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2016

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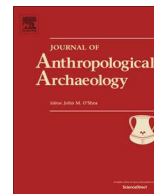
Searcy, Michael T., Bernard Schriever, and Matthew Taliaferro 2016 Early Mimbres Households: Exploring the Late Pithouse Period (550-1000 AD) at the Florida Mountain Site. *Journal of Anthropological Archaeology* 41:299-312.

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Searcy, Michael T.; Schriever, Bernard; and Taliaferro, Matthew, "Early Mimbres households: Exploring the Late Pithouse period (550–1000 AD) at the Florida Mountain Site" (2016). *Faculty Publications*. 6669. <https://scholarsarchive.byu.edu/facpub/6669>

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## Early Mimbres households: Exploring the Late Pithouse period (550–1000 AD) at the Florida Mountain Site



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### ARTICLE INFO

#### Article history:

Received 21 October 2014

Revision received 27 January 2016

#### Keywords:

Household  
Intermittent site  
Pitstructure  
Southwest  
Mimbres

### ABSTRACT

Many studies have explored the household to understand social organization, production, and other dynamics of societies throughout the world. In this work, the approach outlined by Richard Wilk and colleagues is used to investigate households at the Florida Mountain Site, an intermittently occupied Late Pithouse period (550–1000 AD) residential site in the Mimbres Mogollon area of Southwestern New Mexico. Drawing on the similarities of this intermittent residential site to contemporaneous pitstructure sites in the Mimbres area, we suggest that one or more household units occupied the site. Our analysis also supports previous inferences that Mimbres households were integrated into more inclusive levels of social organization (e.g., extended kin groups, villages, communities), but also indicate that this integration maintained cohesion during seasonal residential movements from more permanently occupied pitstructure sites.

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### 1. Introduction

The diversity of schema by which people organize to meet their reproductive and socio-economic needs has been discussed by several scholars (Bender, 1967; Douglass and Gonlin, 2012; Flannery and Sabloff, 2009; Goody, 1972; Kuijt, 2000; Wilk and Netting, 1984; Yanagisako, 1979). This research indicates that groups are highly flexible and that correlations between social organization and architecture are anything but normative. Rather, architecture is often functional in that it is built to serve specific needs such as residential space, communal space, or socio-religious space of various levels of inclusion within a group; i.e., nuclear family, household, kin group, and moiety.

Further, the architectural requirements of a group can change depending on things such as anticipated length of occupation and purpose of occupation at a location. This later point is something often overlooked where sites containing ephemeral or less-permanent architecture are underrepresented in regional survey and excavation efforts. This is likely because they typically occur in marginal areas that have not been the focus of survey and are perhaps perceived as not holding the promise of data to address research questions on par with more permanent habitation sites.

However, we should be interested in how people organized in any society to make a living from the landscape and be willing to entertain the possibility that social organization may or may not have varied between sites of varying durations of occupation and purposes. In this case, defining the relationship between social organization and architecture becomes the task and not something that can be assumed dependent on individual variables such as structure size.

This paper works to explore this task in archeological inquiry using an example from the North American Southwest. Based on differences in the sizes and characteristics of excavated architecture in this region, culture histories commonly present a dichotomy between small residential structures and larger communal structures during the pitstructure periods that precede the transition to living in pueblos (Wills, 2001, 2007). Further, it is typically assumed that small residential structures were the dwellings of individual households (Hegmon, 2002; Wills, 2001, 2007).

The interpretation of small pitstructures as household residences during pithouse periods appears to be based upon three factors. First, the fact that they were the most common architectural form during pitstructure periods suggests that these structures represent the residence of the basic social unit, the household (see Goldsmith, 1993 for discussion of this principle). Second, the domestic nature of the artifacts and features associated with small pitstructures supports this interpretation. Third, the size of these structures has been used to suggest that the occupants

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were either a nuclear or extended family. In contrast, large pit-structures often exhibit architectural differences and evidence of behavioral activity that set them apart from small pitstructures, even though some domestic activity may still occur within them (Adler, 1989; Lipe and Hegmon, 1989). Recent archeological investigations and ethnographic data challenge the normative dichotomy between large and small pitstructures and have worked to change the notion that all small pitstructures were residential and occupied by individual households (Creel and Anyon, 2003; Hegmon, 2002; Hegmon et al., 2000; Lucas, 1996, 2007; Wills, 2001, 2007).

This paper continues to address this misperception through an investigation of household organization of groups that occupied the Florida Mountain Site (LA 18839), an intermittent Mimbres Late Pithouse period (550–1000 AD) occupation partially excavated in 1985. We define *intermittent occupation sites* as those that consist of temporary or less-permanent architecture where people likely only lived for short durations of time. Some have labeled these sites as “limited activity” or “limited occupation” sites (Nelson and Lippmeier, 1993; Ward, 1978), but we feel this suggests that perhaps not all activities carried out at more permanent sites are found or conducted at these less-permanent sites.

The Mimbres culture of southwestern New Mexico represents a branch of the Mogollon, one of the major cultural traditions in the North American Southwest. While variation exists in the timing and degree of change among Southwest cultural groups, most populations, including the Mimbres Mogollon, share a similar developmental trajectory that includes: the adoption of agriculture and ceramic technology, becoming increasingly dependent on cultigens, decreasing residential mobility, population aggregation, and a transition from pitstructure architecture to pueblos. In the Mimbres region, many of these processes began or took place during the Three Circle phase (800–1000 AD) and are related to the social transformations in Mimbres society, marking the transition from pitstructure to pueblo architecture at the beginning of the Classic period (1000–1150 AD).

We argue that evidence from the Florida Mountain Site suggests that Mimbres people lived similar lives (organized socially) at temporary residential, possibly seasonal, sites that were similar to the lives they lived at more permanently occupied pitstructure sites. While we were unable to fully excavate the Florida Mountain Site, we used available data to develop an interpretation of household organization that provides a preliminary view of how Mimbres people organized themselves on the household level during the Late Pithouse period, especially at sites peripheral to more permanent villages. This serves as an initial model for the examination of household organization at contemporaneous Mimbres pitstructure sites and further demonstrates the utility of household studies for archeological communities in other regions of the world.

Drawing on the work of Lightfoot (1994), Varien (1999), and Wilk and colleagues (Ashmore and Wilk, 1988; Wilk and Netting, 1984; Wilk and Rathje, 1982), we appraise the presence of households at the Florida Mountain Site by examining artifacts, site layout, site setting, and the relationships between artifact distributions and architecture for evidence of the five practices (production, distribution, coresidence, transmission, and reproduction) typically organized at the household level (Wilk and Netting, 1984; Wilk and Rathje, 1982). The results suggest that one or more households occupied the site contemporaneously and that these occupations included the construction and use of communal space. Given these results, we then discuss the potential ramifications for understanding Mimbres social organization at pitstructure villages.

At a broader scale, this work seeks to demonstrate the potential that intermittent occupation sites can hold to address even difficult questions such as the stability of group social organization and lifestyle during mobility away from permanent villages. In the case of

this work, we suggest that Mimbres groups lived and organized socially in a similar fashion regardless of whether they were residing at permanent villages or intermittent occupation residences, perhaps indicating the earlier existence of rigid worldviews or social expectations that have been suggested for the subsequent Classic Period.

## 2. Household archeology

Because they represent the basic scale at which social organization articulates with material culture, investigating households is key to exploring social processes in societies past and present. Unfortunately, the concept of the household was ambiguous in the past, often confounded with other social formations such as the family or the residential group (see Netting et al., 1984, pp. xiii–xxxviii; Wilk and Netting, 1984, pp. 1–4). Cross-cultural ethnographic studies indicate that the way people come together, the activities they pursue, and the material correlates of these activities vary considerably (Hendon, 1996; Wilk and Netting, 1984; Wilk and Rathje, 1982; Yanagisako, 1979). As an example of the variation that can exist between households and residences, Wilk and Rathje (1982, p. 620) noted that multiple households may reside under the same roof or a single household may reside under multiple roofs.

Early studies concerning households often conflated multiple variables into their unit of analysis, so much so that Western notions of a *household* composed of a *nuclear family* came to characterize these studies, and they made no attempt to distinguish between the two terms. Bender (1967) sought to break this combination down into its variant analytical units. He believed that when one sought to investigate households and families, they were examining “three distinct social phenomena: families, coresidential groups, and domestic functions” (Bender, 1967, p. 495). Each of these structural units could vary within the same social group depending on multiple factors. Bender’s analysis shifted the focus within household studies away from one interested in the morphology of the household unit to a focus on household practices. To Bender (1967), households performed domestic functions that aid the household group in meeting the basic needs of survival and reproduction.

While Bender’s critique allowed households to be approached in a more meaningful fashion, Goody (1972) realized that there were potential problems in assessing the household in structural terms as well as in economic terms without taking the historical development of a particular social group into account. This critique was well suited for the implementation of the study of households in archeology, and several studies (e.g., Haviland, 1988; Whalen, 1988) have used an historical materialist approach to households in order to study structural changes in social and political organization.

Wilk and Rathje (1982, p. 618) sought to rectify the ambiguity of what constitutes a household by defining the household as “the most common social component of subsistence, the smallest and most abundant activity group.” The crucial distinction in this definition is the cooperative social and economic action of household members to meet their needs, not kinship relations or coresidence. Wilk and Rathje (1982) note that archeologists must first be able to isolate the physical architectural structure before being able to discern the actual groups that lived within its confines and the actions they performed. They believe that archeologists can begin to make inferences about the nature of the household units within a given social system by obtaining a detailed knowledge of the society’s economic and subsistence activities. This is accomplished through studying the social practices of households, which are the basic activities that households

perform cross-culturally. Because these different practices are performed at different social scales, they allow archeologists to make inferences into the nature of household structure with regard to the manner in which activities are organized within a particular society.

Wilk and his colleagues (Wilk and Netting, 1984; Wilk and Rathje, 1982) developed a behavioral approach to investigate the household by focusing on five practices that households commonly perform to meet the needs of their members:

- (1) *Production*: the procurement and processing of resources.
- (2) *Distribution*: the movement, exchange, and consumption of resources.
- (3) *Transmission*: the assignment or transfer of rights, privileges, property, and resources between generations and among members.
- (4) *Reproduction*: the social and biological reproduction of the household.
- (5) *Coresidence*: the regular occupants of a common, defined space.

While each of the five practices is performed in any society, the level of social organization within a society at which these functions are accomplished can vary. In addition, the evidence for each of the five practices is variable depending on preservation conditions and other factors. The household in any society is not necessarily definable as the social entity that fulfills all these functions, but rather the smallest group in which the maximum overlap of the fulfillment of these functions occurs (Wilk and Netting, 1984, p. 5). The key to identifying the household in any society is to determine the level of social organization at which the greatest overlap occurs in the performance of the five practices. Most importantly, the household cannot be reliably inferred simply based on generalized principles or drawing on similarities between architecture and material culture to households in other societies.

The research established by Wilk and his colleagues (Wilk and Netting, 1984; Wilk and Rathje, 1982) continues to influence and contribute to household archeology today. Recent research shows how it can suggest changes in social stratification and diversity (Kuijt et al., 2011; Robin, 2003), track transitions in social structure (Flannery, 2002; McCormack, 2012), define the organization of household production (Gougeon, 2012; Neff, 2012; Robin, 2015), or mark the reconstruction of social traditions (Overholtzer, 2015).

### 2.1. Household studies in the Southwestern United States

Particularly salient studies of household organization within Southwestern archeology are Lightfoot's (1994) study of households at the Duckfoot site, Varien's (1999) analysis of mobility strategies in the Mesa Verde area, and studies dealing with households in the Hohokam heartland (Clark, 2001; Craig and Henderson, 2007; Wilcox et al., 1981). Our approach follows Lightfoot's work because it is a well thought out and executed example of household investigation in the Southwest that has not been eclipsed by later studies.

This is particularly true in the Mogollon region where some archeologists have approached household studies, especially during the Classic Period (e.g., Clayton, 2006; Gilman, 1989; Gilman and Shafer, 2003; Hegmon et al., 2006; Nelson et al., 1978; Shafer, 1982), but not at the same scale. Despite a considerable number of sites with multiple excavated pitstructures, there have been few investigations into Mimbres households during the Late Pithouse period (see for example Lucas, 1996; Hegmon et al., 2000). Rather, the majority of previous research relevant to social organization during this period has focused on sociopolitical (egalitarian, corporate, network) relationships within Mogollon society

(Creel, 2006; Feinman et al., 2000; Gilman, 1990; Lightfoot and Fienman, 1982; Powell and Gilman, 2006; Railey, 2000).

While distinct differences in social organization exist between Puebloan populations in the Mesa Verde region and those in the Mimbres Mogollon region, we maintain that Lightfoot's seminal work provides a fundamental model for household studies across the southwest particularly because of the similar developmental trajectories of populations across the region. Lightfoot utilized the method developed by Wilk and others (Wilk and Netting, 1984; Wilk and Rathje, 1982) and focused his analysis on the material correlates of the household practices of production, distribution, reproduction, transmission, and coresidence. Lightfoot analyzed architectural remains to investigate coresidence patterns and production practices. This analysis led to the conclusion that the group who constructed the architectural suite would have been the ones who inhabited its facilities, though the aggregation of multiple architectural suites would have necessitated organization of production activities above the level of the architectural suite group. These data, coupled with data obtained from different tool classes associated with subsistence practices, led Lightfoot to conclude that agricultural production and the construction of architectural suites was organized at the household level (Lightfoot, 1994: 154).

Several other studies have approached household research in Southwestern archeology. Some have tended to utilize a direct historical approach that analyzes prehistoric household organization by looking at the spatial distribution and organization of extant Puebloan groups (e.g., Cameron, 1999a,b; Hill, 1970; Hill and Hevley, 1968). Other researchers have looked at household activities to answer questions pertaining to social change (e.g., Dean, 1989; Hegmon et al., 1998; Lowell, 1989; Roth, 2000), and the production and consumption of goods (e.g., Bernardini, 2000; Dean, 1989; Gilman, 1989; Hagstrum, 2001; Hegmon et al., 1998; Roth, 2000). These researchers have shown that the organization of household practices is a critical link in determining how social systems were organized and how the household is incorporated into larger social entities such as communities and villages (e.g., Bawden, 1982; Craig and Henderson, 2007; Hegmon et al., 1998; Lowell, 1989; Varien, 1999; Whittlesey, 1989).

### 3. The Florida Mountain Site (LA 18839)

This section gives an overview of the Florida Mountain Site setting and details regarding the architecture and material culture identified during excavation in order to set the stage for identifying households. The site is situated on the western alluvial fan of the Florida Mountains southeast of Deming, New Mexico (Fig. 1). The Florida Mountains are one of the topographic islands that rise out of the Chihuahuan Desert, a vast expanse of high desert dominated by creosote and desert shrubs and bounded by semi-desert grasslands where elevations increase (Brown, 1994; Diehl and LeBlanc, 2001; Lekson, 2006; Minnis, 1985). Without the aid of irrigation, it is likely that crop cultivation at or around the site would be difficult, and the nearest source of reliable water is a spring at the base of the talus slope roughly four kilometers to the northeast (Neher and Buchanan, 1980).

In a study conducted previously by Schriever (2002), he demonstrated that the Florida Mountain Site represents a seasonal residence that was likely repeatedly occupied during the Late Pithouse period for procuring desert resources. What constitutes anticipated short, medium, and long duration occupations varies among groups and thus must be studied through comparison of a particular group's range of occupations (Kent, 1991, 1992). Schriever (2002, pp. 152–214) found that six variables (seasonality of architecture, artifact diversity, discard behavior, structure type,



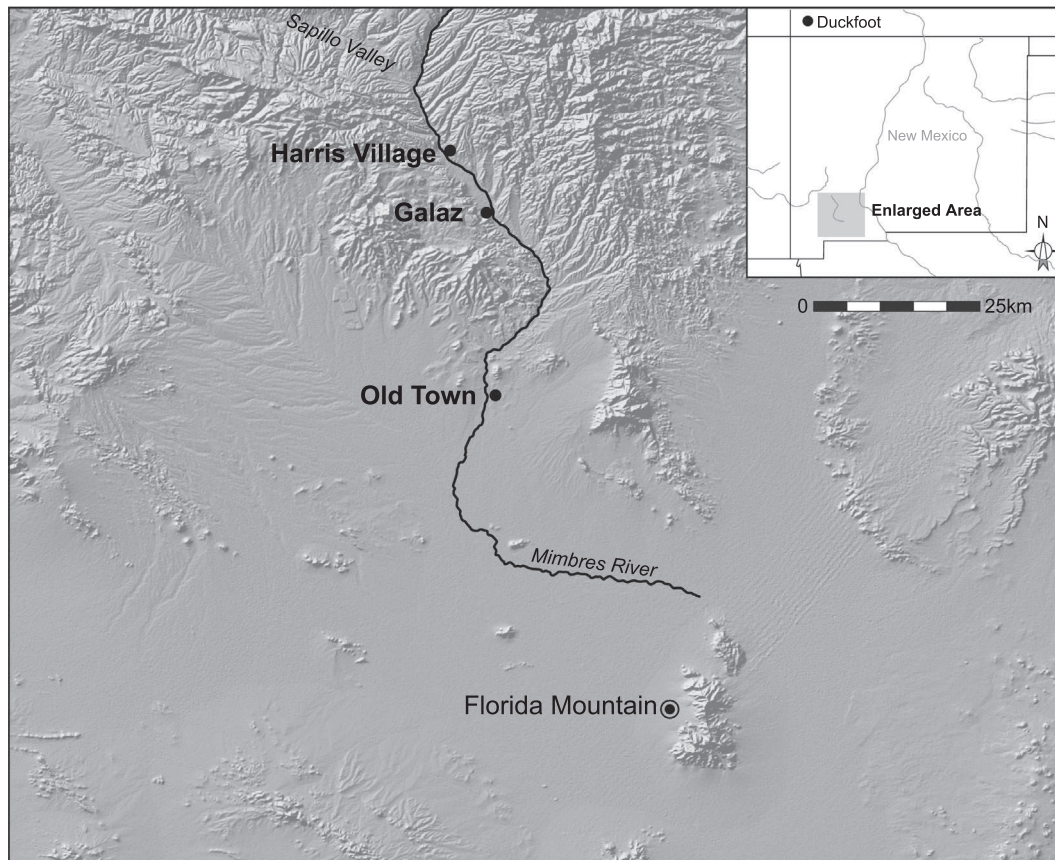


Fig. 1. Location of Florida Mountain Site and Late Pithouse period pitstructure sites discussed in text.

structure material, and evidence of maintenance behavior) indicated that the Florida Mountain Site indeed represents an intermittent occupation in contrast to contemporary Late Pithouse period pitstructure sites such as Galaz and Harris (Fig. 1).

Evidence for this intermittent occupation at the site includes the identification of non-domesticated plants and wild game (Schriever, 2002). No cultigens were present in the processed flotation samples, and only wild plant remains representing economically important taxa were represented. This and faunal evidence suggests that the economic focus of the site inhabitants was the procurement, processing, storage, and consumption of wild plants and game (Schriever, 2002).

As such, the Florida Mountain Site differs from more permanent Late Pithouse period pitstructure sites in significant ways. First, the site setting differs from pitstructure sites that are located in the watered river and tributary valley settings of the region. Second, the settings of more permanent pitstructure sites are conducive to maize agriculture, which is commonly represented in the material remains from these sites. Third, there is substantial investment in architecture at pitstructure sites, which combined with the labor demands of maize agriculture, suggest extended or continual site occupation (Fig. 2).

Excavations were conducted at the Florida Mountain Site in order to begin assessing the role that marginal areas played in the subsistence practices of Mimbres populations during the Late Pithouse period (Minnis and Wormser, 1984). Minnis divided the site into three sample strata: (1) stone concentrations, (2) the areas between stone concentrations, and (3) the site periphery. The excavations included a systematic surface collection and excavation of 82 loci (roughly one square meter each) within the three sampling strata.

The site is comprised of eight circular to semi-circular stone rings and a large artifact scatter (Fig. 3). Cultural deposits were typically half a meter in depth and limited to the distribution of the artifact scatter. Within the four excavated structures, Minnis recorded no evidence of floors, postholes, or superstructure. However, the excavations provided evidence that the structures were architectural, as stacked rocks still remained in places around their perimeter and one stacked rock feature occurred within Structure 8. It is not certain how these structures were built, but Paul Minnis and Roger Anyon (personal communication, 2016) suggest it is possible that small, dry-laid stone circle foundations were used to support brush structures. The only other notable features encountered during excavations were a hearth inside Structure 5 and the base of a large oval storage pit below Structure 1. The remains of six individuals were encountered in the area between structures; two articulated burials from Unit 14 and two concentrations of human remains from Unit 11 (Table 1).

Over 3000 pieces each of ceramic sherds, lithic debitage, and animal bone fragments were recovered from the excavation units. Ground stone consisted of 11 whole or fragmented metates and 31 whole or fragmented manos. Interestingly, the diversity of cultural material recovered during excavations is similar to that recovered from contemporary pithouse villages such as Harris Village and Galaz (Anyon and LeBlanc, 1984; Haurly, 1936; Minnis and Wormser, 1984, p. 244; Schriever, 2002). Drawing on the work of Rapoport (1990), Kovacik (1999) and Watanabe (1992) that note how the built environment serves to structure social interaction, we view these similarities in recovered cultural material as suggesting the occupants of the Florida Mountain Site may not have led significantly different lives than when residing in pitstructure villages. Rather, they tried to recreate, to the extent feasible, the

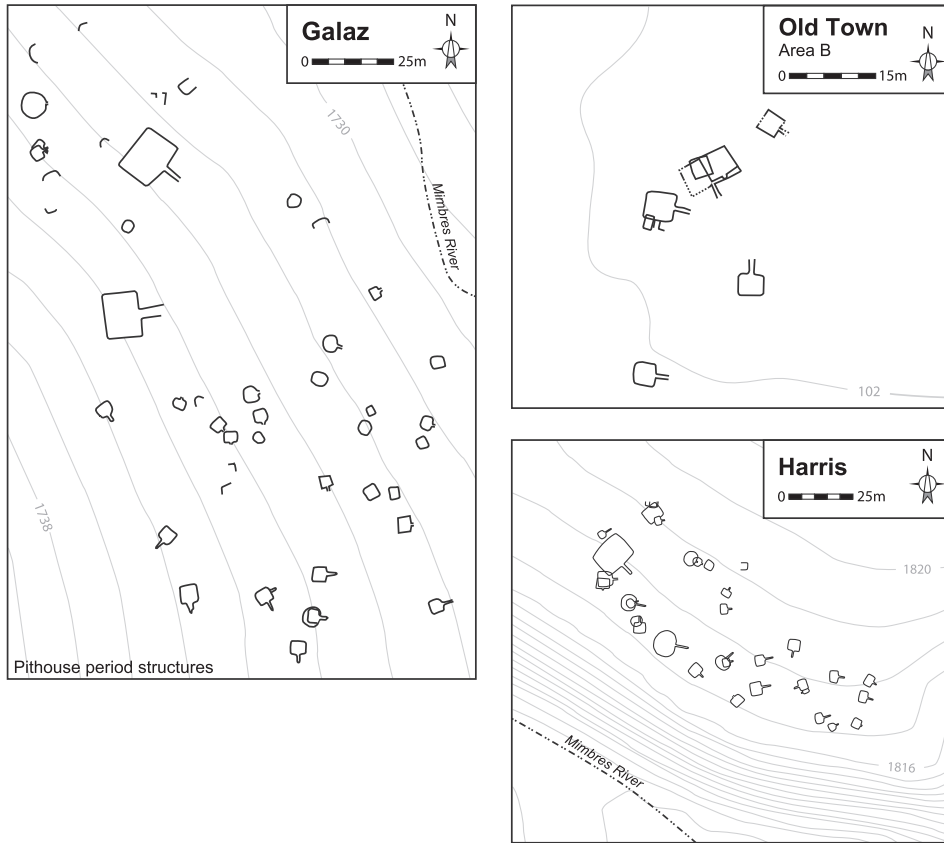


Fig. 2. Mimbres sites with Late Pitstructure Period components.

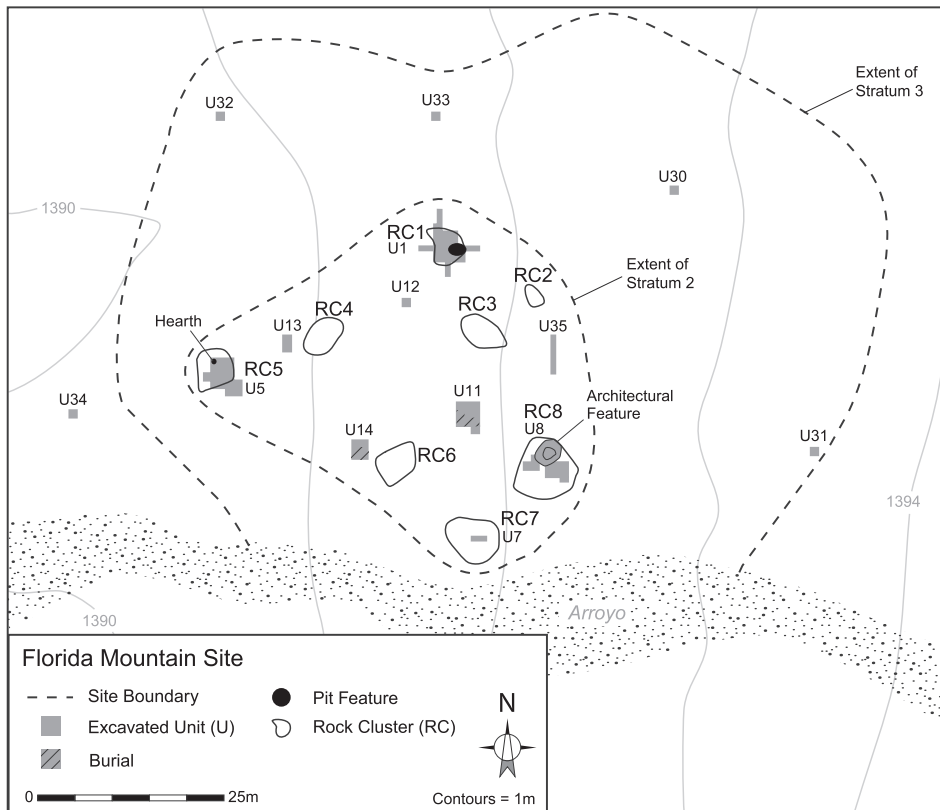


Fig. 3. Map of Florida Mountain Site, showing strata, units, loci, rock clusters, and features.

**Table 1**  
Florida mountain burial data.

Burial #	Age	Sex
1	Adult	Indeterminate
1	Juvenile	Indeterminate
2	Adult	Indeterminate
3	30+	Female
4	30+	Male
N/A	Adult	Female

social setting of permanent villages when at intermittent occupation residences. Such behavior is hardly novel and there are ethnographic cases where even large groups of a few hundred recreate the built and social environment when at seasonal residences (Maybury-Lewis, 1967).

Because no materials suitable for absolute dating were recovered during excavation, Minnis and Wormser (1984) drew on the diagnostic ceramics to date the site to the San Francisco phase (650–800 AD) or the Three Circle phase (800–1000 AD) of the Late Pithouse period (Table 2). There are differences in the distribution of diagnostic sherds within the three adequately tested Structures (1, 5, and 8). However, all these clusters contain sherds that span most of the Late Pithouse period (550–1000 AD) and include non-contemporaneous sherd types – Mogollon Red-on-brown and Mimbres Black-on-white Style II – suggesting the site was repeatedly occupied (Brody, 2004; Powell, 1991, 1996; Shafer and Brewington, 1995).

Frequency seriation analysis of decorated ceramics was conducted to investigate the patterning of occupation present at the site (Fig. 4). This work indicates that there were two spans of occupation during which multiple structures were used. During the first span, structures 1, 5, and 8 were all occupied while only structures 1 and 5 were occupied during the later. Unfortunately, current evidence precludes that structures had contemporaneous occupations. However, the overlapping production dates associated with the ceramics used in the analysis suggest that individual structures were likely reoccupied seasonally throughout the site's entire occupational span. The one exception is Structure 8, which appears to have been occupied early on in the history of the site (pre-AD 700) but was not reoccupied during the latter portions of the Three Circle phase. Taken together these data potentially demonstrate that three pit-structures were occupied simultaneously during the late San Francisco phase/early Three Circle phase. At some point in time before 825 AD, Structure 8 was abandoned and ceased to be reoccupied throughout the remainder of the Three Circle phase. Similarly, Structure 5 fell into disuse sometime before 925 AD and was not reoccupied. Structure 1 continued to be occupied throughout the remainder of the Three Circle phase.

In regard to Mimbres social organization, structure size is another line of data that supports the inference that there may be a similar social structure at intermittent occupation residential sites and pitstructure sites. Table 3 provides a comparison of the area of Florida Mountain Site structures to the range of areas for inferred residential and communal pitstructures from Late Pit-

house period sites. The sizes of Structures 7 and 8 are consistent with communal pitstructures while the remaining structure sizes, except Structure 2, fall within residential pitstructure ranges. However, if the semicircular arc of rock that composes Structure 2 is used to infer the probable circumference of the cluster, the cluster would fall within the range for residential pitstructures.

In an effort to provide grounding for inferences about the formation processes at the site, a site structure analysis (Wandsnider, 1996) was conducted using data from 47 of the 82 excavated loci representing all three excavation strata and all excavated units from the site (Schriever, 2002). While our analysis does not include all excavated loci, the 47 loci used represent a significant data set that is only surpassed by the data sets of the few multi-year excavations of permanent village sites in the region.

The site structure analysis focused on artifact distributions and the potential human and natural processes that could lead to the observed patterning associated with the five household practices discussed below. Based on the analysis, post-depositional site formation processes affected the archeological context of the site, but the integrity of most of the human behavioral patterns was preserved. This result is consistent with Gregg et al.'s (1991) suggestion that even when post-depositional formation processes have had a considerable effect on the depositional patterns related to human behavior, site structure is generally maintained although there is a loss of pattern resolution.

Based on the distribution and densities of artifacts, the greater part of household activities appears to have occurred in and immediately adjacent to the structures (Table 4). The majority of low frequency artifacts occur in structures: unifacial retouch flakes (64%), bifaces (86%), cores (57%), ground stone (60%), stone bowls (75%), quartz crystals (92%), shell (79%), obsidian (80%), and hammerstones (83%). Further, the densities of artifacts in and between structures are at least three times greater than at the site periphery or offsite. There is little difference in the densities of most artifacts within or between structures, but ceramics are more prevalent within the structures. The similarities in artifact density between Strata 1 and 2 suggest informal refuse discard as would be expected for a short-term occupation (Kent, 1999, p. 81; Schiffer, 1995, pp. 31–33; Whalen, 1994, pp. 6–8). Formal, long-term refuse discard behavior would be evidenced by locations, such as middens, with significantly higher artifact densities. Finally, differences among the three well-tested structures (1, 5, and 8) indicated that the range and scope of activity in Structure 1 and Structure 5 are generally similar, and that they differ in scope from those in Structure 8 (discussed later). Because of the limited amount of excavation conducted in Structure 7, it is not considered further.

#### 4. Identifying households at the Florida Mountain Site

Now that the structure of the site and its components has been established, we can begin to characterize evidence for practices that allow us to identify household functions. Here, we follow the approach of Wilk and colleagues in viewing the household as

**Table 2**  
Number of Mimbres painted ceramics and date ranges.

Phase	Dates	Ceramic type	Count
San Francisco	650–800 AD	Mogollon Red-on-brown	24
Three Circle	800–900 AD	Three Circle Red-on-white	36
		Three Circle Red-on-white or Style I Black-on-white	2
		Style I Black-on-white	12
		Style I Black-on-white or Style II Black-on-white	3
Late Three Circle	900–1000 AD	Style II Black-on-white	7

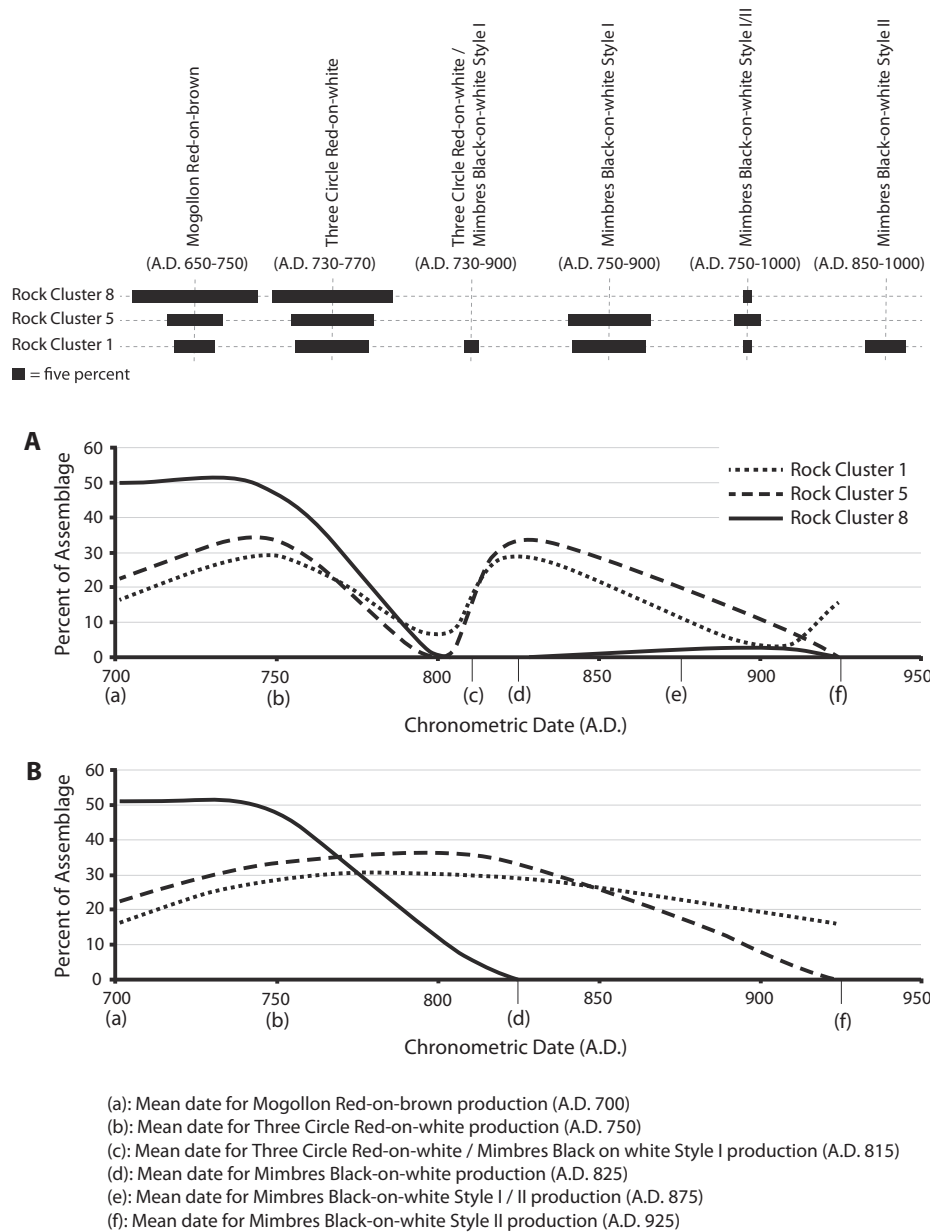


Fig. 4. Ford diagram and smoothed frequency curve of decorated ceramics present at the different rock clusters within the Florida Mountain Site.

Table 3

Comparison of the Florida Mountain Site rock cluster sizes to the range of sizes for Mimbres Late Pithouse period residential and communal structures from Anyon and LeBlanc (1984: Tables 5.4 and 7.9).

	Structure size (residential) (m <sup>2</sup> )	Structure size (communal) (m <sup>2</sup> )
Range of Late Pithouse period pithouses	6.3–23.3	31.9–175.3
<i>Florida Mountain Architecture</i>		
Rock Cluster 1	18.9	
Rock Cluster 2	5.1	
Rock Cluster 3	19.1	
Rock Cluster 4	17.4	
Rock Cluster 5	22.8	
Rock Cluster 6	21.3	
Rock Cluster 7		34.5
Rock Cluster 8		52.2

something to be investigated by studying the scale at which the functional behaviors commonly associated with households occur at the Florida Mountain Site. We likewise follow Varien's (1999)

reading of Wilk and others and instead view “household functions” as “household practices” (1999, p. 17). We do not assume that household units, as opposed to segmented task groups, are present. Rather, we expect the following analysis to identify their presence or absence through an evaluation of the scale at which the five functions noted above occur. If, for instance, the occupants of a site were a specialized task group focused on game procurement, then we might expect to find only evidence for production and distribution, such as the tools used to procure and process game. In contrast, a concurrence between patterning of evidence for typical household functions and the structures would suggest the presence of households. Given the ephemeral nature of the architecture and limited number of features, our analysis focuses on the presence and distribution of artifactual evidence to assess the household practices of production, distribution, transmission, and coresidence by the sites' inhabitants. As mentioned above, the evidence for these practices is variable depending on preservation conditions and other factors, and due to the lack of evidence in this dataset, we were not able to assess the practice of reproduction.



**Table 4**  
Total artifact, ceramic, lithic, and faunal densities in strata and rock clusters. Note: Only two loci were excavated in Rock Cluster 7 so the data from the cluster are not considered sufficient for comparison.

	Excavated volume (m <sup>3</sup> )	Ceramics		Lithics		Fauna		All artifacts	
		Total #	Density (m <sup>3</sup> )	Total #	Density (m <sup>3</sup> )	Total #	Density (m <sup>3</sup> )	Total #	Density (m <sup>3</sup> )
Stratum 1	11.86	1893	160	1333	112	631	53	3935	332
Stratum 2	6.1	632	104	667	109	368	60	1682	276
Stratum 3	1.68	56	33	81	48	22	13	161	96
Off Site	.38	13	34	9	24	1	3	23	61
Rock Cluster 1	4.85	698	144	718	148	322	66	1750	360
Rock Cluster 5	2.64	276	105	394	149	249	94	929	352
Rock Cluster 7	.50	21	42	37	74	12	24	70	140
Rock Cluster 8	3.87	898	232	184	48	48	12	1186	306

**Table 5**  
Distribution of cores, hammerstones, and bifaces.

	Rock Cluster 1	Rock Cluster 5	Rock Cluster 8	Stratum 2	Other
Cores	2	2	9	10	0
Hammerstones	0	1	4	1	0
Bifaces	5	10	42	5	6

#### 4.1. Production

Wilk and Netting (1984: 6–9) identify production as activity through which resources are obtained and value is added to them in the form of labor or processing. Household production involves the scheduling of tasks that exists along a continuum between linear and simultaneous scheduling (Wilk and Rathje, 1982). Linear tasks can be accomplished through an individual sequentially scheduling the operational chain of production, while simultaneous tasks are accomplished through collective work. Simultaneous scheduling can be subdivided into simple and complex varieties, with simple simultaneous tasks being accomplished through collective works where all actors perform the same action. Likewise, complex simultaneous tasks require a collective project, but the links within the operational sequence are isolated to specific groups of individuals. Different tasks require different types of scheduling and determine whether the household is a viable production unit in certain circumstances.

For small-scale agriculturalists, such as the Mimbres, production activities would include things such as agriculture, hunting, gathering, pottery manufacture, and trade. Of note, many production activities are part of chains of related activities that are often performed by the same people and grade into distribution activities. An example of an activity chain would be hunting, skinning, butchering, cooking, serving, eating, and cleaning up afterward. Artifactual evidence for production activities would include the presence of raw materials, finished goods, and the tools of production. There are many production activities evidenced at the Florida Mountain Site. So here, we focus on a few of the most prevalent.

##### 4.1.1. Lithic tool production

The excavated lithic assemblage from the Florida Mountain Site includes the full range of reduction products from raw material (23 cores) to formal tools (68 bifaces) indicating that all phases of lithic reduction occurred at the site. In just the 47 analyzed loci, some 2100 flakes, informal tools, and debris represent both products and the by-products of production activities. Finally, six hammerstones, the tools of production, were also recovered. Interesting differences occur in the densities of lithics among structures. Structure 1 and Structure 5 exhibit similar amounts of lithic production while the scope of lithic production in Structure 8 is considerably less (Table 4). On the other hand, the distributions of the tools of

production (hammerstones) and formal products of production (bifaces) are overwhelmingly concentrated in Structure 8 (Table 5).

While it may be assumed that debitage related to production would be found with the tools or products of production, ethnographic observations provide insights into behaviors related to the removal of debitage and the storage of production tools. Moholy-Nagy (1990) has suggested many of the workshops identified in archeological contexts actually represent “workshop dumps” where debitage has been discarded secondarily after it was produced as a by-product of lithic manufacture at home workshops. She states that debitage “is unpleasant to have around living areas, particularly in regions where most of the population habitually goes barefoot...it eventually must be relocated” (Moholy-Nagy, 1990, p. 272).

Searcy (2011) also found that metate producers in Guatemala often removed any debitage that resulted from working basalt metates and manos at their home workshops. One informant stated that after he finished working on a metate he would sweep up the small pieces of basalt from his workshop located on his home’s patio and deposit the refuse in an area at the perimeter of the property surrounding his house (Searcy, 2011, p. 54). So while lithic debitage was removed from the house proper, his chisels and finished manos and metates would all be stored in or around his house.

Following these lines of evidence, it could be suggested that Structure 8 represented a structure with a workshop component that was cleared after tools were produced. One reason for removing debitage from work areas may be that these workshops were also part of the living area. Leaving sharp debris on the ground would have the potential of harming household members’ feet as they walked over the work area, as has been suggested by Moholy-Nagy (1990, p. 272).

##### 4.1.2. Hunting and butchering

The Florida Mountain Site contained a large assemblage of faunal remains that provide evidence for hunting and butchering by the site’s occupants. The identifiable bone is dominated by economically important species such as cottontail rabbits, jackrabbits, pronghorn, and deer. These are the by-products of production and consumption activities, some of which evidence human modification and burning (Schmidt, 2002). Corresponding to the lithic data, the density of faunal remains in Structure 8 is considerably less than in Structure 1 or Structure 5, which are similar (Table 4).

**Table 6**  
Distribution of metates and manos.

	Rock Cluster 1	Rock Cluster 5	Rock Cluster 8	Stratum 2	Other
Metates	2	3	2	3	4
Manos	4	3	9	5	10

Another line of evidence for hunting is the tools of production represented by the 28 broken projectile points from the site. The breakage patterns (impact fractures and haft snaps) on these tools are consistent with use in hunting (see Dockall, 1999; Keeley, 1982; Odell, 1981; Odell and Cowan, 1986 for descriptions of these patterns). Here again, the distribution of the tools of production contrasts with the by-products of production, the faunal remains. Structure 8 contained almost three times the number of bifaces than Structure 1 and Structure 5.

#### 4.1.3. Gathering and processing vegetal food

While no cultigens were recovered from the Florida Mountain Site, there is ample evidence for the gathering and processing of vegetal foods. Despite that only 37 of the 254 flotation samples from the site have been analyzed (Greaves, 1982; Schrieffer, 2003), identifiable burned remains were recovered representing four economically important food plant taxa: cheno-ams (*Chenopodium, amaranthus*), tansy mustard (*Descurainia* spp.), dropseed (*Sporobolus* spp.), and walnut (*Juglans major*). While these preliminary data indicate that gathering and processing of vegetal foods occurred at the site, the small number of flotation samples processed to date and the limited amount of preserved material recovered do not permit evaluating the spatial distribution of this line of evidence.

In addition to the direct evidence for the procurement and processing of vegetal foods at the site, the 11 metates and 31 manos (tools of production) recovered from the excavations represent indirect evidence for these activities. Looking at the distribution of the ground stone (Table 6), Structure 8 contains about half of the ground stone recovered from the structures while the rest is equally split between Structure 1 and Structure 5. Only the 15 whole manos could be confidently typed; eleven as one-handed manos and four as two-handed manos. The four whole metates and four of the metate fragments could be typed; six being basin shaped with the other two being flat/concave in cross-section.

While metates and manos were likely multi-task grinding implements, Adams (1999) found through experimentation that ground stone designs may provide a means to assess their intended purpose (see also Horsfall, 1987). Adams' (1999) results indicate that basin metates work well for grinding seeds, while flat/concave metates work best with moister materials because of the difficulty in isolating and containing dried materials on their use surfaces. Basin metates would work well for processing small hard seeds such as the cheno-ams, tansy mustard, and dropseed found at the Florida Mountain Site. Flat/concave metates would have been more efficient for processing foods with higher moisture content like walnut (*Juglans major*) and piñon. Although form may not always be associated with function (see Searcy, 2011, p. 11), the co-occurrence at the Florida Mountain Site of ground stone with the types of vegetal foods they were likely designed to efficiently process is strong evidence for their purported function.

#### 4.1.4. Pottery production

Given the large assemblage of pottery from the limited excavation of the Florida Mountain Site, pottery was an important resource for the site occupants. While evidence for ceramic production, such as raw or prepared ceramic material or wasters, was not identified during the excavations, this may be the result

of sampling strategy. The possible production of pottery at the site would have involved considerable labor and travel time in order to procure and transport clay, water, and wood (the heaviest and bulkiest materials required for pottery production) to the site. So, it seems unlikely that production of pottery occurred at the site. However, all these materials are available a few kilometers away in the Florida Mountains, and it is possible that pottery production took place at logistical locations away from the site where access to the needed materials could be given. Alternatively, the pottery could have been transported from the home village of the occupants.

#### 4.2. Distribution

Distribution activities involve the movement of resources and products from producers to consumers such as through transportation of goods, trade, storage, preparation and cooking of foods, and consumption (Wilk and Netting, 1984: 9–11). These activities can be organized at various social scales, such as the generalized reciprocity that often occurs within households or the formalized exchange of goods and labor that occurs in market economies. The type of distribution present in a given social system is partially determined by that society's mode of production and subsistence base. Wilk and Rathje (1982) note that large households are an adaptation to social systems that produce a diverse array of items that are pooled for household consumption, while small households are adapted to situations where production is uniform and exchange for differing items helps to meet group demands. Again, we focus here on only a few of the many distribution activities that are evidenced at the Florida Mountain Site.

##### 4.2.1. Storage, preparation, cooking, and consumption of foods

In small-scale agricultural societies, such as the Mimbres, the economic base revolves around subsistence activities, particularly those related to foodstuff. So, it is not surprising that evidence of food distribution activities overlaps with the evidence of food production activities, particularly because these activities are often part of behavioral chains (LaMotta and Schiffer, 2001; Schiffer, 1975, 1976, 1987). For example, the presence of metates and manos provides indirect evidence for both production and distribution activities. These items are used to process cultigens or wild foods that have been gathered (the by-products of a production activity) for storage or use, and value is added to these foodstuffs by preparing them to be consumed, a distribution activity. Similarly, the burned bone that Schmidt (2002) identified in the analyzed material from the site also provides evidence for both production (hunting) and distribution (cooking and consumption) activities.

Drawing on Braun's (1980) functional analysis of pottery design, distributional activity can also be inferred from the pottery assemblage at the Florida Mountain Site. Bowls provide ease of access to their contents and are best suited to preparing and serving foodstuffs. Jars provide containment security and would be best suited for transportation and storage of items. As well, Jars are often used for cooking, another distribution activity. Distinguishing between bowls and jars could only be accomplished using rim sherds for the plainwares, which comprise about 95% of the assemblage. Jars are represented by 133 rim sherds and bowls by

55 rim sherds. If the proportion of jar to bowl rims is representative of the pottery assemblage in use at the site, plainware jars were twice as common as plainware bowls. The potential of more jars than bowls may indicate that the preparation and storage of foods and other goods, possibly for transport to pitstructure sites, was an important aspect of the site's function. In contrast, typical Mimbres site pottery assemblages contain more bowls than jars (Hegmon, 2002, p. 331). Again, Structure 8 stands apart from the other structures when considering the distribution of ceramics and ceramic rims. In comparison across the site, Structure 8 has the highest density of ceramics (Table 4) and contained the majority of the plain ware rims from the site with 26 bowl rims and 80 jars rims. Structure 5 had five bowl rims and six jar rims, while eight bowl rims and 21 jar rims were recovered from Structure 1.

#### 4.2.2. Trade/exchange

Considering the various materials recovered from Mimbres sites, Minnis (1985) identified a number of items that represent multiple scales of exchange or trade relationships. Specifically, he makes a distinction among materials that originate from outside the Southwest (extraregional), materials from other areas within the Southwest (interregional), or materials from non-local areas within the Mimbres region (intraregional). At the Florida Mountain Site, evidence for the occupants' participation in trade/exchange networks at all three scales is represented in the artifact assemblage. Extraregional exchange is represented by 14 marine shell artifacts that originate from either the Gulf of Mexico or the Pacific Ocean. Structure 8 contains almost all (10) of the recovered shell from the site.

The obsidian assemblage from the Florida Mountain Site consisted of 46 tools and flakes. Over half of these items originate from sources located at least 50 km away in northern Chihuahua (Shackley, 2004). Whether these are intraregional or interregional sources will depend on whether the currently undefined southern extent of Mimbres sites extends to these sources. For the obsidian not from northern Chihuahua, trade or exchange is most likely responsible for their presence at the Florida Mountain Site, given the low numbers from each source, the distances to the sources, and the presence of pitstructure communities within the intervening space to the sources. Thirty-seven of the forty-six obsidian items were recovered from the structures. Half of the obsidian at the site came from Structure 8, while Structure 1 and Structure 5 contained only four and ten pieces respectively.

#### 4.3. Transmission

According to Wilk and Netting (1984, pp. 11–14), transmission activities are those by which rights, privileges, property, and resources are transferred between generations and among group members. Given the intangible nature of many transmission activities, it is understandable that archeological means to investigate these activities are few. However, Earle's (2000) exploration of property rights in prehistory and McAnany's (1995) exploration of creating and claiming places through internment of ancestors represent productive avenues in this direction. In the Southwest, land tenure practices are one transmission activity that has received attention by archeologists (Adler, 1996; Ciolek-Torrello, 1998; Creel and Anyon, 2003; Lightfoot, 1994; Stokes, 2003; Varien, 1999). Land tenure encompasses the conceptualized and practiced rights and privileges that social entities (individuals, households, communities, etc.) use to claim and protect resources from others (Adler, 1996, pp. 336–338; Carrier, 1998; Hann, 1998, p. 7). Adler (1996, pp. 339–340) notes that variables affecting use rights include type of resource accessed, historical use of resource, and the resource's duration of use.

A number of factors imply that some form of land tenure accounts for the repeated occupation of the Florida Mountain Site during the Late Pithouse period. First, the site setting suggests that visibility was important. The location of the site, on the piedmont slope away from the reliable water and resources available a few kilometers away, would have been visible from much of the adjacent basin and would have commanded a view of the basin and Mahoney Park, a major drainage and access point to the resources of the mountain interior (Fig. 5). Occupants of the site would have been able to monitor access to area resources and to communicate this fact through the physical visibility of their architecture. Second, there are no known contemporaneous sites within a few kilometers of the Florida Mountain Site, supporting the inference that occupation of the site was in some way tied to the access and use rights to resources in the area around it. Third, the lack of evidence for defensive measures and small size of the population occupying the site imply that other groups would have recognized the use rights of the occupants. Finally, the presence of burials and architecture at the site may represent a way the occupants claimed a connection to place (Bartlett and McAnany, 2000; McAnany, 1995; Varien, 1999). While this may seem an odd proposition for a limited activity site, Varien (1999, p. 212) proposes that burials within abandoned Mesa Verde residences were used to symbolize historic claims to use rights and negotiate access to land not in constant use within a community.

In addition to possibly being involved in a group's land tenure claims to the site, the burials represent evidence for transmission activities practiced by the site's occupants in reference to the dead. The burial of a group member would entail both affording the dead with the appropriate ritual practices and the transmission of property, positions, and privileges of the deceased to living relatives and group members. The burials at the Florida Mountain Site are located in the space between structures. The placement of burials in the space between structures is common at contemporaneous pitstructure sites in the region (Haury, 1936; Shafer, 1999, p. 100, 2003), suggesting the existence of shared beliefs and practices regarding the treatment or rights of the dead within the region.

All of the potential transmission practices discussed above may have together lent to the regular reoccupation of the site due to what Kovacik (1999) refers to as collective memory. Through the process of investing in, creating, and inhabiting a place in which the social values of the group are represented and reinforced through the built environment, the group has created shared memories of place. Such memory provides sentiments of attachment and comfort as the place is known and is known to be an acceptable place to live a social life.

#### 4.4. Coresidence

Coresidence refers to the regular occupants of a common defined space such as a domestic room or structure (Wilk and Netting, 1984, pp. 17–19). As alluded to earlier, the regular occupants of a space can comprise a family, part of a family, multiple families, or some other social entity that may or may not share other functions, making the use of coresidence to define a social group problematic (Wilk and Rathje, 1982, p. 620). Further, Lightfoot (1994, pp. 150–151) notes problems with determining what activities define coresidence and whether evidence of probable coresidential activity such as sleeping can be identified. However, Lightfoot (1994, p. 120) provides a way forward in proposing that redundant patterning of activities across a site provides a means to infer the boundaries of basic social groups because co-resident groups would share similar needs and ways of meeting these needs.

Given the limited excavations at the Florida Mountain Site and dearth of preserved architecture or features, it is impossible to con-



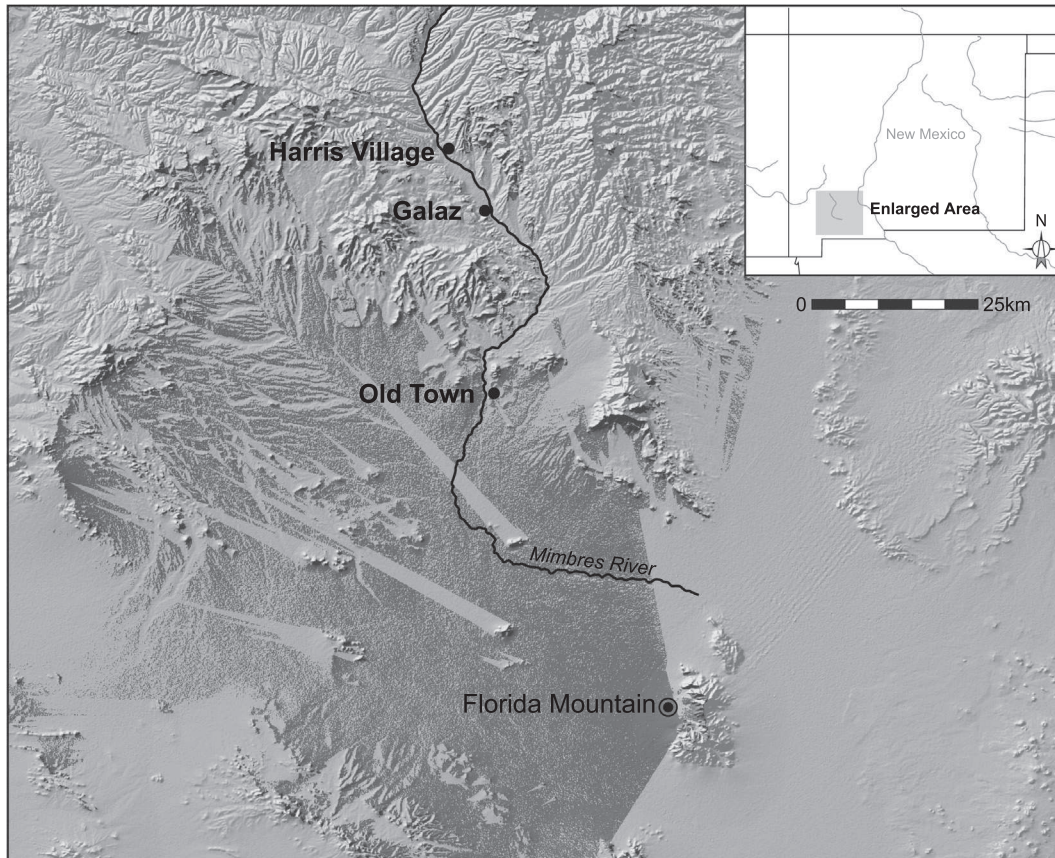


Fig. 5. Viewshed from Florida Mountain Site, which is represented by the dark shaded areas.

duct the detailed activity area analysis that Lightfoot (1994) used to identify coresidence patterns at the Duckfoot site. However, the site structure analysis for the Florida Mountain Site does provide a means to investigate the patterning of various activities across the site. In particular, the line of evidence developed above for production and distribution activities encompasses basic domestic activities related to the economy of the social groups occupying the site. Following Lightfoot (1994, pp. 150–151), redundant patterning of domestic activities across the site can be used to identify boundaries between the social groups that conducted them and, where these boundaries coincide with architectural space, coresidence is suggested.

While Structure 1, Structure 5, and Structure 8, all contain evidence for the most common domestic activities performed on the site (lithics, ceramics, ground stone, and faunal remains), the intensity of these activities differs considerably among them. The densities of artifacts in Structure 1 and Structure 5 are similar and can be considered redundant. In contrast, the artifact densities in Structure 8 are not similar to those in either of the other clusters. As noted regularly above, Structure 1 and Structure 5 exhibit a great deal more of the by-products (lithic flakes and debris, faunal remains) of production and distribution activities than Structure 8, which contains the majority of the tools of production and distribution (ceramics, formal lithic tools, ground stone) present on the site. In addition, Structure 8 also contains the preponderance of unusual items (quartz crystals), exotic items (shell and obsidian), and items with higher production costs (bifaces, stone bowls).

The differences in the scope and types of activities present among the structures can be accounted for if, as suggested earlier, Structure 1 and Structure 5 represent residential structures and Structure 8 represents a communal structure. The redundancy of

domestic activities present between Structure 1 and Structure 5 is consistent with expectations for residential use by a coresidential group. However, the question remains: why are domestic activities also represented, although less intensively, in Structure 8?

Adler's (1989) cross-cultural study of communal space found that communal structures used by segments of a community or small communities can exhibit domestic activities as or more frequently than ritual activity. So while Structure 8 exhibits domestic activity, other activities likely occurred that are either rare or may not have been practiced in the purported residential structures. This suggests that coresidence may not have been a function of Structure 8.

Although this analysis is preliminary as not all excavated loci have been analyzed and the excavations at the site were limited, the redundancy of domestic activities in Structures 1 and 5 suggests that similar coresidential groups occupied these structures. The range and scope of domestic activities in Structure 8 are considerably different. These differences, combined with evidence for activities not conducted in Structure 1 or 5 suggest that Structure 8 was not a residential structure. Rather, it served as a communal area where domestic activities common to Structures 1 and 5 occurred, but also where activities that met needs not served by the coresidential groups in domestic structures were conducted.

## 5. Discussion and conclusions

Artifactual evidence suggests that a number of practices necessary to meet the productive and distributive needs of a social group were conducted at the Florida Mountain Site. In fact, strong evi-



dence for production, distribution, transmission, and coresidence is present. While less certain, the presence of burials with associated goods may also indicate transmission activities. No direct evidence for reproduction was noted at the artifact level, but the homogeneously patterned deposits present within the separate occupations of the site could suggest some manner of social reproduction. These results suggest that the occupants of the Florida Mountain Site were more than a single gender specialized task group. Rather, the clear evidence for four of five social practices suggests that families, households, extended families, or some similar scale of social entity occupied the site.

Of those practices that were performed at the site, Structures 1 and 5 exhibited redundancy in activities related to production, distribution, and coresidence, indicating that coresidential groups inhabiting these structures participated in similar domestic activities. While domestic activities occurred in Structure 8, the differences in the scope and range of activities conducted suggest that this structure served as a common area for the social groups inhabiting the other structures and did not function primarily as a domestic residence. The storage of the tools of production and finished products in Structure 8 suggest activities that can be seen as complementary to the activities that occurred within Structures 1 and 5. That is, these activities met needs not served by the coresidential groups in domestic structures.

At the Duckfoot site, an Anasazi Pueblo I period (750–900 AD) habitation site in the Mesa Verde region (Fig. 1), Lightfoot (1994) argued that households occupied architectural suites that consisted of a pitstructure, plaza, and from one to three habitation rooms with accompanying storage rooms. While the occupants of a domestic room may have been a nuclear family, this did not constitute a household because the maximum overlap of social functions was determined to be the use group of the architectural suite. Lightfoot supported this argument by demonstrating the complementary nature of the activities that occurred in pitstructures to the activities that occurred in domestic rooms and their associated storage rooms.

At the Florida Mountain Site, the complementary nature of the activities that occurred in Structure 8 to those that occurred in Structures 1 and 5 are similar to patterns at the Duckfoot site. However, we do not propose that this justifies considering Structure 8 and contemporaneous residential structures a household. For the Duckfoot site specifically, and the northern Southwest in general, such a proposition seems reasonable because architectural suites are the basic redundant units of Pueblo I communities (Lightfoot, 1994). The basic architectural unit in the Mimbres region during the Late Pithouse period appears to be the residential pitstructure. While Late Pithouse period Mimbres sites typically contained communal structures, only one of which functioned at a time (Anyon, 1984:90), the number of residential pitstructures at these sites varies from one pitstructure to over 130 structures (Anyon, 1984, p. 30; Anyon and LeBlanc, 1984, p. 92). Assuming the potential exists for many contemporaneous residential pitstructures at larger sites, it seems unlikely that communal structures were part of households. Rather, the maximum overlap of social practices typically associated with households occurs in association with residential pitstructures, suggesting residential pitstructures were most likely occupied by households. However, our data suggest that many social practices commonly performed by households in other societies were conducted at levels of social organization above the household in Mimbres society, probably at the scale of the community.

Obviously, more research is necessary before a clear picture of household organization during the Mimbres Late Pithouse period will emerge. However, the evidence presented here for household practices at the Florida Mountain Site provides a productive framework within which future investigations into household organiza-

tion can be conducted, and specifically those that include intermittent occupation sites. Based on the results, we suggest that during the Late Pithouse period in the region, a household that met basic production, distribution, transmission, and coresidential practices for its members likely occupied each residential structure. Other functions to provide for the needs of the site occupants not met by the household were organized at higher levels of the social system (community, village, camp) that probably encompassed all contemporaneous households and is manifest in possible communal structures.

On a broader level, our work demonstrates the importance of considering intermittent occupation sites when investigating questions regarding group organization and social life. For societies, such as the Mimbres, where substantial permanent residential sites are the most visible and thus appear to be the most common type of site, intermittent occupation sites are often overlooked for insights into social organization. These sites, however, can provide valuable information on the centrality of the permanent village and importance of social groups within society. Our work suggests that household and community were important aspects of social life such that households moved together and recreated community institutions when exercising mobility to access resources remote from the permanent villages. However, we can expect that this condition is not universal and that such mobility in other societies may be done by individuals or specialized task groups whose membership could vary in gender, kinship relations, age set, etc. Thus, only through an investigation to assess the group that occupied a site similar to that performed here and that done by Lightfoot can such determination be made. While research dedicated to household studies has been well established, we believe that they are still fundamental to the archeological study of social organization.

## Acknowledgments

While the interpretation and analysis presented in this paper is solely those of the authors who bear all responsibility for any errors, the data and our inspiration derive from the Mimbres Foundation's pioneering efforts to understand the Mimbres cultural phenomenon. In particular, we credit Paul Minnis who realized the critical need for excavation data from non-village sites if a complete understanding of Mimbres was to be generated. He also provided valuable comments on an earlier draft of this paper. Other individuals whose input was important to the development of this paper are Pat Gilman, Bob Brooks, Barb Roth, Tom Holcomb, Darrel Creel, Roger Anyon, and Tim Kearns. We also express our thanks to the BLM Las Cruces district and the Office of Public Archaeology at Brigham Young University.

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