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ROOM USE AND COMMUNITY ORGANIZATION AT THE PETTIT SITE, WEST CENTRAL NEW MEXICO

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ABSTRACT

This article reports the results of excavation at the Pettit site (LA 59484), a 154-room pueblo near Ramah, New Mexico. The site dates to the late twelfth and early thirteenth centuries A.D. Excavation of 67 rooms provides information on architectural plan, room size, and artifact and feature distribution. A model of room use is outlined, and a brief interpretive sketch of community social organization is presented.

RESUMÉN

Este artículo presenta los resultados de la excavación llevada al cabo en el sitio de Pettit (LA 59484). Pettit es un sitio tipo pueblo cercano a Ramah, Nuevo México, que cuenta con 154 cuartos. El sitio fue ocupado durante finales del siglo XII y principios del siglo XIII d.c. La excavación de 67 cuartos, nos proporcionó información sobre el plan arquitectónico del sitio, las dimenciones de los cuartos y la distribución de los materiales arqueológicos. Se presenta un ezboso del uso de los cuartos y un breve estudio preliminar con la interpretación de la organización social de la comunidad.

A century of archaeological research in the Zuni area of west-central New Mexico has established a broad understanding of prehistoric cultural variation and change (Fewkes 1891; Spier 1917; Roberts 1932; Woodbury 1956; Watson and others 1980; Kintigh 1985; LeBlanc 1989). The challenge today is to fill in details of the area's prehistory, among them the nature of social organization during the period from A.D. 1150 to 1250 (Anyon and others 1983; LeBlanc 1989). This period recently has been characterized as a time of social instability and "reorganization" in the area (Stuart and Gauthier 1984; Anyon and others 1983; LeBlanc 1989), as it has for the Southwest in general (Cordell and Gumerman 1989). Our understanding of this period in Zuni prehistory is sketchy, as excavated sites are relatively few (but see Zier 1976; Watson and others 1980).

This article contributes to further understanding by reporting previously unpublished excavation data from the Pettit site (LA 59484), a pueblo of at least 154 rooms located in Togeye Canyon, 5.3 km southeast of Ramah (Figure 1). The Pettit site has been dated to the period A.D. 1190 to 1250 (Linthicum 1980; Kintigh 1985). Sixty-seven rooms at the site were excavated over four seasons (1972-1974, 1976) by Wake Forest University, and by the University of Denver in the summer of 1990. Excavated material presently is being stored and analyzed at the University of Denver.

The purpose of this article is both descriptive and inferential. Excavation data

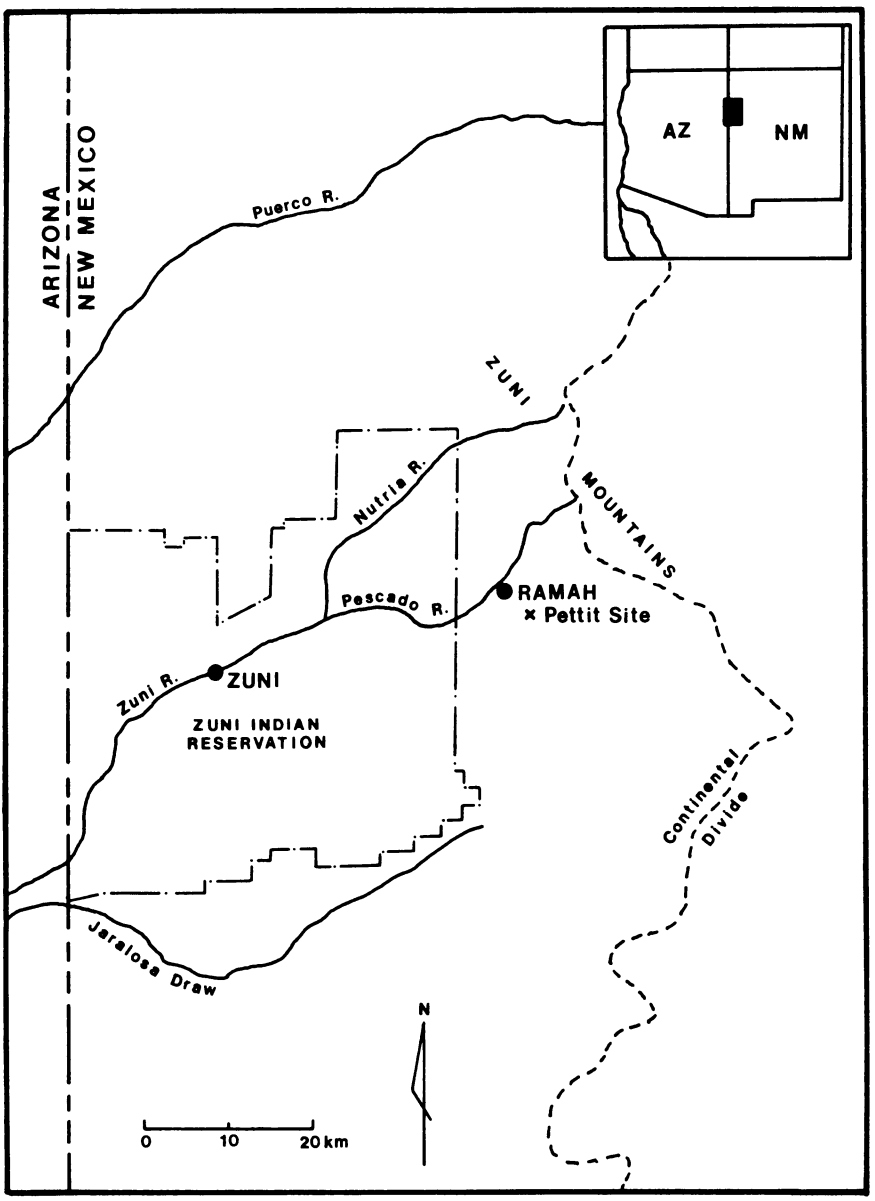

Figure 1. Location of the Pettit site.

most frequently reported in the Southwestern literature are summarized so as to convey a sense of internal site structure. A model of room use is outlined, along with a working model of community social organization. These models indicate current research directions as concerns social dynamics during the reorganization period in west-central New Mexico.

ENVIRONMENTAL SETTING

The Pettit site occupies the top and base of an elongated, T-shaped sandstone mesa. The mesa rises 30 m above the canyon floor at a point where Togeye Canyon opens east onto the El Morro Valley. The elevation of the site is 2,185 m above sea level (7,100 feet).

The geology of the area is described by Hackman and Olson (1977). The mesa on which the site is located consists of Cow Springs and Entrada sandstones of upper Jurassic age. Higher surrounding mesas consist of Dakota Sandstone of upper and lower Cretaceous age. Slopes and mesa tops are covered with shallow, rocky soils. The floor of Togeye Canyon possesses undifferentiated alluvial deposits. An intermittent drainage runs through the canyon today, and there are no springs in the canyon. The canyon is primarily watered by runoff from the Zuni Mountains to the east, and drains west into the Pescado River.

Togeye Canyon is within the Upper Sonoran Life Zone as defined by Lowe (1964; see also Kintigh 1985). Vegetation consists of piñon and juniper trees, which dominate the tops and slopes of mesas, and Plains grassland and desert scrub vegetation (sagebrush, rabbit brush), which abound on the canyon floor. A range of faunal resources can be found in Togeye Canyon, including antelope, white-tailed deer, coyote, jackrabbit, cottontail, and a variety of small rodents.

The area has a semiarid climate with seasonal rains subject to considerable variation (Kintigh 1985). Within any given year there may be localized but dramatic differences in rainfall patterns. Like rainfall, the growing season is also subject to considerable annual and local variation. The canyon's soils are generally poor, and only moderately productive when irrigated. They require an above-average amount of management to produce high agricultural yields (Kintigh 1985).

DATING OF THE PETTIT SITE

Dating of the Pettit site rests exclusively on ceramic associations. No wood samples suitable for dendrochronological dating have been recovered. The vast majority of ceramic wares at the site — 90 percent — are St. Johns types. Table 1 reports the frequency occurrence of different ceramic types at the site. These figures are based on a study of painted sherds from 136 vessels on 25 room floors conducted by Linthicum (1980), and an identical study of painted sherds from 9 vessels on an additional 6 room floors conducted by Harris (n.d).

Using date ranges for these ceramic types established by Carlson (1970) and

Table 1. Ceramic Types at the Pettit Site (after Linthicum 1980 and Harris n.d.).

Ceramic Type	Percentage of Vessels	Date Ranges (A.D.)	Reference
St. John's Polychrome	76	1175–1300	Carlson 1970
St. John's Black-on-red	14	1137–1385	Breternitz 1966
Tularosa Black-on-white	3	1100–1200	Martin and Willis 1940
Reserve Black-on-white	3	950–1150	Martin and Willis 1940
Wingate Black-on-red	3	1050–1200	Carlson 1970
Springerville Polychrome	1	1250–1300	Carlson 1970

Martin and Willis (1940), Linthicum (1980) argues for an A.D. 1190 to 1240 dating of the site. Kintigh (1985) takes the ceramic types to suggest an occupation between A.D. 1225 and 1250. These typological approaches to ceramic analysis are open to criticism (e.g., S. Plog 1978; Upham 1988). Although problems in Zuni area chronology are unresolved (Anyon and others 1983), the convergence between Linthicum's and Kintigh's dating of the ceramic assemblage is taken here as indicating an A.D. 1190 to 1250 occupation of the site.

ARCHITECTURAL PLAN AND THE SEQUENCE OF SETTLEMENT CONSTRUCTION

Based on extensive wall tracing, the Pettit site appears to have consisted of at least 154 rooms. These rooms are distributed in a "clustered" arrangement of room blocks, or features, as they were described by the original excavators (Figure 2).

With the exception of feature 16, all room blocks are inferred to have been one story in height. The 20 definable rooms in feature 16 have unusually high walls, and contain abundant building rubble and many finished artifacts (e.g., axes, manos) in their fill. These observations suggest that feature 16 was a two-story room block, a notion supported by room-use assignments (see below). The second story of a suspected multistory room block is estimated here to contain half as many ground floor rooms (after Kintigh 1985:22-23). This would make for a total of 30 rooms in feature 16.

Linthicum (1980) has considered the problem of site construction. She used wall bonding and abutment patterns, ceramic associations, and a factor analysis of wall masonry attributes (e.g., length and width of largest and smallest stones, shape of stone, type of stone, and technique of stone preparation) in mesa-top rooms and rooms in feature 16 to discern sets of walls built at the same time. Linthicum concludes that room construction occurred on the top and at the base of the mesa simultaneously.

Rooms built at roughly the same time, what Linthicum refers to as "construction units," are bracketed in Figure 3. Linthicum suggests that the entire settlement was built over a fairly short period of time (several decades), and she treats

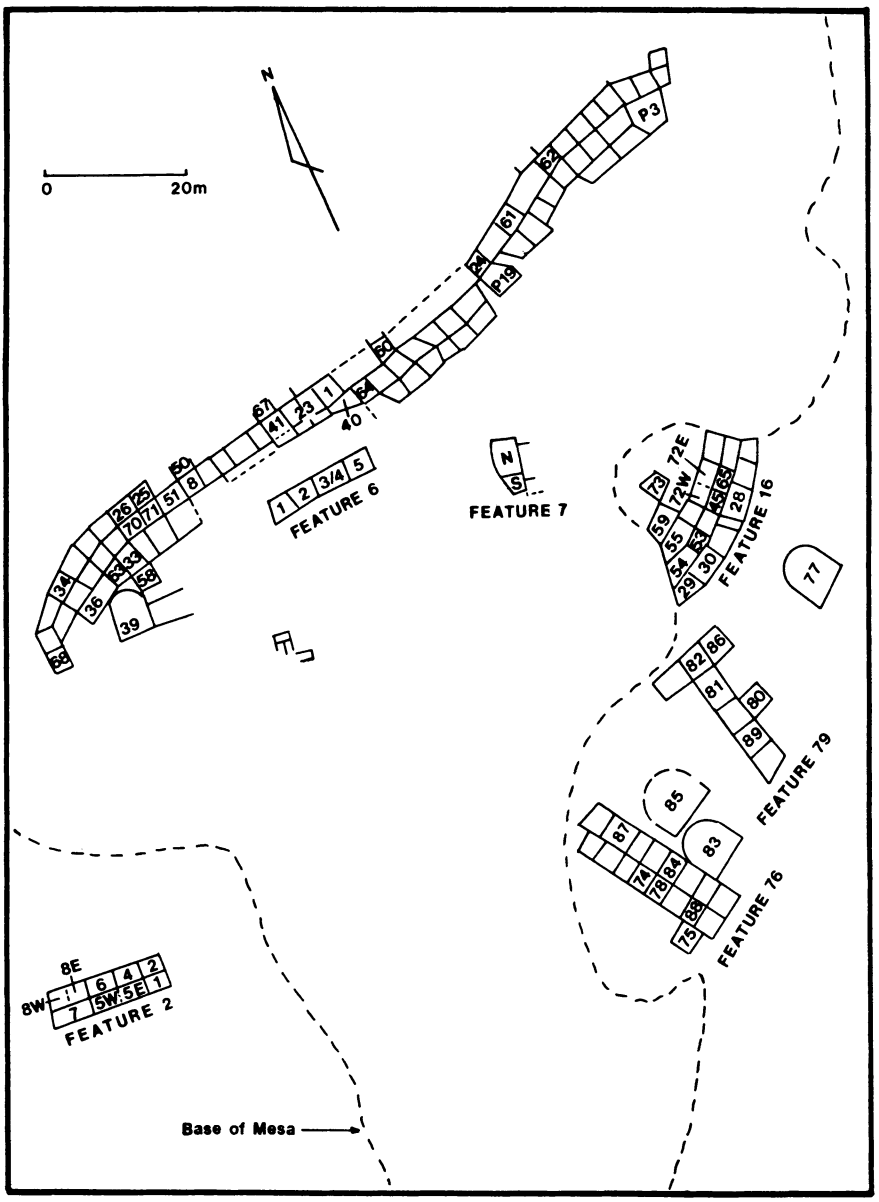

Figure 2. Features and excavated rooms at the Pettit site.

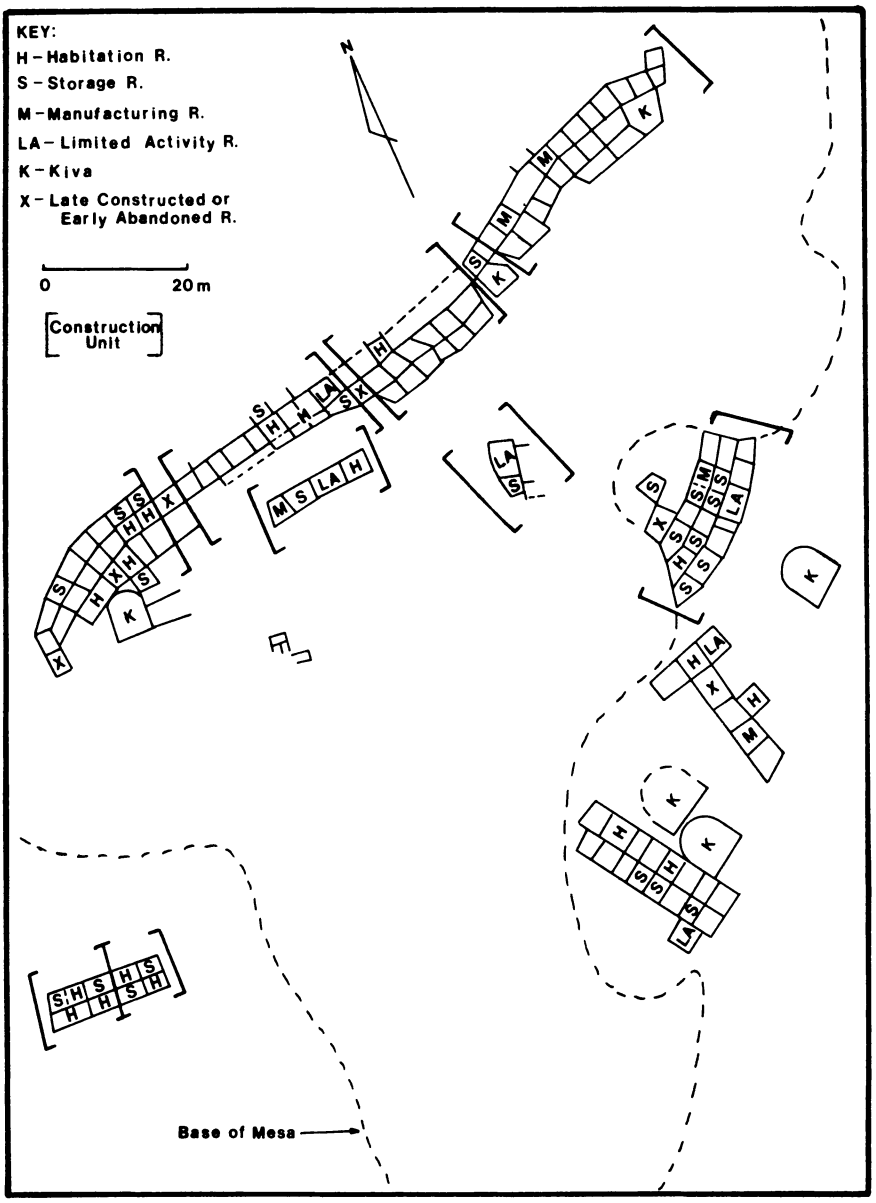

Figure 3. Construction units and room use at the Pettit site.

her construction units as contemporaneous. This reconstruction agrees with the pattern of site growth and occupation described by Watson and others (1980) for Scribe S phase (A.D. 1250-1275) communities in the El Morro Valley.

EXCAVATION METHODS

At the outset of archaeological fieldwork at the Pettit site only the mesa-top features plus features 2 and 16 were visible on the ground surface. In 1972, effort was invested toward defining the spatial extent of all the mesa-top room blocks, excavating a sample of rooms contained therein, and testing (via-1 m by 4-m trenches) areas in and around features 2 and 16 in search of buried rooms, kivas, and middens. In 1973 and 1974, excavation continued in these room blocks. In 1976, testing and wall tracing south of feature 16 revealed features 76 and 79, and a large kiva (room 77). The large kiva and several other rooms were excavated at that time. In 1990 excavation continued in features 76 and 79.

For excavation purposes, each feature was considered a separate sampling unit, and within these units rooms were selected for excavation at random. Because of their relatively small size, features 2, 6, and 7 were excavated completely. This random sampling design was adhered to throughout the four years of Wake Forest University fieldwork at the site. In 1990, rooms 86, 87, 88, and 89 were chosen nonrandomly, on the basis of their having better surface definition than other rooms.

Excavation of rooms was initiated with a test pit in one corner as a means to locate the floor. Excavation then proceeded in arbitrary levels by quadrant, or halves in the case of small rooms. All room fill was screened through ¼-inch mesh. Building rubble was removed as a single unit of varying thickness. Once below the rubble, fill was removed in 10 cm or 15 cm levels down to a level 10 cm above the room floor. This final 10-cm level was then removed as a unit, and constitutes the "analytical floor" (DeGarmo 1975:86) used below to infer room use.

ROOM USE AT THE PETTIT SITE

The understanding of Anasazi lifeways depends in large part on inferences about room use. A number of schemes have been devised for classifying Anasazi rooms by function (Hill 1970; Dean 1970; Rohn 1971; Adams 1983; Ciolek-Torrello 1985). It has recently been recognized that the Anasazi area is characterized by considerable architectural variation area across space and through time (DeGarmo 1976; Ciolek-Torrello 1985; Lipe and Hegmon 1989). This variation often complicates the application of any single room-use typology. Accordingly, an open-ended, inductive approach is adopted here. Recurrent qualitative patterns in the data govern the definition of room types. It is assumed that these patterns reveal general trends in the organization of activities at the settlement (Jorgenson 1975:160).

The Pettit site room-use typology is based upon room size, the presence or absence of architectural features such as hearths and bins, and an inventory of artifacts from room-floor contexts. Room-floor assemblages are judged to be comparable, given broad uniformity in floor fill contexts. Floor fills are uniformly composed of washed and windblown sand, except where noted.

Examination of the Pettit site material has led to the recognition of five room-use categories. This typology includes the traditional habitation room-storage room-kiva triumvirate, plus categories of "manufacturing" and "limited-activity" rooms. My definition of the latter rooms follows, in spirit, the lead of Ciolek-Torrello (1985). Information on the number, average size, artifact content, and distribution of each kind of room is presented in Tables 2, 3, 4, and 5, and Figure 3.

Habitation Rooms

All habitation rooms at the Pettit site contain some combination of the elements traditionally associated with habitation rooms. These elements include at least one hearth located along a wall, an ash or "roasting pit" (Zier 1976:25), bin, miscellaneous utilitarian artifacts including grinding stones, flaked tools and retouched pieces, and pottery, and wall features such as doors and niches. Habitation room floors at the Pettit site are variable, consisting of clay-prepared, flagstone, chipped bedrock, and use-compacted surfaces.

Some artifactual and architectural variation is evident within the category of habitation rooms. Room 33 has significantly more lithic material than other habitation rooms (Table 5), with a full range of reduction debris from primary flakes to thinning flakes. This suggests that the room served a greater range of productive activities. Borrowing from Ciolek-Torrello (1985), this room is perhaps exemplary of a "multifunctional" habitation room. The same conceivably holds for rooms 23, 82, and 87, all of which contain relatively greater amounts of debitage along with hammerstones, cores, and retouched pieces (Table 5). Some habitation rooms contain storage spaces within the same set of masonry walls, with the two areas separated by either perishable "screens" (suggested by post footings on the floor in rooms 2-5 and 2-8), or with masonry (rooms 23, 41). One room in feature 2 (room 2-7) contains three hearths, which is unusual for habitation rooms at the site.

Habitation rooms were excavated in every feature at the Pettit site, except for feature 7. The presence in feature 7 of wall stubs projecting to the east along with some associated domestic debris may, however, suggest the remains of a habitation room that has eroded away down the sides of the mesa.

Storage Rooms

Storage rooms at the Pettit site lack the range of interior features characteristic of other types of rooms (e.g., hearths, bins, pits). Storage room floors vary from

very well-prepared (clay-sealed) to very poorly defined. Although storage rooms contain a variety of lithic and ceramic debris, cultural material does not exist in amounts to suggest anything other than a generalized storage function.

Storage rooms occur in roughly equal proportion to habitation rooms in the Pettit site sample. Storage rooms are, however, likely overrepresented in the total sample given the suspected two-story nature of Feature 16. The vast majority of definable rooms in this feature suggest a storage function, which is expected of ground floor rooms in a multistory pueblo (Adams 1983).

As with habitation rooms, functional variation within this room type conceivably exists. For example, room 26 displays sealed doorways and a well-sealed clay floor, which may suggest its use as a granary (Dean 1970). The same holds for room 88, minus the sealed doorways.

The distribution of storage rooms is what one would expect of this room type. Storage rooms are located adjacent to either habitation rooms or kivas, if not connected to these rooms via doorways. Of particular note is the patterned placement of storage rooms along the back (i.e., most northerly) row of rooms on the mesa top (Figure 3). This pattern of storage rooms fronted by habitation rooms is in keeping with the usual Anasazi pattern.

Manufacturing Rooms

The category of manufacturing room is the most problematic one established for the Pettit site, and some of the rooms in this category are open to alternative classification. As defined here, manufacturing rooms are distinguished by their very uniform size (clustering tightly around 5.72 square meters in area), and relatively greater amounts of unworked raw materials, finished tools, or tool-making debris.

Loci of ceramic and stone- and bone-tool manufacture, as well as perhaps basketmaking activities, are suggested within the sample of manufacturing rooms. Rooms 61, 62, and 72-E display evidence of pottery or basketmaking. Their artifact inventories contain such items as unfired clay, worked sherds, yellow ochre, polishing stones, and bone awls. The bone awls recovered from these three rooms may relate to the manufacture of basketry trays for use in molding ceramic pots (Hill 1985). The worked bases of ceramic vessels are also present, and may have served a similar function. Rooms 61 and 62 contain multiple polishing stones (n=7 and n=4, respectively), in contrast to the odd one or two found infrequently on other room floors. A unifacially worked chert scraper, fitting the description of "pot scrapers" reported by Wylie (1975) was recovered from the floor of room 72-W, a storage area associated with room 72-E.

Functional classification is less secure where rooms 6-1 and 89 are concerned. Room 89 is identified as a lithic workshop, based on the presence of a relatively greater amount of lithic debitage including a full range of reduction

Table 2. Room Architectural Features, Pettit Site.

Room Number	Room Area	Hearth Size (cm^2)	Bin	Pit	Door
Habitation					
2-1	5.94	2,375			
2-4	6.60	2,375	2		S
					W
					E
2-5W	6.85	2,500			
		2,500			
2-7	11.33	2,000			E (sealed)
		2,000			
		3,900			
2-8E	5.83	1,418			
6-5	7.95	2,800			
8	6.42	1,590			N
					S
23	13.58	3,179			W
		1,413			
33	5.79	1,392		1	W
36	11.06	3,250			E (sealed)
41	7.17	1,963			E
50	5.46	2,512	1		S
54	8.68	2,164	1		E (sealed)
60	4.48	1,963			
70	5.63	1,600			S
71	5.57	829		1	N (sealed)
80	8.01	2,750	1		
82	9.15	1,600		2	
84	5.89	1,963			E (sealed)
87	6.56	1,256		1	W
Storage					
2-2	5.30				W
2-5E	6.93				N
2-6	5.78				E
2-8W	5.20				
6-2	6.71				
7-S	5.88				
24	3.77				S
25	5.45				W (sealed)
					S (sealed)
26	4.54				E (sealed)
29	9.25				
30	10.03				
34	5.78				
40	5.88				

Table 2. Room Architectural Features, Pettit Site.

Room Number	Room Area	Hearth Size (cm^2)	Bin	Pit	Door
Habitation					
45	5.26				W (sealed)
53	4.03				N
					W (sealed)
					E
55	9.67				E (sealed)
					S
58	3.74				
65	4.48				
67	5.84				
72-W	5.75				W
73	5.42				
74	3.68				N
					S (sealed)
					E
78	5.05			1	N (sealed)
88	3.96				
Manufacturing					
6-1	5.67				
61	5.72				S
62	5.72	1,125			N
72-E	5.75	3,025			
89	5.75				
Limited-Activity					
1	7.85	2,123	1		
6¾	9.35	2,200			
7-N	10.99	1,963			
28	10.01	2,826		2	E
75	10.65	1,963			
86	8.13	2,296			
Kiva					
39	19.48	1,963			
77	28.19	3,600		1	
83	18.27	1,750			
85	20.00	?			
P-3	15.75	3,300			
P-19	13.69	?			

Table 3. Mean Room Size at the Pettit Site.

Room Type	Number	Size (m_2)	Standard Deviation
Storage	24	5.72	1.80
Manufacturing	5	5.72	0.03
Habitation	20	7.40	2.40
Limited-Activity	6	9.50	1.30
Kiva	6	19.23	4.99

Table 4. Inventory of Floor Fill Artifacts, Pettit Site.

Room Number	Manos	Metates	Mauls	Axes	Awls	Ceramic Vessels
Habitation						
2-1						2
2-4						1
2-5W	1				1	1
2-7	2	1			4	4
2-8E	1				1	
6-5					1	3
8						
23	3				3	2
33	1		1	2		1
36	2					
41			1	1		
50			1			1
54						
60						
70	2	1	1			3
71	2			1	1	
80						1
82	1				2	2
84					3	1
87	1		1		1	1
Storage						
2-2	1					1
2-5E						2
2-6	1				1	
2-8W	1				2	1
6-2					1	
7-S			1	2	1	
24					1	
25					2	1
26						1
29	2			1		
30	1					

Table 4. Inventory of Floor Fill Artifacts, Pettit Site.

Room Number	Manos	Metates	Mauls	Axes	Awls	Ceramic Vessels
Habitation						
34						
40						
45		1				1
53						1
55	2	1	1	5	2	
58						1
65						
67						2
72-W		1	1		1	1
73						
74						1
78					1	2
88						
Manufacturing						
6-1					5	
61					2	1
62					4	1
72-E		1			5	1
89						
Limited-Activity						
1	1		1			1
6¾						
7-N			2	1		
28					1	4
75						
86			1		1	3
Kiva						
39				1		1
77						
83						
85						
P-3						
P-19						

Table 5. Inventory of Floor Fill Lithic Material, Pettit Site.

Room	Hammer-stones	Battered Cobbles	Cores	Projectile Points	Scrapers	Bifaces	Retouched Pieces	Debitage
Habitation								
2-1							1	2
2-4			1					3
2-5W	3	1					2	14
2-7	1		1	1			3	21
2-8E	1						1	6
6-5							1	6
8							1	1
23		1	1	1			1	44
33		1	2	1	1		2	82
36		2		2			1	22
41				1			1	5
50				2			1	5
54							1	3
60							1	2
70	1		2				6	22
71	1	3						25
80		1				1		14
82		1	1				5	29
84	1		1	1				2
87	4		1				1	43
Storage								
2-2								1
2-5E	2						2	12
2-6				1			1	9
2-8W		1	1	1		1		4
6-2								
7-S			1				2	23
24								13
25		1						9
26								1
29		3	1				4	3
30		1			2	1		4
34								1
40		2			1			6
45				2				1
53								
55								2
58								1
65							1	2
67								1
72-W					1			2
73								8
74								6
78								3
88		1					1	13

Table 5. Inventory of Floor Fill Lithic Material, Pettit Site.

Room	Hammer-stones	Battered Cobbles	Cores	Projectile Points	Scrapers	Bifaces	Retouched Pieces	Debitage
Manufacturing								
6-1			2				4	8
61		1					2	8
62			1				2	4
72-E							1	16
89	1	2						51
Limited Activity								
1		1		1				2
6¾								
7-N	1	1	6				7	179
28			1			1	3	14
75	1						2	5
86	2	2	1			1		68
Kiva								
39							1	11
77								50
83			1				1	53
85								
P-3								
P-19								

debris. Room 6-1 contains five bone awls and an unusual amount of bone debris, and may represent a specialized bone tool manufacturing area. Bone awls are one of the more common finished tool types at the Pettit site, occurring in all of the manufacturing rooms except for room 89, as well as in a large number of non-manufacturing rooms.

The distribution of manufacturing rooms is fairly uniform across the Pettit site. A manufacturing room of some kind has been excavated in four of the seven features at the Pettit site. The potential significance of this distribution is discussed later in the article.

Limited-Activity Rooms

Limited-activity rooms are distinguished on the basis of size and the arrangement of internal architectural features. These rooms are larger on average than habitation rooms but smaller than kivas, averaging 9.50 square meters in size. Limited-activity rooms are found in six of the seven features excavated at the Pettit site.

All limited-activity rooms contain centralized hearths. Some also contain kiva features. Those with kiva features display deflectors, ventilators, and benches (rooms 1, 6-3/4, and 7-N). Room 75 has a bench and a flagstone floor.

The artifact assemblages in limited-activity rooms are generally sparse, consisting mostly of sherds and smaller quantities of lithic debris. Rooms 7-N and 86 are exceptions,however, containing as they do greater amounts of lithic debris and, in the case of 7-N, numerous cores. This indicates that in at least these two instances the function of limited-activity rooms overlaps with that of manufacturing rooms.

On balance, however, limited-activity rooms are here considered to be primarily loci of socioceremonial activities, a notion that explains my borrowing of the term from Ciolek-Torrello (1985:5355). These socioceremonial activities may have been specific to distinct social groups living at the site. That is, limited-activity rooms may be analogous to the "clan houses" reported in Pueblo historiography (Eggan 1950; see also Watson and others 1980:207). Another way to describe these rooms would be as "corporate kivas," to distinguish them from larger "community kivas" (Wilshusen 1989:103). Corporate kivas serve to integrate a distinct residential or social group, community kivas a larger social entity. The apparent distribution of one limited-activity room per construction unit at the site would seem to strengthen this interpretation.

Kivas

Four kivas were excavated at the Pettit site (units 39, 77, 83, and 85). Two additional rooms that are classifiable as kivas were excavated and recorded by Mr. Gordon Pettit (units P-3 and P-19), bringing the total kiva count to six. It is assumed that all the kivas at the site have been excavated, as thorough wall tracing and mesa-base test excavations in areas where kivas might be expected (e.g., south of feature 2) revealed no additional structures.

All kivas at the Pettit site are D-shaped, or approximate a D shape. Linthicum (1980) finds that the masonry of mesa-top kivas differs from that of mesa-top construction units. She thus speculates that several different social groups cooperated in mesa-top kiva construction.

Three of the kivas excavated by Wake Forest University (units 39, 77, and 83) contain the usual set of architectural features including bench, firepit, altar, and deflector. The unit 77 kiva is the most impressive, being very well constructed and evidencing very heavy use. This is reflected by the presence of three superimposed hearths, the last being a large slab-lined affair. These three kivas also possess flagstone floors.

The unit 85 kiva was only partially excavated. Several test trenches revealed an earthen north wall and earthen benches on the west and south sides, and a slab floor at the south end. This kiva may have been built relatively late in the occupation of Feature 76, a possibility strengthened by the existence of a sealed doorway

(unconnected to units 83 and 85) in the east wall of room 84. The unit 85 kiva also may have been unfinished.

Artifact inventories from the kivas mostly contain sherds but also some lithic debitage. Lithics are relatively numerous in units 77 and 83, the latter assemblage distinguished by a full range of reduction debris.

Human burials, all excavated in the 1970s, are present in two of the kivas. Two burials were excavated in the unit 85 kiva: a juvenile on top of the west bench, and a child on top of the east bench beneath a sandstone slab. Two burials also were excavated in the unit 77 kiva: one on the floor in the southwest corner, the other inside the ventilator shaft at the south end. The latter burial (a young adult male) was enclosed by rocks inserted into the ventilator shaft from inside the kiva, and lowered down into it from outside. This burial was associated with a complete St. Johns Black-on-red bowl that had been placed near the subject's face.

The six kivas that exist at the Pettit site are divided evenly between the mesa-top and mesa-base room blocks. Two of the mesa-top kivas (units 39 and P-19) are in positions where they can serve more than one architecturally distinct construction unit. At the mesa base, the unit 77 kiva is in a position to serve the occupants of features 16 and 79. The two remaining kivas (units 83 and 85) are located adjacent to each other to the east of feature 76, with the larger and perhaps unfinished unit 85 kiva possibly meant to supercede the unit 83 kiva as a locus of social activity.

Miscellaneous Rooms

Several rooms within the excavated sample are not readily classifiable into any of the above categories due to the presence of mixed cultural materials or, alternatively, to the virtual absence of cultural deposits. These rooms include units 51, 59, 63, 64, 68 and 81. These rooms are taken as representing early-abandoned, late-constructed, or unused rooms.

Rooms 51, 59, 63, and 64 appear to be early-abandoned rooms, perhaps serving briefly as storage units before being turned into trash dumps. These units possess none of the features typical of habitation rooms, and have abundant fill debris. Room 59 also contains a human burial in its upper fill. Fill-density analysis along the lines suggested by Schiffer (1987:323-338) would be one way to establish the fact of early abandonment more securely. Rooms 51 and 64 are notable in that each room is located precisely on the boundary between contiguous architectural construction units as defined by Linthicum (1980). Room 64 is particularly intriguing in this regard. It displays sealed doorways in the east and west walls, and contains a turkey burial in its upper fill. The latter phenomenon has been observed to occur in a ceremonial context in other places (Ciolek-Torrello 1985). Room 51 contains, on its floor, a sandstone slab containing a kokopelli glyph, along with several polished turkey phalanges. These are unusual finds in the broader context of the site. Granting an "ideotechnic" (Binford 1962) function for

these objects, it may be that these rooms were used in some way by adjacent social groups to help reinforce a social boundary between them.

The remaining two rooms that pose problems for the room-use typology appear to be units that were never actually used by Pettit site inhabitants. Room 68 is located at the extreme western edge of the mesa top. Cultural material was virtually nonexistent in this room, and the imprints of fallen roof material are abundant on its floor. This room's roof appears to have collapsed shortly after construction, with no subsequent occupation. Room 81 at the mesa base appears to represent a space that, although defined by four masonry walls, was never utilized. The floor-fill level here contains a scatter of miscellaneous debris that lacks a clear pattern, and continues underneath the north wall of the room. Thus, it is possible that units 81 and 82 at one time formed a single large room that was later partitioned into a habitation room (82), in the process creating a "dead" space (room 81) that was never utilized, except perhaps for trash disposal.

DISCUSSION

Analysis of the Pettit site data is ongoing, as is excavation of the site. Some of the empirical patterns reported here have been elaborated and reinterpreted since their initial presentation in a doctoral dissertation (Saitta 1987). Continuing refinements in the analyses are anticipated. In closing, a model of community organization and dynamics for use in structuring further analysis can be sketched.

This interpretive model builds on the recent characterizations of the Pueblo III period in west-central New Mexico as a time of social instability and reorganization. Anyon and Ferguson (1983) argue that social and environmental conditions in the Zuni area at this time stimulated experimentation with different organizational forms. Such experimentation might be expected given the environmental changes, population movements, and reconfigurations of trade and interaction patterns that others have documented for this time period (Stuart and Gauthier 1984; LeBlanc 1989; Cordell and Gumerman 1989).

The specific model advanced for interpreting the Pettit site is that of a complex communal society. The model dovetails with traditional interpretations in seeing a settlement organized in the main on communal principles, but it departs in recognizing a core of slightly more complex social relations. Specifically, the model allows for the specialized production and subsequent regulated distribution of strategic resources, as well as a measure of political hierarchy. These ideas are not accomodated by traditional models of "tribal" society, which assume the functional equivalence of tribal social segments, and the existence of nonhierarchical decision making (Sahlins 1968; Kintigh 1985).

Specialized production at the Pettit site conceivably is indicated by the differential distribution of various manufacturing activities (for ceramics, baskets, and stone and bone tools) across construction units, activities not exclusively limited to manufacturing rooms (e.g., note the heavy concentration of lithic debris in

room 7N). The possible existence of individual craft specialization among the prehistoric Pueblos has often been remarked upon (e.g., Ambler 1983). Although it is more problematic to make a claim for specialization of production at the level of subcommunity social groups, at present the Pettit site data do not preclude the possibility. Certainly, part of the challenge in demonstrating such specialization is to show that ceramic, stone, or bone items produced in one construction unit were distributed to, and consumed in, the others (DeGarmo 1976).

Demonstrating the existence of communal redistribution and political hierarchy (the latter conceivably charged with regulating redistribution activity) is equally difficult, but available data provide something of a warrant for exploring the possibilities. The existence of both may be reflected by high per capita amounts of kiva and storage space at the site, on assumptions that the amount of kiva space reflects the social importance of, and degree of public participation in, communal redistribution (F. Plog 1974:122-127), and that the amount of storage space reflects the intensity of social demands for "surplus" production (Bender 1985: 52-54), in this case for the support of communal political functionaries.

The relevant data are presented in Table 6. This information was generated in accordance with procedures outlined by Lightfoot (1984:95) and Hantman (1989:435443). Per capita storage volume at the Pettit site is much higher than volumes determined for comparably sized and dated sites in the nearby Little Colorado area. This high volume conceivably reflects storage to support a political hierarchy; that is, it represents a social "fund" (Wolf 1966) for meeting the costs of communal administrative overhead. The per capita kiva space measures are harder to interpret, but the variation may reflect differences in the degree of direct public involvement in communal redistribution events. In any case, both Pettit site measures are notably higher than those for Broken K Pueblo, which recently has been interpreted as a center of political power and surplus mobilization in a complex social network (Lightfoot 1984:89-110). The possible existence at the Pettit site of political hierarchy in the service of communal redistribution draws further support from Linthicum's (1980) study of kiva masonry, which suggests inter-group cooperation in kiva construction, and from the existence of the unique, energy-intensive, unit 77 ventilator shaft burial.

It should be emphasized, however, that the exact kind of social differentiation envisioned at the Pettit site is unlike that proposed by others for late Pueblo times (e.g., Upham 1982; Lightfoot 1984). Access to storage facilities at the Pettit site does not appear to have been monopolized by a few households, and there seems to be no direct evidence in Togeye Canyon for noncommunal forms of productive activity. Thus, the existence of coercive power or political domination — of the kind that generates class stratification and inevitable economic intensification — seems very unlikely (Saitta and Keene 1990).

This notion is strengthened by evidence suggesting that community life at the Pettit site involved social subgroup autonomy as much as economic interdepen-

Table 6. Use of Space at Anasazi Sites (derived from Lightfoot 1984:95 and Hantman 1989:439).

Site	Number of Rooms	Excavated Habitation Area (m^2)	Excavated Storage Volume (m^3)	Excavated Kiva Area (m^2)	Per Capita Storage Volume (m^3)	Per Capita Kiva Space (m^2)
Rim Valley	20	83.71	20.55	0.00	1.4	0.00
Coyote Creek	30	166.00	63.00	?	2.3	?
Broken K	99	264.51	174.40	34.80	4.0	0.77
Joint Site	36	138.37	105.00	38.50	4.6	1.67
Pettit Site	154	148.00	205.92	115.38	8.4[a]	4.68[b]

a. This figure is inflated by the disproportionate sampling of ground floor storage rooms in the suspected two-story Feature 16 room block. A preponderance of storage rooms appears to characterize the ground floors of multi-story pueblos (Adams 1983). The revised per capita storage volume figure when this likelihood is taken into account is 6.7 m^3.

b. This figure is distorted by the fact that 100 percent of the kivas have been excavated at the Pettit Site, in contrast to the other room types. The revised per capita kiva space figure when this situation is taken into account is 1.80 m^2.

dence and a measure of hierarchical decision making. The existence of limited-activity rooms — if indeed used as "clan houses" or "corporate kivas" — implies a certain emphasis on subgroup integrity and solidarity in at least some walks of social life. Further, the possible functioning of rooms 51 and 64 in processes of social boundary maintenance may hint at constraints on, and active resistance to, the development of deeper ties of political integration. Finally, the patterning of open and sealed doorways at the Pettit site suggests sharply regulated access into and out of domestic spaces (Saitta 1988). This linearity may relate to household and lineage attempts to maintain control over social labor under conditions of labor scarcity (Hodder 1984). Zier (1976:25) also comments on the lack of exterior and interior doorways at large sites along Nutria Road, which date to the same general time period as Pettit. Although we cannot rule out roof tops as loci of intense interaction among pueblo dwellers, such intensity is not guaranteed and the patterning of open and sealed doorways may be communicating something significant about constraints on social interaction at Anasazi sites. Controlled access into and through the Pettit site might be expected given the presumed different backgrounds and traditions of groups aggregating there; that is, given adherence to the longstanding Southwestern pattern of "ethnic co-residence" (Johnson 1989:383).

The Pettit site data thus hint at a complex balance of integrating and differentiating processes, a complexity fully expectable under conditions of social upheaval and reorganization. Although many aspects of this model remain to be substantiated, at the moment it provides a useful foundation for future theoretical and empirical work. At least two conceptual advantages of the model come to mind. The social differentiation stipulated by the model provides a basis for theorizing social tension and struggle in Pueblo III society. These are persistent themes in Pueblo ethnography and historiography, and their prehistoric reality is hinted at in previous studies of west-central New Mexico (Nelson and Cordell 1982; Anyon and others 1983). On the interpretation briefly sketched here, tensions arise from groups holding different positions in a community-wide division of labor; from their dependence on socially regulated forms of redistribution; and from their retention of different, historically conditioned social identities and consciousnesses. Other tensions are imaginable arising within social groups (Saitta 1987; Saitta and Keene 1989).

The notion of hierarchy allowed by the model seems requisite for understanding subsequent changes in the Zuni area, specifically population aggregation at large, planned pueblos after A.D. 1275. Several different causes for late prehistoric population aggregation have been suggested, including drought, population increase, and the need for defense (reviews in Anyon and others 1983; Kintigh 1985). Whatever its cause, late thirteenth-century aggregation in the northern Southwest is an unprecedented development in regional cultural geography (Kintigh 1990). It seems reasonable to think that this development depended on some important changesin power relations and subjectivities that helped weaken

pre-existing forms of resistance to settled life in big communities. That such resistance persisted even after aggregation is conceivably indicated by the tremendous amount of construction, movement, and abandonment of big pueblos during the late 1300s and 1400s (Kintigh 1985:115-117). At the Pettit site, we may be witnessing important dynamics related to the "disciplining" of the body politic, which in turn helped facilitate movement into big pueblos. Further excavation and analysis of the Pettit site data with such expectations and dynamics in mind will, it is hoped, yield further insight into the nature and sources of change in prehistoric Southwestern social life.

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