity throughout the community.

Summary of Changes

Çatalhöyük certainly exhibited qualities associated with what Kuijt calls Expanded Intra-Household differentiation in its earlier periods (Figure 8). Rituals were determined by the community but varied at the household level; there was a clear preference of North areas of the house for burial, but each household differentiated itself from others by choosing whether or not to separate Adults and Sub-Adults. This association with practices attributed to Expanded Intra-

Household Differentiation strengthened the assumption this organization would become more

entrenched through time, but as discussed this was not the case.

Characteristics of Expanded Intra-Household Differentiation		Examples at Çatalhöyük: Before VI
Household Type	Nuclear family households incorporating multiple residential structures and other buildings	Ritually Elaborate Buildings may have incorporated the REB and surrounding buildings into a kinship network
Household Scale	Emergence of significantly more powerful households over limited generations	REBs may represent kin groups, indicating they were the most powerful in their kin group
	Emergence of social rules of succession of biological heir of the household	-
Community storage / household ritual	Ritual practices defined at the community level, but increasingly modified by household members	Figurines in the early levels were created on a household/kinship basis, but were found throughout the site
	Household storage / Risk pooling	All houses had storage rooms or areas in both periods, but it is unclear whether these resources were shared in certain situation
Mortuary practices	Co-participation in generalized mortuary practices with household variation	Burials were focused in the north area of the house, but separation of adults and children was decided by individual households
	Individual households developing limited and acceptable means of self identification	Wall paintings varied between houses, and figurine styles may have correlated with individual households
	Materially focused on ornamentation and spatial organization of burial practices	Burial practices were clearly focused in the North area of the house

Figure 8: Çatalhöyük and Expanded Intra-Household Differentiation in Earlier Periods. *Structure used after Kuijt et al. to (2011 fig. 7)*

After Level VI, it is difficult to make a conclusion about the social organization of Çatalhöyük, but it appears the site became more communally focused. While there was potential differential access to pottery and lithics and some variation in location choice for burial between households, which seem to suggest the household became the focus of social organization, this evidence may likely be overturned in future research. The strongest evidence, that of mortuary ritual and architecture, suggested focus was on community membership (Figure 9). Burial was moved to side rooms, and adults were no longer being buried in households; this indicates mortuary ritual was not focused on household membership, and in these regards there was little differentiation in mortuary ritual between houses. In addition, only one REB was available for this study (Building 1), and it was in the Earlier period. The later function of REBs is also critical to interpretations of community organization. While it seems REBs began to serve the entire community, and could be indicative of more powerful households, as time passed there was no differentiation between houses in the form of wall paintings and decoration. A more in-depth analysis of the function of REBs will aid in determining whether these buildings were representative of more powerful households, or whether the transition to serving the community instead of a neighborhood was simply the initial transition to a more communally focused society. With other evidence discussed in this study, including mortuary ritual and figurine typology, it seems the latter is more likely. More research is certainly necessary to clarify these findings, but it is clear the changes in social organization are not as simple as households becoming more independent.

	Characteristics of Limited Intra-Household Differentiation	Examples at Çatalhöyük: After VI	Characteristics of Entrenched Intra-Household Differentiation
Household Type	Nuclear family household organized around a single residential structure and other buildings	-	Extended family households incorporating multiple residential structures and other buildings
Household Scale	Co-existence of relatively equal households	REBs may have begun to serve the larger community, rather than specific households	Development of more powerful inter-generational large households
	Development of social codes of household succession	-	Entrenchment of social rules of succession of biological heir of the household
Community storage / household ritual	Ritual practices defined at the community level	Figurine typology shifted to one uniform figure, instead of being produced at the household level, and walls were no longer painted	Emergence of variable household and community ritual practices
	Household storage / Risk pooling	All houses had storage rooms or areas in both periods, but it is unclear whether these resources were shared in time of crisis	Privatization of storage
Mortuary practices / Technology	Co-participation in specific mortuary practices highlighting community membership	Adult burials were not included in the house, but Sub-Adults were, possibly due to lack of integration into the community	Development of variable mortuary practices highlighting household membership
		Lithic and ceramic production includes evidence for differential access to technology, but may be overturned with future research	Materially manifest through differential access to food, accommodation, and goods

Figure 9: Social organization of later periods at Çatalhöyük. Solid arrows indicate strong evidence, while empty arrows indicate weak or not fully understood evidence. *Structure used after Kuijt et al. to (2011 fig. 7)*

Conclusion

Change over time has largely been ignored when studying Çatalhöyük, and the clear changes that occurred during Level VI are only now precisely characterized. Much of the previous research in lithics, pottery, figurines, architecture, or burials attempted to take an overarching view of the site, which resulted in a lack of patterning and no conclusive interpretations. Additionally, previous research very rarely took all pieces of evidence into consideration before drawing conclusions, and as is evident in this analysis, much of the evidence toward understanding social organization at Çatalhöyük is contradictory. Archaeology is inherently limited by the amount of a site that can reasonably and responsibly be excavated, and for this reason, it is important to utilize all the information available when considering broad questions about how a community was organized. Unfortunately this study could not make any definite conclusions about social organization after Level VI, but it has challenged the previous conception that communities were organized solely around independent households. The later function of Ritually Elaborate Buildings and evidence for mortuary ritual in later periods is critical to understanding the changes that took place.

It is very likely that further research on the West Mound will provide more evidence on the effects of changing community organization at Çatalhöyük. The population at Çatalhöyük began shifting to the West Mound around 6000 BCE. The West Mound is very different from the early levels of the East Mound, characterized by elaborately decorated pottery, lack of wall paintings and burials, primarily mud-brick floors and walls not covered by plaster, fewer layers of plaster on walls when present, and possibly more complex houses with many adjoining rooms (Hodder 2006, Mellaart 1964, Gibson et al. 2000). The motivation for this change of location is

48

unclear, and while many studies have focused on the West Mound, they are primarily concerned with dating, rather than culture. This is partially due to the focus of excavations on the East Mound, and a relative ignorance of the West. Understanding the transition to the West Mound, which will display the long-term effects of the developments beginning in East Mound Level VI, will aid in clarifying the suggestions of developing community organization at Catalhoyuk brought up in this study.

This study suggested Çatalhöyük did not follow the common change in community organization by entrenching the importance of households or kin groups, but relied on community ritual and emphasized group identity during the later time periods. In doing so, this study brought to light the complexities presented when examining community organization and the mortuary record, applicable specifically at Çatalhöyük, but applicable to other sites in Anatolia and the Near East. While broad generalizations of changing community organization are helpful when understanding the Neolithic Demographic Transition, this study serves as a reminder that some communities do not fit into these models, and localized studies are continuously important to modify and adapt such models to become more suitable. This study has also emphasized the importance of taking a holistic view of sites, rather than relying on select evidence for interpretations. Using this model of examining multiple platforms of evidence at each site, rather than solely mortuary evidence, architecture, or technology, will aid in understanding broad and localized changes in social organization of Neolithic communities.

References Cited

Altınbilek-Algül, Ciler, Laurence Astruc, Didier Binder, and Jacques Pelegrin
    2012 Pressure Blade Production with a Lever in the Early and Late Neolithic Near East. In *The Emergence of Pressure Blade Making: From Origin to Modern Experimentation*, edited by Pierre M. Desrosiers, pp. 157-179. Springer US.

Andrews, Peter and Theya Molleson
    1997 The human remains. *In* Çatalhöyük 1997 Archive Record. http://www.catalhoyuk.com/archive_reports/1997/ar97_12.html

Banning, E. B.
    2003 Housing Neolithic Farmers. *Near Eastern Archaeology* 66(1/2):4-21.

Bellwood, Peter, and Marc Oxenham
    2008 The Expansions of Farming Societies and the Role of the Neolithic Demographic Transition. In *The Neolithic Demographic Transition and its Consequences,* edited by Jean-Pierre Bocquet-Appel and Ofer Bar-Yosef, pp. 13-34. Springer Verlag.

Boz, Başak and Lori Hager
    2004 "Human Remains." In *Çatalhöyük 2004 Archive Report.* http://www.catalhoyuk.com/archive_reports/2004/ar04_18.html

Cauvin, Jacques
    1977 Les Fouilles de Mureybet (1971-1974) et leur signification pour les origins de la sedentarisation au Proche-Orient. *The Annual of the American Schools of Oriental Research* 44:19-48.

Conolly, James
    1999 Technical strategies and technical change at Neolithic Çatalhöyük, Turkey. *Antiquity* 73(282): 791-800.

Croucher, Karina
    2012 Death and Dying in the Neolithic Near East. Oxford University Press.

Drennan, Robert D. and Christian E. Peterson
    2008 Centralized Communities, Population, and Social Complexity After Sedentarization. In *The Neolithic Demographic Transition and its Consequences,* edited by Jean-Pierre Bocquet-Appel and Ofer Bar-Yosef, *pp.* 315-329. Springer Verlag.

Düring, Bleda S.
    2001 Social Dimensions in the Architecture of Neolithic Çatalhöyük. *Anatolian Studies* 51:1-18

Flannery, Kent V.
    1972 The origins of the village as a settlement type in Mesoamerica and the Near East: a comparative study. In *Man, settlement and urbanism,* edited by Peter J. Ucko, Ruth Tringham and G. W. Dimbleby, pp 23-54. Cambridge, Schenkman Publishing Company.

Gibson, Catriona, Naomi Hamilton and Jonathan Last with contributions by Peter Boyer.
    2000 Excavations at Çatalhöyük West. In *Çatalhöyük 2000 Archive Report.* *http://www.catalhoyuk.com/archive_reports/2000/ar00_05.html*

Hamilton, Naomi
    1999 "Figurines, Burials/Grave Goods and Beads." In *Çatalhöyük 1999 Archive Report.* http://www.catalhoyuk.com/archive_reports/1999/ar99_15.html

    2005 Social Aspects of Burial. In *Inhabiting Çatalhöyük: reports from the 1995-99 seasons,* edited by Ian Hodder, pp. 301-306. British Institute of Archaeology at Ankara, London.

Hastorf, Christine A.
    2012 The *Habitus* of Cooking Practices at Neolithic Çatalhöyük. In *The Menial Art of Cooking,* edited by Sarah R. Graff and Enrique Rodriguez-Alegria, pp. 65-86. University Press of Colorado.

Hodder, Ian
    2006 *The Leopard's tale: revealing the mysteries of Çatalhöyük.* Thames & Hudson, London ;New York.

Hodder, Ian, and Craig Cessford
    2004 Daily Practice and Social Memory at Çatalhöyük. *American Antiquity* 69(1):17.

Hodder, Ian and P. Pels
    2010 History Houses: a new interpretation of architectural elaboration at Çatalhöyük. In *Religion in the emergence of civilization: Çatalhöyük as a case study,* edited by Ian Hodder, pp. 163-186. Cambridge: Cambridge University Press.

Kuijt, Ian
    1996 Negotiating Equality Through Ritual: A Consideration of Late Natufian and Prepottery Neolithic A Period Mortuary Practices. *Journal of Anthropological Archaeology* 15:313-336

    1999 People and Space in Early Agricultural Villages: Exploring Daily Lives, Community Size, and Architecture in the Late Pre-Pottery Neolithic. *Journal of Antthropological Archaeology* 19:75-102

    2000 Keeping the Peace: Ritual, Skull Caching, and Community Integration in the Levantine Neolithic. In *Life in Neolithic Farming Communities: Social Organization, Identity, and Differentiation,* pp. 137-161. Kluwer Academic Publishers.

2008 The Regeneration of Life: Structure of Symbolic Remembering and Forgetting. *Current Anthrolpology* 49(2):171-197.

Kuijt, Ian, Emma Guerrero, Miquel Molist, and Josep Anfruns
2011 The changing Neolithic household: Household autonomy and social segmentation, Tell Halula, Syria. *Journal of Anthropological Archaeology* 30(4):502-522.

Kuijt, Ian and Nigel Goring-Morris
2002 Foraging, Farming, and Social Copmlexity in the Pre-Pottery Neolithic of the Southern Levant: A Review and Synthesis. *Journal of World Prehistory* 16(4):361-440.

Last, Jonathan
1996 Surface pottery at Çatalhöyük. In *On the Surface: Çatalhöyük 1993-1995,* edited by Ian Hodder, pp. 196-216. Routledge, London.

2005 Pottery from the East Mound. In *Changing materialities at Çatalhöyük: reports from the 1995-99 seasons*, edited by Ian Hodder, pp. 187-213. Cambridge: McDonald Institute for Archaeological Research, Cambridge.

Marciniak, Arkadiusz and Lech Czerniak
2007 Social Transformations in the late Neolithic and the Early Chalcolithic Periods in Central Anatolia. *Anatolian Studies*, 57:115-130.

Matthews, Wendy
1996 Multiple Surfaces: The Micromorphology. In *On the Surface: Çatalhöyük 1993-95*, edited by Ian Hodder, pp. 301-342. Cambridge, McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara.

Mellaart, James
1962 Excavations at Çatal Hüyük: First Preliminary Report, 1961. *Anatolian Stdies,* 12:41-65.

1964 Excavations at Çatal Hüyük, 1963, Third Preliminary Report. *Anatolian Studies* 14:39-119.

1965 Çatal Hüyük West. *Anatolian Studies* 15:135-156.

1967 Çatal Hüyük: A Neolithic Town in Anatolia. Thames and Hudson.

Meskell, L.
2008 The nature of the beast: curating animals and ancestors at Catalhoyuk. *WORLD ARCHAEOLOGY* 40(3):373.

Moses, Sharon

    2004 The Children of Neolithic Çatalhöyük: Burial Symbolism and Social Metaphor. In *Çatalhöyük 2004 Archive Report*. http://www.catalhoyuk.com/archive_reports/2004/ar04_34.html

    2008 Çatalhöyük's Foundation Burials: Ritual Child Sacrifice or Convenient Deaths? In *Babies Reborn: Infant/Child Burials in Pre- and Protohistory,* edited by Krum Bacvarov, pp. 45-52. Archaeopress, Oxford.

Nakamura, Carolyn, and Lynn Meskell

    2009 Articulate Bodies: Forms and Figures at Çatalhöyük. *Journal of Archaeological Method and Theory* 16:205-230.

Özdoğan, M.

    2002 Defining the Neolithic of Central Anatolia. In *The Neolithic of Central Anatolia. Internal developments and external relations during the 9th-6th millennia cal BC, Proceedings of the International CANeW Roud Table, Istanbul 23-24 November 2001,* edited by Gérard, F. and Thissen, L, pp. 253-261. Ege Yayınları, Istanbul.

Parker Pearson

    1999 Status, Rank and Power In The Archaeology of Death and Burial. Pp. 72-94. Phoenix Mill: Sutton Publishing.

Pelegrin, Jacques

    2012 New Experimental Observations for the Characterization of Pressure Blade Production Techniques. In *The Emergence of Pressure Blade Making: From Origin to Modern Experimentation*, edited by Pierre M. Desrosiers, pp. 456-500. Springer US.

Price, T. Douglas and Ofer Bar-Yosef

    2010 Traces of Inequality at the Origins of Agriculture in the Ancient Near East. In *Pathways to Power*, *pp* 147-168. Springer New York.

Simmons, Alan H.

    2007 The Neolithic Revolution in the Near East: Transforming the Human Landscape. The University of Arizona Press.

Verhoeven, Marc

    2002 Transformations of society: the changing role of ritual and symbolism in the PPNB and the PN in the Levant, Syria, and south-east Anatolia. *Paléorient* 28(1):5-13.

References Cited: Data Sources

Each of the following sources contains hard data from the ongoing excavations at Çatalhöyük. All detail the finding of human remains and grave goods accompanying them. When necessary, data was confirmed using the online database http://www.catalhoyuk.com/database/catal/

Andrews, Peter and Theya Molleson
> 1996 "North Excavation, human remains." In *Çatalhöyük 1996 Archive Report.* http://www.catalhoyuk.com/archive_reports/1996/index.htm

> 1997 The human remains. *In* Çatalhöyük 1997 Archive Record. http://www.catalhoyuk.com/archive_reports/1997/ar97_12.html

Andrews, Peter, Başak Boz and Theya Molleson
> 1999 "Report on Human Remains Recovered from the South Area, together with a summary of material from the BACH area and the KOPAL trench". In *Çatalhöyük 1999 Archive Report.* http://www.catalhoyuk.com/archive_reports/1999/ar99_14.html

> 2005 The Human Burials at Çatalhöyük. In *Inhabiting Çatalhöyük: reports from the 1995-99 seasons,* edited by Ian Hodder, pp. 216-278. British Institute of Archaeology at Ankara, London.

Bodgan, Doru
> 2005 Buidling 54. In *Çatalhöyük 2005 Archive Report: Excavations,* pp. 26-29. http://www.catalhoyuk.com/downloads/Archive_Report_2005.pdf

Boz, Başak, Jennifer Byrnes, Lori Hager, and Sophie Moore
> 2011 "Çatalhöyük Human Remains Archive Report 2011." In *Çatalhöyük 2011 Archive Report.* http://www.catalhoyuk.com/downloads/Archive_Report_2011.pdf

Boz, Başak and Lori Hager
> 2004 "Human Remains." In *Çatalhöyük 2004 Archive Report.* http://www.catalhoyuk.com/archive_reports/2004/ar04_18.html

> 2008 "Human Remains Archive Report 2008." In *Çatalhöyük 2008 Archive Report.* http://www.catalhoyuk.com/downloads/Archive_Report_2008.pdf

Boz, Başak, Scott Haddow and Lori D. Hager, contributions by Simon Hillson, Clark S. Larsen, Christopher Ruff, Marin Pilloud, Sabrina Agarwal, Patrick Beauchesne, Bonnie Glencross, and Lesley Gregorika
> 2006 "Human Remains". In *Çatalhöyük 2006 Archive Report.* http://www.catalhoyuk.com/downloads/Archive_Report_2006.pdf

Boz, Başak, Scott Haddow, Lori Hager and Marin Pilloud, contributions by Simon Hillson, Clark Larsen, Sabrina Agarwal, Sam Stout, Bonnie Glencross, and Patrick Beauschesne
    2007 "Human Remains Archive Report 2007." In *Çatalhöyük 2007 Archive Report.* http://www.catalhoyuk.com/downloads/Archive_Report_2007.pdf

Byrnes, Jennifer, Scott Haddow and Lori Hager
    2010 "Çatalhöyük Human Remains Report." In *Çatalhöyük 2010 Archive Report. http*://www.catalhoyuk.com/downloads/Archive_Report_2011.pdf

Farid, Shahina, contributions by Craig Cessford
    1999 Archive Summary for the South Area. In *Çatalhöyük 1999 Archive Report. http://www.catalhoyuk.com/archive_reports/1999/ar99_03.html*

Farid, Shahina, Lisa Yeomans and Candemir Zoroðlu
    2005 Buidling 58. In *Çatalhöyük 2005 Archive Report: Excavations,* pp. 29-33. http://www.catalhoyuk.com/downloads/Archive_Report_2005.pdf

Haddow, Scott and Lori Hager, contributions by Emmy Bocaege and Jennifer Byrnes
    2009 "Çatalhöyük Human Remains." In *Çatalhöyük 2009 Archive Report.* http://www.catalhoyuk.com/downloads/Archive_Report_2009.pdf

Hager, Lori, contributions by Başak Boz, Him Gosman, Simon Hillson, Tomasz Kozlowski, Clark S. Larsen, Marin Pilloud
    2005 "Human Remains". In *Çatalhöyük 2005 Archive Report.* http://www.catalhoyuk.com/downloads/Archive_Report_2005.pdf

Hamilton, Naomi
    1999 "Figurines, Burials/Grave Goods and Beads." In *Çatalhöyük 1999 Archive Report.* http://www.catalhoyuk.com/archive_reports/1999/ar99_15.html

House, Michael and Lisa Yeomans
    2008 Building 77. In *Çatalhöyük 2007 Archive Report: Excavations, 4040 Area,* pp. 38-51. http://www.catalhoyuk.com/downloads/Archive_Report_2008.pdf

Lucas, G. M.
    1997 The Excavation of Building 1, North Area. In *Çatalhöyük 1997 Archive Report. http://www.catalhoyuk.com/archive_reports/1997/index.html*

Appendix A: Detailed Information on Burials Collected for Analysis

Building	Skeleton	Burial Number	Area	Room/ Space	Gender	Maturity	Head Alignment	Burial Objects	Notes
1	1378	28	East	Central		old	W	Possibly bound, no direct evidence although there are angled grass blades. Single bead and yellow ochre by head	Good condition, possible smoke damage due to inhalation of smoke from household fire or emphysema. Squatting position w/ thighs splayed, heels not on ground. Arthritic hands (activity associated w/ squatting). No shoes.
1	1466	29	East	Central		adult	E		Large, decapitated probably before death
1	1364.3, 1467	29	East	Central		adolescent			
1	1928.2+3	213	East	Central		old			
1	1949, 1968	213	East	Central		adult			
1	1949, 1963	29	East	Central		old			
1	1978, 1364.2	384	East	Central		adult			
1	1364.1 ,1928.3	29	East	Central		old			
1	1364.4	29	East	Central		adult			
1	1424	30	North	Central		old	S	Grass matting on mandible	
1	1425.1	30	North	Central		adolescent			
1	1425.2+3	30	North	Central		adult			
1	1425.4	30	North	Central		adult			
1	1426	30	North	Central		infant			
1	2510	210	North	Central		infant			
1	1450	30	North	Central		infant	NE		Bones very clean, anaemia. Buried at same time as 1424
1	1464	30	North	Central		adult			
1	1481, 1489, 1934	31	North	Central		old		Large non-human rib, bovid incisor	
1	1481.1, 1491	31	North	Central		adolescent			
1	1498	31	North	Central		infant	W		
1	1481, 1483	31	North	Central		adult			
1	1481, 1482	31	North	Central		juvenile			
1	1913	35	North-West	Central		juvenile	W		
1	1495	36	North-West	Central		juvenile			
1	1923, 1448.1	38	North-West	Central		juvenile			
1	1937, 1926.4	38	North-West	Central		juvenile			
1	1448.2	38	North-West	Central		old			

Building	Skeleton	Burial Number	Area	Room/ Space	Gender	Maturity	Head Alignment	Burial Objects	Notes
1	1926.5	38	North-West	Central		adult			
1	1496	38	North-West	Central		infant			
1	1922, 1939	38	North-West	Central		juvenile			
1	1925, 1938.3	38	North-West	Central		juvenile			
1	1493, 1926.2	38	North-West	Central		juvenile			
1	1938.2	38	North-West	Central		adolescent			
1	1924	38	North-West	Central		old	SE	two amulets by neck	
1	1478, 1926.1	38	North-West	Central		juvenile			
1	1926.3, 1938.1	38	North-West	Central		juvenile			
1	2520	375	North-West	Central		juvenile			
1	1912	40	North	Central		juvenile	Face down, E	round yellow material found near knee, vertebrae, pelvis and ribs. Red paint on right hand. Buried in basket	Buried with 1950, same basket
1	1950	40	North	Central		infant	W	Same yellow substance as 1912. Buried in basket	Buried with 1912, same basket
1	1916	41	North-West	Central		infant	SE		
1	1484, 1961, 1989	42	North-West	Central		juvenile			
1	1935	44	North	Central		infant			
1	1959	44	North	Central		juvenile	N	Stained with manganese	Buried with 1960
1	1992	45	North	Central		infant	W		
1	2125, 1955.3	47	North-West	Central		infant	S		
1	2195, 1955.2	204	North-West	Central		juvenile			
1	2126, 2168	47	North-West	Central		juvenile			
1	1955.1, 2506	204	North-West	Central		old	W		
1	1995	49	East	Central		adult			
1	1960	44	North	Central		infant	N	Stained with manganese	Buried with 1959
1	2115	200	East	Central		old		Ochre and organic matter	
1	2105	202	North-West	Central		infant	SW	Lots of beads around legs and neck	
1	2169	204	North-West	Central		adult			
1	2181, 2199	205	South-West	Central		neonate			Foundation

Building	Skeleton	Burial Number	Area	Room/ Space	Gender	Maturity	Head Alignment	Burial Objects	Notes
1	2197	206	South-West	Central		neonate			Foundation
1	2141	207	North-West	Central		infant			
1	2515	208	South-West	Central		neonate			Foundation
1	2529	209	West	Central		old			Foundation
1	2527	211	Central	Central		adult			Foundation
1	2532	211	Central	Central		neonate			Foundation
1	2119	212	East	Central		juvenile		5 bone rings, plaster, ochre and organic matter	
17	5177		E	170		Neonate		red pigment, bone object	
17	5357		E	170		Neonate		yellow organic deposit	
17	5169		S	170	F	Adult		12 bone beads, clay ball	
17	5022		NW	170	F	Adult			Foundation, skull
17	5169	563	SW	170	F	Old Adult	to chest	beads, ochre	Technically in B.17, but all buried through the platforms of B.6
17	5177	564	NE	170		Infant	W	basket, buckle, ochre	Technically in B.17, but all buried through the platforms of B.6
17	5357	576	SE	170		Infant	N		bell-shaped grave. Technically in B.17, but all buried through the platforms of B.6
6	4328	442	Center	163		Neonate	N		
6	4394	460	center	163	M	Adolescent	N	Pellets, ochre	
6	4406	464	SW	163		Infant		mat, beads, ochre	
6	4424	475	NE	163		Infant	S	basket, ochre	
6	4427	476	SW	163		Infant	S		
6	4438	487	NE	163		Neonate	N	basket	
6	4458	494	NE	163		Infant		basket, beads, ochre	
6	4593	492	NW	163	M	Adult	W	ochre	decapitated, wooden plank covering body
6	4615	513	East	163	F	Adult	N	owl pellets, ochre	Soot on rib cage
6	4927	537	SE	163		Neonate	W	basket	next to the "hatch" that conncted 173 and 163, buried on the same level as the other neonates/infants
49	16660		NE	Central		Juvenile (3-5 yr)	S	yellow residue	black staining of bones, tightly flexed
49	16641		NE	Central		Juvenile (8-9yr)	S		tightly flexed
49	16638		NE	Central		Juvenile (8-9yr)	S		tightly flexed, black staining
49	16627		NE	Central		Infant (newborn)	NW		
49	16601		NE	Central		Juvenile (11-13)	S		tightly flexed, black staining, plaster on legs/feet

Building	Skeleton	Burial Number	Area	Room/Space	Gender	Maturity	Head Alignment	Burial Objects	Notes
49	17457		NW	Central		Infant	W	possibly leather, ochre, buried n basket/mat, many grave goods	
49	17485		NW	Central	M	Adult	W	yellow ochre, shell	black residue on lungs
49	16697		NW	Central	F	Adult	W		black residue on lungs, no skull
49	16698		NW	Central		Juvenile (4-6)	W		Headless
49	17412		NW	Central	M	Adult			Clearly disturbed
49	17403		NW	Central		Adult			Just hands and feet
49	14438		NW	Central		Juvenile (7-9)	S?		upper body missing
49	14440		NW	Central		Infant (3-6mo)			only ribs
49	14441		NW	Central	F	Adult	W	necklace, plaster on hand, legs and feet, yellow residue, greenstone axe with 14440	black residue in thorax
49	13609		Central	Central	M	Adult			removal of scapulae, clavicles
49	17939		NW	Central		Infant	S	basket, shell with red pigment	
77	19022		East	336		Juvenile			
77	19038 & 19053		East	336		Adult			
77	19048		East	336		Infant			
77	19039		East	336		Juvenile			
77	19500		NE	336	F	Adult		on stone palette, red pigment	
77	19501		NE	336	F	Adult			
77	19529		NE	336	F	Adult			
77	19541		NE	336	M	Adult			
77	19554		NE	336		Adult			
77	Un-numbered		NE	336		Adult			
77	19557		NE	336		Juvenile			
77	19494		N	336		Neonate			
60	12905		NW	278	F	Adult			
60	13100		NE	278		Infant			
60	13162		NE	278	F	Adult		animal bone pin, green pigment	Death in childbirth, headless, with fetus and with a basket
60	13132		NE	278	F	Adult			black reside around ankles and feet

Building	Skeleton	Burial Number	Area	Room/ Space	Gender	Maturity	Head Alignment	Burial Objects	Notes
60	13133		NE	278	M	Adult	deattached, placed close to where skull of 13132 should be		
60	13124		NE	278	F	Adolescent			
60	13125		NE	278		juvenile (15-18)			
60	12935		NE	278		Juvenile (12-14)			
88	14146		SW	309		Infant			Foundation
88	14138		SW	309		Infant			Foundation
88	14148		SE	309		Infant			Foundation
88	14150		SE	309		Juvenile			Foundation
88	14162		SW	309		Neonate			Foundation
88	14164		SW	309		Neonate			Foundation
88	14165		SW	309		Infant			Foundation
88	14137		SW	309		Neonate			Foundation
53	12528		Central	257	M	Adolescent			
53	12506		W	272		Infant			
53	12542		W	272		Infant			
53	12570		W	272		Infant			
53	14300		W	272		Infant			
53	14818		N	272		Infant	N	basket	
45	10033		West	228		Infant			
45	10112		South	238		Infant	W		Possibly placed as foundation marker
45	10109		South	238		Neonate	S		
59	14753		Central	313	F	Adult	W		
58	10267		NE	227		Infant (18mo-2yr)	E		
58	10361		SW	258		Neonate			
58	10370		SW	258		Neonate			
58	10391		SW	258		Neonate			
58	10366		NW	258		Neonate			
58	10368		NW	258		Neonate			
58	10389		NW	258		Neonate			
58	10390		NW	258		Neonate			
54	11926			266		Adult			
54	11927			266		Adult			
54	11935			266		Adult			
54	11957		W	264		Neonate			Formed line along W wall
54	11971		W	264		Neonate			Formed line along W wall
54	11972		W	264		Neonate			Formed line along W wall
54	11979		W	264		Neonate			Formed line along W wall
54	11975		W	264		Neonate			
54	11973		W	264		Neonate			
54	11982		E	265		Juvenile			close to wall of neonates but on opposite side of wall
54	11996		E,	265		Neonate			close to wall of neonates but on opposite side of wall

Appendix B: Burials by Location within Individual Houses

A table of burials for each building, comparing age and area of burial. The buildings are arranged by age from earliest to latest.

Building 17				
Area	**Neonate/Infant**	**Juvenile**	**Adolescent**	**Adult**
E	2	0	0	0
N	0	0	0	1
S	0	0	0	1
NE	1	0	0	0
SE	1	0	0	0
SW	0	0	0	1

Building 6				
Area	**Neonate/Infant**	**Juvenile**	**Adolescent**	**Adult**
C	1	0	1	0
E	0	0	0	1
NE	3	0	0	0
NW	0	0	0	1
SW	2	0	0	0
SE	1	0	0	0

Building 1				
Area	**Neonate/Infant**	**Juvenile**	**Adolescent**	**Adult/Old**
N	8	3	2	6
E	0	1	1	10
NW	5	13	1	5
SW	3	0	0	0
W	0	0	0	1
C	1	0	0	1

Building 49				
Area	**Neonate/Infant**	**Juvenile**	**Adolescent**	**Adult**
NE	4	1	0	0
NW	3	2	0	5
C	0	0	0	1

Building 77				
Area	**Neonate/Infant**	**Juvenile**	**Adolescent**	**Adult**
E	1	2	0	1
N	1	0	0	0
NE	0	1	0	6
Building 59				
Area	**Neonate/Infant**	**Juvenile**	**Adolescent**	**Adult**
C	0	0	0	1

Building 53				
Area	Neonate/Infant	Juvenile	Adolescent	Adult
W	4	0	0	0
N	1	0	0	0
C	0	0	0	1

Building 88				
Area	Neonate/Infant	Juvenile	Adolescent	Adult
SW	6	0	0	0
SE	1	1	0	0

Building 60				
Area	Neonate/Infant	Juvenile	Adolescent	Adult
NW	0	0	0	1
NE	1	2	1	3

Building 45				
Area	Neonate/Infant	Juvenile	Adolescent	Adult
S	2	0	0	0
W	1	0	0	0

Building 58				
Area	Neonate/Infant	Juvenile	Adolescent	Adult
NW	4	0	0	0
SW	3	0	0	0
NE	1	0	0	0

Building 54				
Area	Neonate/Infant	Juvenile	Adolescent	Adult
NE	0	0	0	3
W	6	0	0	0
E	1	1	0	0