

**Site 5MT3: A Small Village in the Joe Ben Wheat Site Complex  
(5MT16722), Yellow Jacket, Colorado**

Richard H. Wilshusen and Jeannette L. Mobley-Tanaka

2005

# Chapter 1

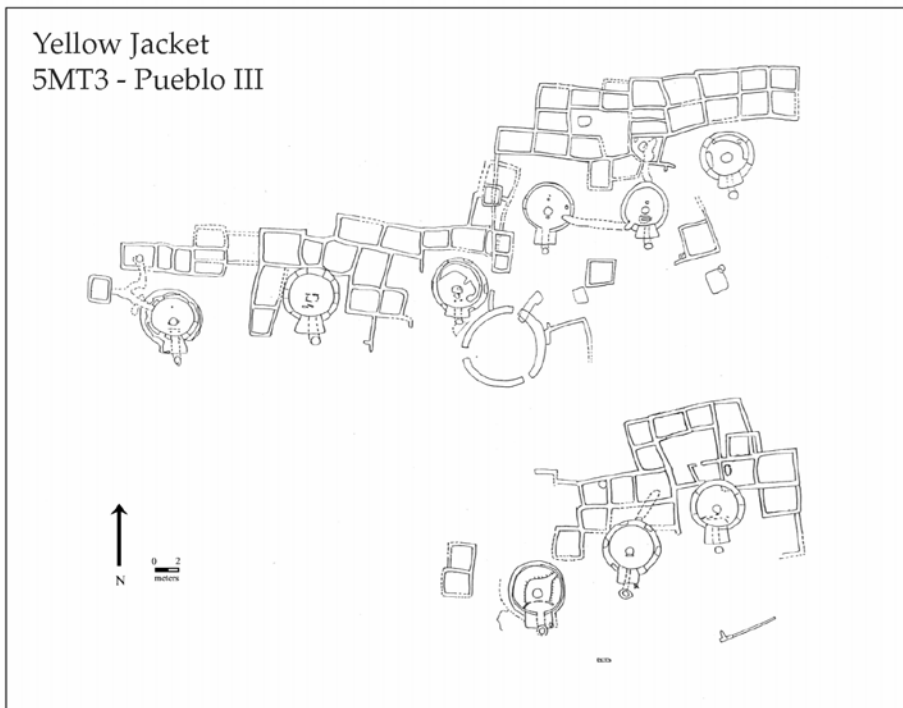
## Introduction to the Archaeology of 5MT3

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Site 5MT3 is one of three sites in the Joe Ben Wheat Site Complex (5MT16722), which was listed to the National Register of Historic Places in 2004 (Lekson 2004). Site 5MT3 has three distinct periods of occupation, which fall within the Basketmaker III, Pueblo II, and Pueblo III periods in the Pecos classification. These occupations date to approximately A.D. 630–660, 1050–1150, and 1150–1275.

Although 5MT3 was the second site to be investigated, it was the site that Joe Ben Wheat returned to again and again over a 30-year period of time. There have been several theses and dissertations—as well as various journal articles—that have focused on aspects or artifacts from the site; but there still is the need for a detailed site report. The present report is a preliminary site report that introduces researchers to the research history, archaeological setting, and occupation history of the site. A full site report would require hundreds of pages of descriptive text and at least a preliminary analysis of the artifacts. This is not possible at the present, but we anticipate that this preliminary report will encourage the research necessary to produce a more comprehensive site report.

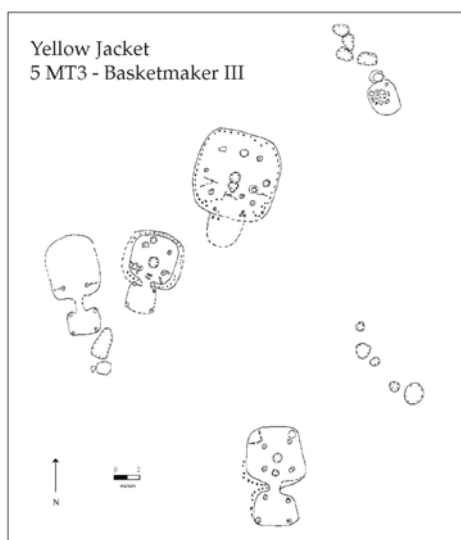
The Pueblo III occupation (5MT3. Figure 1) at the site is the largest and most well revealed of the three occupations. Its layout shaped Wheat’s strategy in excavating site.



**5MT3. Figure 1.** Pueblo III occupation. (Reproduced with permission of Sandy Karhu.)

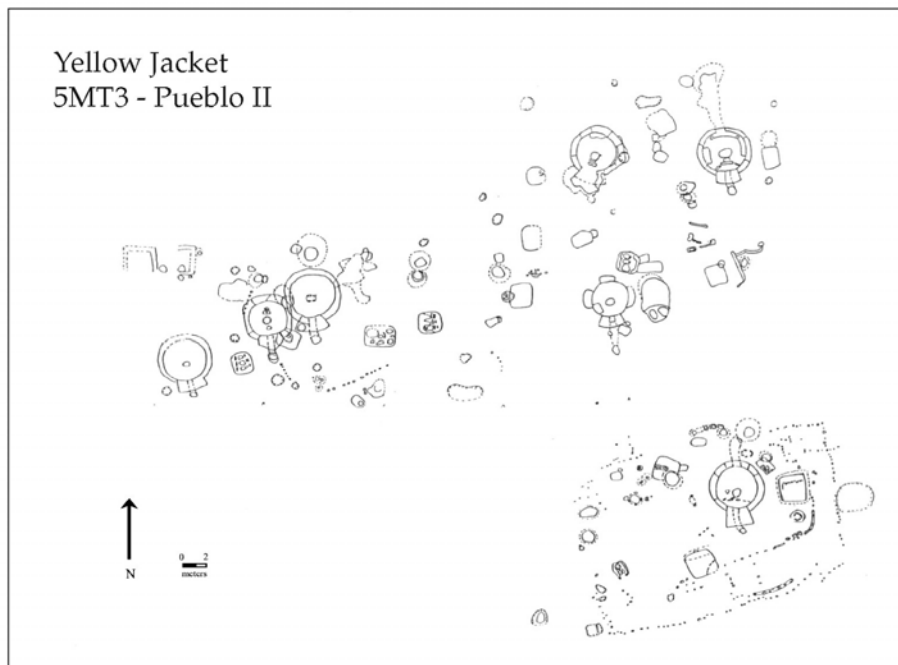
Based on patterns he observed in this Pueblo III occupation, Joe Ben Wheat delineated three distinct roomblock-kiva complexes which he referred to as Houses 1–3. Although the large northern roomblock appears to be a single unit, if one examines Figure 1 carefully, it is apparent that there is a distinct roomblock-three kiva area to the northeast (Area 2, or “House 2”) and another roomblock-three kiva area to the west (Area 1, or “House 1”). The separate roomblock and three kiva unit to the southeast is Area 3 (or “House 3”). A much smaller roomblock and kiva complex considerably to the south of Area 3 received limited investigation for a single season, but is not discussed or mapped in this report because of the very limited exposure of this portion of the site. It is identified as “House 4” or Area 4. We use the current designation of “area” to distinguish the different subdivisions of the site, but anyone using the notes or past research should be aware of Houses 1 through 4.

The earliest occupation of the site dates to the Basketmaker III period. One structure has a well-documented construction date of approximately A.D. 635–638, making it one of the earliest known habitations in this locality. There are a total of four pitstructures and two complexes of storage pit rooms that comprise the Basketmaker III occupation (5MT3. Figure 2).



**5MT3. Figure 2.** Basketmaker III occupation. (Reproduced with permission of Sandy Karhu.)

There is no evidence of any occupation dating to the eighth, ninth, and tenth centuries at the site. Based on the architectural evidence it is not until the late eleventh century that there is a reoccupation of the site. The earliest Pueblo II structures may date as early as A.D. 1020 and there are at least two, and probably three, construction sequences dating to Pueblo II. Seven different kivas, numerous post and adobe surface structures as well as subterranean rooms, and up to six mealing rooms fill the Pueblo II map (5MT3. Figure 3). The overall architectural layout is complicated by the many rebuildings and remodelings during this time period.



**5MT3. Figure 3.** Pueblo II occupation. (Reproduced with permission of Sandy Karhu.)

Wheat's excavations at 5MT3 represent a pioneering effort to understand the occupation history of a very complicated and important site on the Great Sage Plain. Although the architecture he exposed in the 1960s and 1970s appeared to be atypical for the Mesa Verde region at that time, the site occupation history and architectural variability are well within Mesa Verde norms based on excavations in the last two decades. In addition, the unusually long occupation history spanning Pueblo II and III at 5MT3 and in this locale appears to be substantiated by evidence presented in this report and recent investigations at Yellow Jacket Pueblo (Varien and Ortman 2005).

The inhabitants of 5MT3, at least for the Pueblo II and III occupations, belonged to a larger community comprised of contemporaneous nearby sites. This is obvious when one stands on the ruins of 5MT3 and can see the sagebrush covering the Pueblo III site of 5MT2 just on the next rise to the west, the Pueblo II-III site of 5MT1 just slightly south of 5MT2, and the immense village of 5MT5 (Yellow Jacket Pueblo) just across Tatum Draw to the east and northeast. All of these sites appear to have been abandoned with the ancestral Pueblo migration from this region by approximately A.D. 1280.

### **History of Research**

In 1961 Wheat began excavating at 5MT3, a site with many similarities to 5MT1 which he had excavated between 1954 and 1959. Both sites had clear Pueblo II and Pueblo III occupations, and later Wheat would also discover a Basketmaker III occupation at 5MT3 that was somewhat reminiscent of the first area he excavated at 5MT1. After working with field schools at 5MT3 for

three seasons (i.e., 1961–63), he returned to finish his investigations in the Porter area of 5MT1 in 1965 and 1966.

With the exception of a few days work at 5MT3 in 1969, there was a break in Wheat's archaeological work between 1967 and 1975, during which he completed and worked on a variety of other projects related to PaleoIndian archaeology, as well as Southwestern textiles. Joe Ben Wheat resumed the Yellow Jacket field school in 1975, and from that point on he transferred his energies back to Site 5MT3. He had field schools at the site in 1975, 1977–78, 1980–86, and 1989–91. All told he spent a total of 17 field seasons at the site. To find the specific dates or crew lists for each field season, visit the discussion of Joe Ben Wheat's excavations at the Yellow Jacket project web site ([http://cumuseum.colorado.edu/YellowJacket/wheat\\_main.html](http://cumuseum.colorado.edu/YellowJacket/wheat_main.html)).

In the early seasons the roomblocks were cleared of sagebrush and then the piles of this brush were burned at the edge of the site. A baseline was established and excavation units (EUs) of approximately 2 m by 2 m were used as the primary unit of investigation. Units were excavated in 10-20 cm levels or natural stratigraphy. Once a structure was encountered, then the limits of the excavation unit were realigned to the structure's outline. Trenches approximately one meter wide and of varying lengths and depths were used to explore the midden and to define the northern limits of the roomblocks. Screening was reserved for limited situations where recovery of small items such as beads, small flakes or other small artifacts was expected. Excavation was by shovel except when burials, floors, or features were encountered and trowels and finer excavation tools were required. This very limited summary is meant to offer only a general idea of the excavation practices. For specifics, it is important to consult the excavation notes for each unit.

Although a series of student investigations have focused on specific portions of the 5MT3 artifact collections, the vast majority of the materials have not yet been systematically analyzed. The artifacts have been separated in a preliminary sort into different material types (i.e., ceramic, faunal, etc.) and in the cases of the higher input tools such as projectile points or worked bone, these tool categories have been noted and the items separated. However, the bulk of the potential information associated with this collection has yet to be developed. One of the intents of this report is to summarize the sites sufficiently that researchers will consider the collections for specific research questions and undertake some of the needed analyses.

### **Available Documents**

There have been a number of student project papers and theses that have made use of the collections from 5MT3. The citations for these works are given in Table 1, with a brief summary of the subjects covered. Several of these works (Hurth 1986; Karhu 2000; Lange and others 1988; Lekson 2004; Mobley-Tanaka 1997a, 1997b, 2005; Stevenson 1984; Wheat 1981) have been useful in writing this short site summary because of they present more comprehensive views of the work at the site. It is likely that there are other documents on 5MT3 that are not listed in the table, yet that will be called to our attention as a result of this report.

5MT3. Table 1. Documents describing primarily material analyses of 5MT3 collections.

<b>Citation</b>	<b>Subject</b>
<b>Theses</b>	
Brockman 1993	M.A. thesis on denticulate chipped stone tools from 5MT3
Ellwood 1978	M.A. thesis on ceramic artifacts from 5MT1, Porter area and 5MT3, Area 3
Hurth 1986	M.A. thesis on faunal analysis of some of the bone from 5MT3
Mobley-Tanaka 2005	Ph.D. dissertation on ceramic manufacture and distribution in Yellow Jacket area using sherds from 5MT1, 2, and 3.
Stevenson 1984	Ph.D. dissertation on chipped stone manufacture and material use at 5MT3
Swedlund 1969	M.A. thesis on human remains from 5MT1 and 5MT3
Yunker 2001	M.A. thesis on human remains from 5MT1 and 5MT3
<b>Technical Reports</b>	
Karhu 2000	Analysis of human remains from 5MT1 and 5MT3
Lekson 2004	National Register nomination for the Joe Ben Wheat Site Complex
<b>Chapters and Journal Articles</b>	
Anderson 1997	Analysis of burial practices at 5MT1 and 5MT3
Barnhart 1992	Lithic procurement patterns at Yellow Jacket
Brown 1976	Progress report on 1975 excavations at 5MT3
Cater and Chenault 1988	Use of kivas at Yellow Jacket, 5MT3 and Mesa Verde
Dinerstein 1997	Groundstones and pigment processing at 5MT3
Ellison 1997	Analysis of projectile points from 5MT1 and 5MT3
Malville 1989	Fragmented human bone concentrations at 5MT1 and 5MT3
Malville 1994a, 1994b	Dental evidence of health at 5MT1 and 5MT3
Mobley-Tanaka 1997a	Interpretation of Pueblo II mealing rooms at 5MT1 and 3
Mobley-Tanaka 1997b	Introduction to the archaeology of the Yellow Jacket area
Murphy and Imhof 1997	Stone pendant manufacture and use at 5MT3
Parker 1997	Petrographic analysis of sherds from 5MT3
Wheat 1981	Summary of CU Museum work in the Yellow Jacket area
Zier 1978	Analysis of projectile points from Yellow Jacket
<b>Popular Publications</b>	
Lange and others 1988	Summary of CU Museum work in the Yellow Jacket area

## **This Report and Wheat's Interpretations**

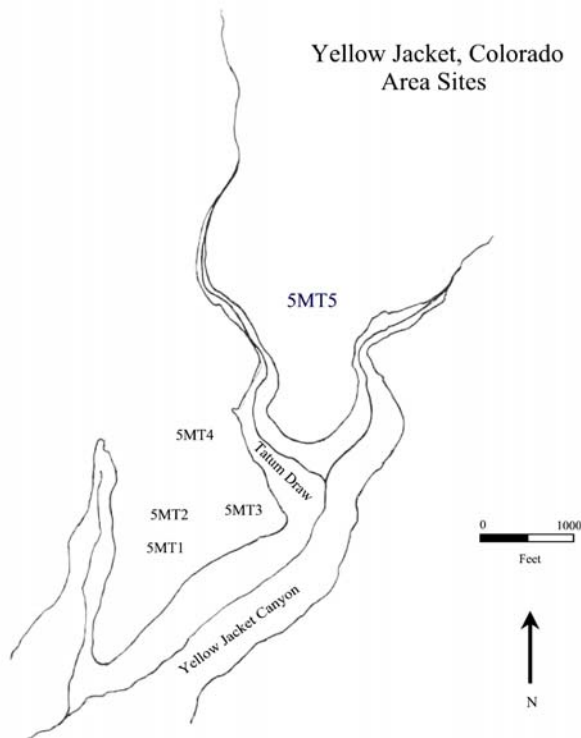
Joe Ben Wheat had drafted basic reports on the architecture of Site 5MT1, but he did not get to write up other than a few thoughts regarding 5MT3 (e.g., Wheat 1981). He did train one of the two authors of this report (Mobley-Tanaka), and though she gratefully acknowledges his influence, she is an independent scholar and driven by her own interests. At times we make use of some of Wheat's interpretations that we are aware of, but the present report is NOT the report that Wheat intended to write. Our impression is that he would have tried to capture the grand scope of ancestral Pueblo change in his description of the changes at this site. Instead, we have focused on two different goals. For the better understood Pueblo III occupation, we have focused on the households and community of 5MT3. For the less well known, but very important, Basketmaker III and Pueblo II occupations, we offer basic descriptive summaries in the hopes that they will spur additional research on the site materials.

## Chapter 2

### Site Setting and Subsistence: The Local Community, Natural Resources, Prehistoric Climate, and Historic Impacts

Richard H. Wilshusen

The Joe Ben Wheat site complex is in the heart of the central Mesa Verde region (Varien 2000: Figure 1). The sites in the complex are located on the north side of Yellow Jacket Canyon, approximately 1.2 km downstream from the point where Yellow Jacket Creek becomes entrenched. The three sites investigated by the University of Colorado Museum's field schools (5MT1, 5MT2, and 5MT3) are separated from Yellow Jacket Pueblo (5MT5), an imposing cluster of masonry roomblocks, towers, road and reservoirs, by a small intermittent drainage named Tatum Draw (5MT3, Figure 4). Sites 5MT1 and 2 are located very near one another on the crest of a broad, low ridge above the cap rock on the north side of the canyon and are so close to one another (less than 25 meters) that they could easily be classified as a single site. Site 5MT3, a multi-roomblock site containing at least 60 rooms, is on a small knoll overlooking Tatum Draw, approximately 250 meters to the northeast of 5MT1 and 5MT2.



**5MT3. Figure 4.** Yellow Jacket locale showing sites close to 5MT3. (Reproduced with permission of Sandy Karhu.)



The setting of the locale must have been among the reasons that made the sites attractive to Joe Ben Wheat when he first started excavating in 1954. The Yellow Jacket sites are within the larger Monument and McElmo drainage unit, which is a very favorable setting for both agriculture and foraging (Adams and Peterson 1999: Table 2-7). Although Wheat did not have the details in 1954, it was clear to him that the sites were well placed relative to many natural resources. Additionally, the three sites are only 200 to 500 meters from Yellow Jacket Pueblo (5MT5), the largest ancestral Pueblo site in the Mesa Verde region (Ortman and others 2000:130-131). Even in the 1950s, Yellow Jacket Pueblo was well recognized as one of the largest prehistoric sites in the whole region. Within several years of initiating the work, Wheat appreciated the possibility that, owing to their favorable location, these sites might have been occupied for a long time and have played a central role in the prehistory of the region. This fit well with his plan to understand prehistoric change in the Mesa Verde region.

By briefly examining the community setting, nearby natural resources, and general pattern of climate change between A.D. 600 and A.D. 1300 we can frame some of the key research issues at these sites and place Wheat's investigations into a broader context. The historic use of this area is also reviewed, because it is one of the primary sources of site disturbance. More detailed discussions on the local environmental setting can be found in documents describing Crow Canyon Archaeological Center's recent investigations at Yellow Jacket Pueblo (Kuckelman 2003a) and in student theses documenting the University of Colorado Museum's excavations (e.g., Cater 1989; Stevenson 1984; Yunker 2001). For more detailed information on the regional prehistory and social setting go to Lipe, Varien, and Wilshusen's (1999) synthesis of the region's archaeology or Varien's (1999a) comprehensive examination of the Mesa Verde region's Pueblo II-III communities. Both Crow Canyon (Connolly 1992, 1996) and the University of Colorado Museum (Lange and others 1988) also have produced short summaries of the historic land use in the Yellow Jacket area.

### **The Local Community**

Anthropologists have long recognized that community is one of the most fundamental ways in which households organize themselves to use and reside on local landscapes. A community is made up of a group of households and individuals who typically are in daily contact and who share access to local social and natural resources (see Adler [2002] and Varien [1999a] for more detailed discussions). For 5MT3, the size and nature of the community must have changed dramatically between the original occupation of the site in the seventh century and its final occupation in the twelfth and thirteenth centuries.

The Basketmaker III occupation of the 5MT3 is one of the earliest known habitations in the Yellow Jacket locality, and is quite substantial with its four pitstructures and substantial storage rooms. Other than for a possible six pitstructure settlement at Step House (Birkedal 1976:484-489), the largest seventh century settlements in the region consist of hamlets of two pitstructures (e.g., Lancaster and Watson 1954; Morris 1991; Rohn 1975). It is striking that a slightly later Basketmaker III settlement at nearby 5MT1 (see <http://cumuseum.colorado.edu/YellowJacket/5MT1.html> for this site report) also had four pitstructures, two of which were quite substantial. This reinforces the presence of an early occupation of this locality, and it is quite probable that the Yellow Jacket sites were part of a

small community. However, since intensive archaeological surveys have not been conducted in the vicinity, it is not possible to fully address community issues for the early occupation.

Beginning in the eleventh century, the Yellow Jacket community was dominated by Yellow Jacket Pueblo. This large village was occupied almost continuously between A.D. 1060 and A.D. 1280, with the most intensive and extensive occupation deposits representing the A.D. 1180 to A.D. 1260 period (Ortman 2003). At its peak, the population of this single village is estimated to have been between 850 and 1,360 people (Kuckelman 2003b), with between 106 and 170 kivas in use. This is at least 15 to 25 times larger than the probable contemporaneous maximum population of 5MT3.

Although Yellow Jacket Pueblo must have dominated local community socio-political affairs, it presently appears that in day-to-day domestic life the residents of 5MT3 would have had many more ties to the inhabitants of the small hamlets of 5MT1, 2, and an unnumbered roomblock just east of 5MT1. It is quite possible that the households at the four sites shared kinship bonds, held agricultural land in common, or cooperated on various tasks.

In a recent analysis of intracommunity interactions among Pueblo III residents of the Yellow Jacket community, Mobley-Tanaka (2005) found that residents of the small sites maintained different social and economic ties than those of Yellow Jacket Pueblo. While households in the large village cooperated in the acquisition of non-local materials, such as igneous temper for gray ware pottery, residents in 5MT1, 2, and 3 appear to have maintained narrower alliances, possibly along kinship lines. This suggests that the residents of the smaller sites maintained a level of independence and maintained their kinship-based social ties despite the growth of a large village just across the canyon.

The presence of public architectural features such as a multistory great house, at least one great kiva, and the Great Tower Complex are clear evidence of communal activity at Yellow Jacket Pueblo, but there is no clear indication that residents of 5MT1, 2, or 3 participated in the ritual activities in those structures. For example, Ortman (2003) demonstrated that large gray ware vessels were associated with the Great Tower Complex, and suggests they are evidence of communal ritual. Mobley-Tanaka (2005) examined the temper in a sample of those gray ware sherds and found they were dominated by tempers unique to Yellow Jacket Pueblo and largely lacking from small site assemblages, suggesting the communal rituals were limited to the residents of the large pueblo itself. Around the same time, the construction of Pueblo III communal architecture at 5MT1 and 5MT3 (the amphitheatre and the dance circle) offers further evidence that the residents of small sites did not participate in ritual integrative activities with Yellow Jacket Pueblo residents.

For the two centuries that Yellow Jacket Pueblo persisted as one of the region's great sites, its estimated catchment area (i.e., the resource area controlled by this community) may have grown from 350 square kilometers to over 2000 square kilometers (Varien 1999a: Tables 7.1-7.3). Clearly, the presence of the Pueblo must have had a significant impact on residents of the small, surrounding sites. Mobley-Tanaka's analysis focused only on the Pueblo III occupation, when the Yellow Jacket Pueblo was at its largest. Further investigations into the nature of the community at Yellow Jacket in earlier time periods are critically needed.

## **Natural Resources**

There are certain natural resources that are essential to establish and maintain a residential site such as 5MT3. Potable water, agricultural soil, appropriate climate, adequate building materials, abundant wild plant and animal resources, and other specialized items such as potter's clay all are key resources for an ancestral Pueblo settlement in the Mesa Verde region. The Yellow Jacket locality is remarkably well supplied with all these resources, and this in part may have allowed Yellow Jacket Pueblo to have become one of the longest-lived and certainly one of the largest of the Pueblo III villages in the region. The survival of a small village such as 5MT3 undoubtedly depended on some sort of pact with, or ties to, such a large neighboring community center.

### Water

Yellow Jacket Creek is one of the largest and best-watered tributaries of McElmo Creek. Several important springs and seeps within 200 meters of 5MT3 have been well known for their dependability and purity for at least the last one hundred and fifty years (Connolly 1996:10; Lange et al. 1988:14) and likely were as reliable over a thousand years ago. Water must have become an increasingly scarce resource, because by early Pueblo III times at least one large reservoir and a number of smaller water control dams were built at Yellow Jacket Pueblo (Kuckelman 2003c; Wilshusen, Churchill, and Potter 1997: Table 2).

Water would have been vital for cooking, drinking, and cleaning, as well as important in building earthen structures, making pottery clay, and possibly even sustaining some crops. Though Yellow Jacket Creek has gone dry in certain seasons during droughty years, it appears that the seeps and even the spring have been dependable throughout historic times.

### Agricultural Requirements: Soil and Climate

When 5MT3 was first discovered in the 1950s, it was located just east of a bean field that had recently been put into cultivation. The local soils formed in both deep eolian sediment and alluvial sediment along the canyon rims and in the canyon below the site. The soils in the area of 5MT3 are part of the USDA's Cahona-Sharps-Witt soils mapping complex, with the upper horizon consisting of 30 cm or so of reddish brown loam and the subsurface argillic horizon extending to up to 160 cm deep with increasingly amounts of calcium carbonate at depth. In the USDA's Soil Taxonomy these soils are fine-silty, mesic Ustollic Haplargids (Soil Survey Staff 1975). In everyday language, this means that these soils would have been excellent for prehistoric horticulture, given their ability to hold water, their favorable soil chemistry, their depth, and their gentle slope with a southeast aspect. Nearby fields have been in corn, bean, wheat or alfalfa tillage for in some cases over 80 years, which provides at least anecdotal evidence of the agricultural viability of this area.

Horticultural success also requires a sufficiently long growing season and adequate annual precipitation. The Yellow Jacket sites are located at approximately 2072 m (6800 ft) elevation, a setting that maximizes potential precipitation while minimizing the threat of crop loss due to

early frost. The average annual precipitation is 41 cm (16 in.), with excellent distribution of the moisture throughout the year. There is an average of 135 frost-free days per year 90% of the time (Adams and Peterson 1999). All of these factors make this a relatively promising setting for maize horticulture.

The occupations at Site 5MT3 date specifically between A.D. 630 and A.D. 660 and between A.D. 1040 and A.D. 1280. Overall, these are relatively favorable periods for human habitation of the area, but there are particularly difficult drought periods between A.D. 1130 and A.D. 1180 and between A.D. 1276 and A.D. 1299 (Dean and Van West 2002). Globally, the Little Ice Age began by A.D. 1250 and brought a period of cooler, drier weather to the Four Corners region. The prolonged drought of A.D. 1276 to A.D. 1299 probably would have caused water tables to fall, which would have exacerbated an already difficult situation.

No study has yet been made of the vegetal remains from 5MT3, but flotation, pollen and bulk soil samples were taken from features and locales that might have preserved prehistoric vegetal remains. Macrobotanical specimens were commonly recovered in the field and it appears that there are samples of corn, squash, beans, and various seeds and woody plant remains recovered from all components of occupation at the site. One of the strengths of working with samples from a multicomponent site is that it may allow a comparison of early and late subsistence and resource use strategies in the same locality.

#### Wild Plants and Animals

Pinyon and juniper cover the canyon rims and talus just east and south of 5MT3 and, along with the oak, willow, and reeds of the canyons, provided excellent building materials, as well as wood for everything from cradleboards to hoe handles. In addition, various wild berries; ruderal plants such as amaranth; pinyon nuts; some cacti and yucca; as well as various grasses and herbs provided excellent resources for food, basketry, cordage, and medicine. Although the vegetal remains have not yet been analyzed, the preliminary inventory of tentatively identified vegetal materials includes willow twigs, juniper bark and wood, pinyon wood, cheno-am seeds, and beeweed seeds. This list does not represent an expert analysis and does not account for the numerous, as yet unidentified, seeds and plant remains. As with the cultivars, an expert analysis would allow the comparison of the types of plants found in the early and late components. Such an analysis would be important for understanding how land use and agricultural strategies might have changed between A.D. 625 and A.D. 1275 in the Yellow Jacket area.

Rabbits, mule deer, elk, and semi-domesticated turkey all would have been possible sources of meat, bones for tools, and other household products. A very limited examination of the faunal materials includes the following species: badger, cottontail, prairie dog, turkey, marmot, chipmunk, jack rabbit, squirrel, bighorn sheep, and mule deer. This list is not exhaustive, nor does it represent an expert analysis of the majority of the items in the collection. A preliminary examination of animal bone from Area 1 (Hurth 1986) indicated that large game such as mule deer and elk provided the majority of the meat. However, smaller game such as turkey, rabbits, and rodents clearly represented a substantial portion of the diet. Turkey and artiodactyl bone are the chief source of raw material for bone tools.

Many of the faunal items in the 5MT3 collection were not collected by screening, but even with that limitation, the sheer size of the collection and temporal range represented by the materials should allow for important analyses, especially when combined with larger-scale regional studies (e.g., Driver 2002)]. A number of pieces of animal bone were fashioned into hide-working or weaving tools.

### Geologic Resources

There are many useful geologic resources close to 5MT3. The bedrock forming the nearby canyon walls consists of Dakota Formation sandstone. This stone breaks into angular blocks that can be easily shaped into building stones; significant amounts of this stone were needed to construct the masonry pueblo and deep kivas of the site's Pueblo III occupation. This same type of sandstone was frequently used to construct the manos and metates found in the excavations.

There also are nearby clay deposits on the talus slope of Yellow Jacket Canyon, just south of 5MT3. These clays are suitable for ceramic production (Lange et al. 1988:19) and the raw clays, ceramic production tools, and pottery kilns found at the Yellow Jacket sites lend credence to the idea that much of the pottery at the sites was produced locally (Mobley-Tanaka 2005).

Finally, it is likely that many of the raw materials for the numerous chipped stone tools, pendants, and ground stone implements are locally available, but more detailed analytical studies are needed to confirm this. A Ph.D. candidate at Washington State University, Fumi Arakawa, is presently engaged in a regional study of the sources for chipped stone tools in this area and his dissertation should provide a crucial set of evidence for studies on this topic.

### Historic Disturbance

The Forest Service aerial photos of this area taken in 1940 (CDL 43-49 and 43-50) show that 5MT3 was covered at that time by brush and small trees. There are large fields about one mile to the northwest, but the slightly rougher and sloping terrain close to the canyon probably was less favorable for mechanical cultivation. By 1953, when Joe Ben Wheat first heard about the Yellow Jacket sites, the land around 5MT1, 5MT2, and 5MT3 was being cleared for cultivation. It appears that the landowner, H.B. "Hod" Stevenson, had excavated either in these sites or at other nearby Yellow Jacket sites prior to that time. Based on a note with one of the two groups of pots he donated to the Museum, it appears that about two thirds of the approximately 50 whole vessels in the donation came from sites on his Yellow Jacket land. At least two Pueblo III masonry rooms at 5MT3 were specifically identified as locations of some of Stevenson's excavations, one in Area 1 and another in Area 2.

Based on 1:20,000 black-and-white aerial photos taken in 1950 (DKQ-2-153 and 154), it is evident that little of 5MT3 was cleared prior to Joe Ben Wheat's initial excavations in the 1960s. Regular plowing of the area just to the west of the site began by at least 1953 with the fields being put into pinto bean cultivation. This kind of clearing and cultivation heavily disturbs the upper 20 to 25 centimeters of soil and typically accelerates erosion, but it was confined to the immediate west of the site.

## Chapter 3

### Overview of the Occupation Sequence at 5MT3

Richard H. Wilshusen

We have broken the site history of 5MT3 into three main occupations. These fall into the Pecos Classification periods of Basketmaker III (A.D. 500–750), Pueblo II (A.D. 900–1150), and Pueblo III (A.D. 1150–1300). These occupations are briefly summarized in this chapter and then explained in greater detail in the three chapters that follow.

#### **Basketmaker III**

The Basketmaker III occupation is noteworthy for its relatively early date (A.D. 630–660). As is the case with many Basketmaker habitations in this region, it is not particularly long-lived. Of the four Basketmaker III pitstructures at 5MT3 at least two (Pitstructures 29 and 80) may be contemporary residences for at least two households. Pitstructure 80 is the largest of all the pitstructures and has a main chamber of more than 40 sq. m. Its antechamber was almost totally destroyed by the construction of a Pueblo III kiva. The presence of semi-subterranean rooms for food storage, as well as the kinds of artifacts found in the various Basketmaker structures and trash, all provide evidence that the site likely functioned as a small farming hamlet. Pitstructures 29 and 80 appear to have been intentionally set on fire so that their roofs collapsed at abandonment. These structures deserve much more study given their size, relatively good preservation, and the variety and unusual nature of some of the materials associated with them.

The two additional Basketmaker III pitstructures (114 and 41) are not as substantially represented in their archaeological remains, but appear to be the same general time period as the larger structures. The main chamber of Pitstructure 41 was largely destroyed by later Pueblo II and III construction so that the primary evidence for its construction is derived from what remains of its antechamber. Pitstructure 114 is a very shallow pitstructure with a floor only 40 cm below the projected prehistoric ground surface. It has associated storage rooms to the northeast of the pitstructure so despite its relatively insubstantial construction, it may too have served as a year-round residence for a single household. There were no human burials associated with this component of the site, which suggests that either the occupation was relatively short-lived, or that the cultural practice of the inhabitants was not to bury their dead close to habitations.

Two immense Basketmaker III residences and their rows of storage rooms in the Stevenson area of the nearby site 5MT1 date to the last quarter of the seventh century (i.e., 675–700) and are a successive occupation (see [http://cumuseum.colorado.edu/YellowJacket/5MT1\\_stevenson.html](http://cumuseum.colorado.edu/YellowJacket/5MT1_stevenson.html)). The records and artifacts from these sites present a wonderful opportunity to look at changes in Basketmaker III habitations that are closely linked in both time and space.

## **Pueblo II**

A long period follows Basketmaker III in which there is no evidence of site use at 5MT3, or any of the other sites in the Joe Ben Wheat Site Complex. It is not until approximately mid-Pueblo II, or between A.D. 1020 and 1060, that several small household structures are built in two areas of the site. The construction of enclosed post and adobe residential compounds in late Pueblo II sets the stage for the large masonry roomblocks and kivas that define the three different residential areas in Pueblo III.

The Pueblo II occupation begins with the construction of two relatively small and uncomplicated kivas that date to sometime between A.D. 1020 and 1060. Kivas 25 (Area 2) and 24 (Area 1) probably have associated subterranean rooms and storage features, but their layouts are minimal and each kiva at most represents the residence of a single household. It is quite possible that each of these structures functioned as independent farmsteads that were occupied at different times in mid-Pueblo II.

A second more substantial component of Pueblo II occupation dates to sometime between A.D. 1060 and 1140 and consists of at least two, and possibly three, use areas at the site. The best preserved of these areas, Area 3, has a well-designed residential compound with at least one kiva, a number of subterranean rooms and large storage pits, and a surrounding wall with attached post and adobe rooms. It is possible that there was a second kiva associated with the compound. Another somewhat smaller residential compound is evident in Area 1 and clearly postdates the earliest Pueblo II use of this area. Again, at least one kiva, several subterranean rooms and large storage pits, and a surrounding wall with post and adobe rooms make up the complex. It is possible that there is yet another compound that has been obscured by later construction or only partially exposed in Area 2. These late Pueblo II kivas in the three areas of the site are the core of residential groupings that will continue to be used and remodeled well into Pueblo III.

## **Pueblo III**

Although the site occupation sequence spans Pueblo II to Pueblo III without any obvious break in habitation, we have chosen to separate the two in this investigation because architectural characteristics and site design change extensively over this span. The earliest Pueblo III architecture at the site consists of three small roomblocks, each with one associated kiva. They augment the late Pueblo II construction in each of these areas, which appears to be used well into Pueblo III times. The rooms are masonry construction and the kivas are masonry lined and have cribbed roofs supported by six masonry pilasters, as is typical of kivas in the Mesa Verde region at this time. The early Pueblo III rooms in both Areas 1 and 3 are constructed to the side of where the late Pueblo II post and adobe structures. The later Pueblo III structures are then built on the same basic locations as the earlier Pueblo II roomblocks are abandoned and razed.

Expanded roomblocks are built in the mid-late Pueblo III period in the same area as the late Pueblo II post and adobe structures, and at least in the case of Area 3 these are constructed on the same footprint. The exact locations of the late Pueblo II post and adobe rooms in Areas 1 and 2

are less well defined, but the Pueblo III structures there at least approximated the location if the not exact footprint of the earlier construction.

By mid-Pueblo III the vast majority of the approximately 60 surface rooms and six kivas that characterize the site at its population peak are in place.

The final occupation of the site consists of six different households that persist until sometime between A.D. 1260 and 1280. The abandonment patterns in the last residences suggest that people are making long distance moves when the site is finally abandoned. The final occupation of Site 5MT5 appears to correspond with that of the immense village just to the northeast of the site.

### **Research Opportunities**

It must be emphasized that this is a preliminary site report for 5MT3. With the exception of some of the discussion of households in the Pueblo III chapter, which are derived from Moble-Tanaka's dissertation (2005), this report is principally based on limited study of the field notes and site maps. A systematic study of the artifacts from the site is still needed and detailed analyses of the different components of occupation will be required to evaluate the merits of our preliminary interpretations. As of 2005 the artifacts have been totally reorganized and these data linked to a provenience database.

These site collections have immense research potential for several obvious reasons. First, the broad site exposure and relatively long time depth of the occupations allow for research on diachronic issues such as changing site use patterns, subsistence strategies and economies, and household and site organization issues. Second, the location of the site just across a small draw from the largest recorded late Pueblo II-Pueblo III village in the northern San Juan drainage offers a unique lens on regional issues in the late Pueblo periods in the Mesa Verde region. Finally, the occupations at the site, while not continuous, bracket the earliest and latest Pueblo occupations in the region. These range from Basketmaker III to Pueblo III and accordingly offer a great variety of research opportunities.

More detailed discussions of the occupations are presented in the following chapters. For additional information on two other nearby sites (5MT1 and 2) that were excavated by Joe Ben Wheat or general information on the University of Colorado's Yellow Jacket Archaeological Project, go to the web site: <http://cumuseum.colorado.edu/YellowJacket/>.



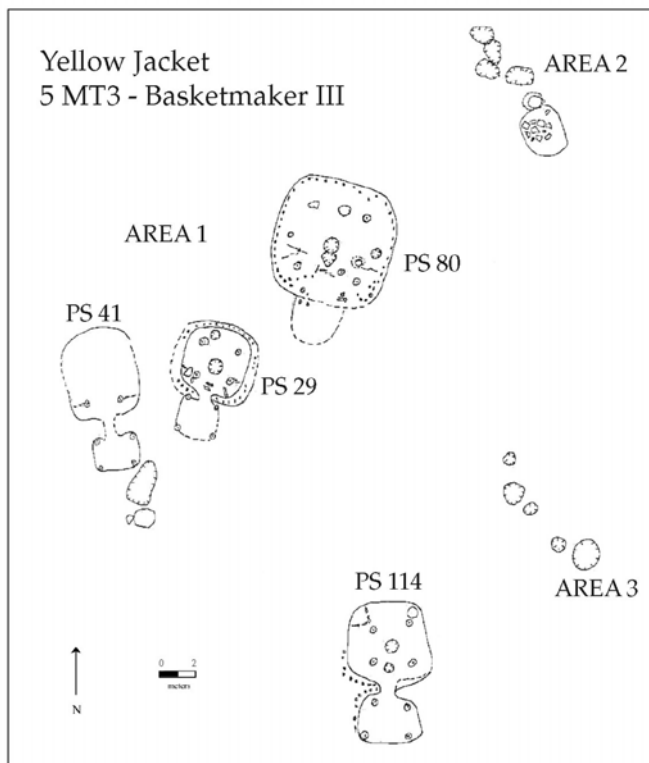
## Chapter 4

### The Basketmaker III Occupation, Site 5MT3

Richard H. Wilshusen

#### Architecture

The Basketmaker III occupation is underneath or cut through by construction associated with the Pueblo II and III site occupations, mainly in Area 1. In spite of these preservation difficulties, three pitstructures and two groups of storage pit rooms can be clearly assigned to the component (5MT3, Figure 5). The construction of at least one of these pitstructures can be placed to just before A.D. 640 based on tree-ring dated samples from the construction timbers. A fourth pitstructure certainly dates to the Basketmaker III period, but is not sufficiently well preserved to be described in any detail. It is possible that there are other Basketmaker III structures and features on the site, but that were not exposed in the excavations of the Pueblo II and III structural areas or were insufficiently preserved to be recognized.



**5MT3. Figure 5.** Structures associated with the Basketmaker III occupation.

The structures are similar to others documented in the region that date to the mid-seventh century (Wilshusen 1999a). In addition, the well-dated, slightly later Basketmaker III pitstructure-roomblock areas in the Stevenson area of Site 5MT1 date to approximately A.D. 675 and provide excellent examples of late seventh century architecture ([http://cumuseum.colorado.edu/YellowJacket/5MT1\\_stevenson.html](http://cumuseum.colorado.edu/YellowJacket/5MT1_stevenson.html)).

### Pitstructures

The pitstructures have floors that were excavated from 40 cm to over one meter below the prehistoric ground surface and when they were intact must have had roofs that stood a meter to a meter and a half above the ground. Two of the pitstructures (Pitstructures 80 and 29, Area 1) were burned in the course of or soon after their abandonment and so there is good evidence of their superstructures. They appear to be contemporary structures to one another. A third pitstructure (Pitstructure 41, Area 1), that is just to the west of Pitstructure 29, was largely destroyed by later Pueblo II and III constructions and is very poorly understood. A fourth, very shallow pitstructure (114, Area 1) is distinctly apart from the other three and is about 15 meters south of Pitstructure 80.

#### *Pitstructure 80, Area 1*

The largest of the pitstructures, Pitstructure 80 (EUs 74 and 80, Area 1) has a main chamber that is almost square in shape, measuring 6.3 m north-south and 6.5 m east-west. The southern antechamber of the pitstructure was later largely destroyed by the construction of a Pueblo III kiva (Kiva 65, Area 1). The pitstructure's main chamber has floor excavated about one meter below the projected prehistoric ground surface. The roof was supported by four main interior posts as well as at least 55 smaller posts set just inside the excavated pitstructure wall perimeter. The main posts would have supported the two primary beams of the roof and the smaller posts would have formed an exterior wall that likely would have extended to a height of about 2 m, such that they projected above the prehistoric ground surface by at least a meter. It appears that the eastern main interior posts were each augmented by auxiliary or replacement posts placed close to them. The roof appears to have been covered by a thick (at least 10 cm or more) earthen construction material plastered onto closing material and smaller beams. It is inferred, based on hatch covers and rubble in the roof fall immediately above the hearth, that there must have been an entryway to the pitstructure in the roof above the hearth. Based on some of the floor features it is likely there was another roof aperture in the antechamber that may have served as a vent for the structure.

The interior use space of the structure is very organized. Wing walls built of upright slabs, small posts, and earth divide the southern third of the structure into a distinct space. This space was additionally divided in the southwestern corner with a small wooden or post and adobe screen anchored by five small posts. The hearth is in the center of the structure and an ash pit is just to the south of it. Both had layers of ash and silty sediment within their fill. Within the notes and final photos, but not on the final map, there is a posthole within the ash pit. It is possible that this served as a base for a stepladder that would have allowed access to the structure from the entry in the roof above the fire hearth. Two deflectors built of upright slabs would have regulated the flow of air from the antechamber to the hearth. The southernmost deflector is built of upright

slabs secured by small exterior posts. The northernmost deflector had one upright slab at its west end that was placed perpendicularly to the main deflector. There are two possible storage cists in the floor on the east side and one on the west. A large shallow pit in alignment with the deflectors and the hearth is south of the north wall. This is sometimes where a feature interpreted as a sipapu is found, but lacking a good description in the notes it is difficult to clarify the use of this feature.

The structure had burned and there was up to 50 cm of burned roof fall collapsed on the floor. Almost one hundred tree-ring samples were taken from the burned timbers of this pitstructure, and 31 of these were datable, with a clustered group of construction dates in the late A.D. 630s (see the Chronology section that follows for details). The numerous timbers and large amount of burned earthen construction fragments in the roof fall corroborate the roof construction described in the introductory paragraph of this subsection. Nodules of malachite, up to ten projectile points, numerous shell beads, considerable amounts of corn, bone tools such as bone awls, and other unusual debris was recovered from the lower portion of the burned roof fall or on the floor. These items likely represent materials stored in the roof rafters or on the bench or floor at the time of abandonment of the structure. It is probable that this structure was intentionally set on fire at abandonment given the rapid and near total fiery destruction of the pitstructure roof (see Wilshusen 1986:247 for a description of some of the issues regarding pitstructure roof fires).

#### *Pitstructure 29, Area 1*

Pitstructure 29 (EU 29, Area 1) is located about 4 m to the southwest of Pitstructure 80 (EU 80, Area 1); and although it is a smaller structure, it is similar in shape and construction as the larger pitstructure and clearly is a seventh century structure based on its architectural style. It has a main chamber that is 4.0 m (north-south) by 4.3 m (east-west) by about 1.0 m deep and a southern antechamber that is 2.0 m (north-south) by 1.9 m (east-west) and has a floor at the same depth as the main chamber. The 29 exterior wall posts that were documented in the structure are anchored on a 30 to 50 cm wide bench that was about 55 to 65 cm above the floor level. It appears that these exterior posts formed the exterior vertical wall of the structure and it is likely that this wall extended at least one meter above the prehistoric ground surface. Four main posts that are 20 cm in diameter were set into postholes placed approximately one meter in from each corner of the structure. These posts supported the primary beams that were the first tier of several layers of crisscrossing smaller beams and smaller vegetal closing materials, all capped with an earthen roof covering that was at least 10 to 15 cm thick. The antechamber roof most likely was similar in construction to that of the main chamber. There are four corner posts and as well as the suggestion in some of the excavation notes of smaller perimeter posts, but more than half of the antechamber had been disturbed by the construction of a later Pueblo II subterranean room.

Floor features in Pitstructure 29 (Area 1), other than for those associated with the roofing of the structure, include a central hearth, two corner bins, two deflectors, a possible sipapu, and a small pit located between the northwest posthole and north wall. The central hearth is just south of the midpoint of the main chamber. Air for the hearth fire would have come from the antechamber vent and there are two consecutive upright sandstone slab deflectors between the antechamber and the hearth to regulate the airflow. A shallow pit of unknown function is in the floor at the narrow juncture between the antechamber and the main chamber. Two corner bins, which are

constructed of upright slabs and coursed masonry and integrating the southeast and southwest main roof supports, are in the two southern corners of the pitstructure. A shallow fired pit at the edge of the north wall and a possible sipapu in the north central portion of the floor complete the pitstructure's features.

As with Pitstructure 80 (Area 1), the lower fill of the structure was full of charred timbers, burned earthen roof and wall construction material, as well as areas of collapsed stone and sandstone slabs. This burned roof and wall fall was approximately 40 to 60 cm thick. Although a number of tree-ring samples were taken in the field, it is not clear why none of these yielded datable specimens. Two profiles suggest that there is trash fill in the structure in the place of the roof fall, but the notes for these units contradict this interpretation with notations about burned construction materials and charred wood in the same stratum. A careful examination of the artifacts from the fill should be able to clarify this matter.

#### *Pitstructure 41, Area 1*

Pitstructure 41 (EU 41, and portions of 38, and 46, all in Area 1) was largely destroyed by the construction of Pueblo II (Kiva 24, Area 1) and Pueblo III (Kiva 17, Area 1) kivas in the same space. The southern antechamber, the extreme southern portion of the main chamber, and a small northern sliver of the main chamber are all that remained. The main chamber appears to have been more rectangular in shape than the other early pitstructures and is 4.5 m (north-south) by 4.0 m (east-west). The floor of the structure was constructed approximately 1.25 m below the prehistoric ground surface. The southern chamber is 2 m (north-south) by 2.6 m (east-west).

The four postholes of the antechamber and the two main southern postholes of the main chamber are all that remained of the floor features of this structure. It appears that the pitstructure had two wing walls constructed of upright sandstone slabs that were abutted to the two main roof support posts. The floor and lower section of the wall, where preserved, are plastered with a local sediment. The remaining fill of the structure had charcoal in a matrix of yellow brown silt loam with scattered Basketmaker III sherds and other limited debris. It appears that the structure's roof was either disassembled or only partially burned and the structure then filled with a limited amount of trash. The only notable artifact found in the intact area of the structure is a small animal effigy of unfired clay.

Two shallow, irregular pits that are a meter to two meters across are just to the southeast of the antechamber. These features are excavated into the prehistoric ground surface and appear to be associated with the Basketmaker III occupation based on their stratigraphic position and fill. There is only limited evidence regarding their possible uses, but based on their location and irregular shapes it is reasonable that they may be small borrow pits for mining and mixing earthen construction material for the pitstructure.

#### *Pitstructure 114, Area 1*

Pitstructure 114 (Area 1, EU 114) has a square main chamber that is 4.2 m (north-south) by 4.2 m (east-west) and a southern antechamber is 2.2 m (north-south) by 3.0 m (east-west). It is much shallower than the other Basketmaker III pitstructures at the site and is only about 40 cm deep.

The floor of the structure was considered relatively well-defined by the excavators. The roof of the pitstructure would have been primarily supported by the four main support posts in the main chamber as well as a similar set of four posts in the antechamber. Given the very shallow excavation of the pitstructure, it is likely that it would have looked more like a surface structure and projected above the ground for at least a meter and a half or more. The exterior wall of the structure appears to have been just at the edge of the pitstructure and at least a portion of the wall postholes around the western edge of structure were uncovered in the excavation.

The main floor features, other than for those mentioned above relating to the roof support system, include a central hearth, ash pit, a slab-lined bin in the northwest corner, a shallow pit in the northeast corner, four smaller postholes just to the east of the hearth, and a possible sipapu north of the hearth. There are no features in the antechamber other than for the four postholes. The ash pit and hearth had a mix of ash, charcoal and sand with blackened sherds and lithic debris in their fills. The slab-lined bin and northeast pit probably were for short-term storage, but contained no hint of what this storage might have been at their abandonment. There were no posts found in the postholes to confirm that the structure had been intact when it was abandoned. A portion of a seed jar, a number of fugitive red sherds, and several projectile points were found on or near the floor surface.

There is evidence to suggest that the structure may have burned down sometime after its abandonment. There is a thin stratum of natural sediment with few inclusions just above the floor and next a 25 to 30 cm thick stratum of burned roof and wall fall on top of this. This structural collapse layer had numerous burned clay and charcoal inclusions, but none of the charcoal was of sufficient diameter for tree-ring samples. It is quite possible that because the structure was primarily an above-ground structure that the larger burned timbers were not sufficiently buried to have been preserved. It is quite common to obtain tree-ring samples from a burned, deep pitstructure and less common to recover samples from burned surface structures, especially those without masonry walls. A Pueblo II midden layer (25 to 30 cm thick) full of artifacts and Pueblo II burials was on top of the roof and wall fall. There were sherds, lithic tools and debris, numerous rocks and broken ground stone tools, as well as specialized items such as pendants, beads, and bone tools, in this layer.

### Pit rooms

Two groups of Basketmaker III pit rooms were uncovered in the investigations at 5MT3. Based on their stratigraphic records, the associated sherds, and their relatively close spatial proximity to the Basketmaker III pitstructures, these pit rooms are likely associated with the same component of occupation as the pitstructures. They are excavated into the B horizon soils and overlaid by the Pueblo II and III construction. These small structures range from 20 cm to more than a meter in depth and from a meter to 2.3 meters in diameter. They are clustered into two groups, one that is about 8 m northeast of Pitstructure 80 (Area 1) and the other 9 m northeast of Pitstructure 114 (Area 1). The pit rooms are in Area 2 of 5MT3 with the exception of the easternmost two pit rooms in the southern cluster which are in Area 3.

The northern pit room cluster consists of six small pit rooms or large storage features. The most substantial of these pit rooms is Pit Room 34 (Area 2), at the southeastern end of the cluster. It is

lined with sandstone slabs and was excavated more than a meter below the prehistoric ground surface. Its fill had been disturbed by later Pueblo II and III construction, as well as a burial pit. The burial had an associated Basketmaker III olla and bowl with fugitive red paint, but Karhu (2000:Appendix A) suggests that the burial is actually a Pueblo II association. One of the features with relatively intact lower construction and fill is Pit Room 59 (Area 2), which is 20 cm deep and which appears to have been burned at abandonment. Both the floor and the wall and roof construction materials had burned and the fill was full of burned clay and charcoal. Based on comparisons with other better-preserved Basketmaker III pit rooms in the area (e.g., Mitchell 2005; Wilshusen 1999a:178,180) it is likely that these small featureless rooms served primarily as granaries or temporary storage. They appear to have had small domed or teepee-like roofs built of small timber and covered with earth. In many cases these features and pit rooms are built sequentially and not necessarily all in use at the same time. It is likely that the northern cluster of pit rooms are the storage area associated with Pitstructure 80, and possibly Pitstructure 29 (both in Area 1).

The southern pit room cluster is comprised of five pit rooms or large storage pit features similar in lower construction as the northern pit room cluster. They are between 20 and 75 cm in depth. As is the case with Pitstructure 114 (Area 1), their upper fill—when it is intact—consists of Pueblo II midden deposits. One of the small pit rooms, Pit Room 50 (Area 3), deserves special note as it burned upon abandonment and serves as a possible example of the uses of these structures. The structure is only 1.1 m in diameter and about 75 cm deep (from prehistoric ground surface), but it had clear evidence of a collapsed roof, which had been made of small timbers and branches and covered with 5 to 7 cm of earthen plaster. The roof had burned and collapsed into the pit and later Pueblo III construction over the pit had obliterated any upper evidence of the superstructure, so its configuration is unknown.

The pit room had served as a granary for corn and a large quantity (approximately a quarter to a third of a cu. m) of stored corn had been burned or charred in the fire. Corn on the cob remained about 10 to 15 cm thick around the perimeter of the pit and the corn in the center had either completely turned to ash or simply remained as charred kernels. It is reasonable that this pit room and the others in the southern cluster are the food storage area associated with Pitstructure 114 (Area 1).

### Burials

There are no burials that are clearly associated with the Basketmaker III occupation of 5MT3. This provides a distinct contrast with the seven human burials associated with the Basketmaker III component in the Stevenson Area, 5MT1. It suggests this early component at 5MT3 may have had a relatively short use-life, or that there were other areas in which these early occupants buried their dead.

### **Chronology**

The chronological placement of the above-described structures is established by four different sources of evidence: tree-ring dated construction timbers recovered from the structures,

associated temporally diagnostic artifact types, the stratigraphic placement and associated fill of the structures, and the nature of the architectural construction and its abandonment.

One of the burned structures had sufficiently well-preserved construction timbers that it was possible to submit numerous wood samples to the University of Arizona’s Tree-Ring Lab for dating. This suite of samples produced 31 dates for Pitstructure 80, Area 1 (Robinson 1988). Although 12 of the samples have “very variable” (i.e., vv) exteriors and did not produce reliable data for placing the construction of Pitstructure 80, the greater part of the remaining samples produced dates that are close to a projected construction date of about A.D. 638 (see 5MT3.Table 3). A distinct cluster of these proposed construction dates (42 percent of the total) is between A.D. 635 and 638, which supports an interpretation that the structure was built in the late A.D. 630s.

5MT3. Table 2. Datable tree-ring samples, Basketmaker III period, Site 5MT3

<b>Provenience</b>	<b>LTRR Number</b>	<b>Species</b>	<b>Date</b>
Pitstructure 80 (East/west balk)	MTC-83	Juniper	505vv
Pitstructure 80 (EU 74)	MTC-77	Juniper	528+vv
Pitstructure 80 (EU 74)	MTC-78	Juniper	530vv
Pitstructure 80 (East/west balk)	MTC-81	Pinyon	558vv
Pitstructure 80 (EU 80SE)	MTC-108	Juniper	584vv
Pitstructure 80 (EU 80NS)	MTC-113	Juniper	596vv
Pitstructure 80 (EU 80NW)	MTC-105	Juniper	598vv
Pitstructure 80 (EU 80SE)	MTC-107	Juniper	607vv
Pitstructure 80 (EU 74)	MTC-86	Juniper	619vv
Pitstructure 80 (EU 74)	MTC-76	Juniper	621vv
Pitstructure 80 (EU 80NW)	MTC-95	Juniper	622vv
Pitstructure 80 (EU 80NW)	MTC-90	Juniper	630+vv
Pitstructure 80 (EU 80NW)	MTC-91	Juniper	630r
Pitstructure 80 (EU 80NW)	MTC-87	Juniper	631vv
Pitstructure 80 (EU 80NW)	MTC-94	Juniper	632+r
Pitstructure 80 (EU 80NW)	MTC-104	Juniper	632vv
Pitstructure 80 (EU 74)	MTC-79	Juniper	633+vv
Pitstructure 80 (EU 80NS)	MTC-111	Juniper	634+vv
Pitstructure 80 (EU 74)	MTC-73	Juniper	635+rB
Pitstructure 80 (EU 80NW)	MTC-103	Juniper	635+r
Pitstructure 80 (East/west balk)	MTC-82	Juniper	636+r
Pitstructure 80 (East/west balk)	MTC-84	Juniper	636+r
Pitstructure 80 (EU 80NW)	MTC-92	Juniper	636+r
Pitstructure 80 (EU 80NW)	MTC-93	Juniper	636+v
Pitstructure 80 (EU 80NW)	MTC-96	Juniper	636+r
Pitstructure 80 (EU 80NW)	MTC-97	Juniper	636+r
Pitstructure 80 (EU 80NW)	MTC-99	Juniper	636+r
Pitstructure 80 (EU 80SE)	MTC-114	Juniper	636+r
Pitstructure 80 (EU 74)	MTC-75	Juniper	637+v
Pitstructure 80 (EU 80NW)	MTC-85	Juniper	637+rB
Pitstructure 80 (EU 80NW)	MTC-98	Pinyon	638r

The excavations in Pitstructures 80, 29, 41, and 114 (all in Area 1), as well as within some of the pit rooms (Areas 2 and 3), all yielded pottery, groundstone, and chipped stone that are typical of the Basketmaker III period. Because we still lack a detailed analysis of the artifacts, it is not possible to place them more precisely in time.

The pitstructure construction styles are similar to those found at other sites in the region that are dated to A.D. 625 to 700 (Wilshusen 1999a:177–180). The single pitstructure with a well-dated construction in this group, Pitstructure 80 (Area 1), is squarely within this range. The presence of large antechambers, relatively shallow pitstructure excavations (typically one meter or less) and extensive use of exterior posts for the pithouse wall are common to this period, and are found in all the well-preserved, early pitstructures at this site. Several decades ago archaeologists thought that Basketmaker III pitstructure change was different enough through time to separate structures built in the early seventh century from those built later in the century; but now with almost 40 well-dated Basketmaker III sites in the area, these distinctions appear less temporally sensitive (Wilshusen 1999a:174).

Pitstructures 29 and 80 (Area 1), as well as some of the pit rooms just to the northeast of these structures, appear to have been burned intentionally at abandonment. Lacking evidence of Basketmaker III trash in the fills of Pitstructure 80 or 29, it appears that they are likely contemporaneous. The fact that both pitstructures and some pit rooms are burned down supports the suggestion that they are roughly contemporary and might have been abandoned and burned at the same time. If the construction of Pitstructure 80 (Area 1) dates to approximately A.D. 638 and we conservatively assign a use-life of 5 to 15 years to these structures and the use of these sites (Schlanger and Wilshusen 1993:87; Varien and Ortman 2005:Figure 3), then it is likely that these structures were abandoned by the late A.D. 650s.

Pitstructure 41 (Area 1) is so poorly preserved that it is difficult to assign it to more than A.D. 625–700. The fact that its roof appears to have been disassembled and that there is some Basketmaker III trash close to its floor suggests that it may have been abandoned prior to the abandonment of the other two structures, but this is by no means certain.

Finally, the construction and use of Pitstructure 114 (Area 1) can only be assigned to the seventh century based on its architectural style and associated artifacts. The fact that it had a burned roof similar to that of Pitstructures 29 and 80 (Area 1) allows for a possible interpretation of a single abandonment of the site in which all standing structures were burned. The location of Pitstructure 114 relative to its pit rooms is also remarkably symmetrical with that of Pitstructure 80 and its storage rooms. The extremely shallow excavation of Pitstructure 114 is common to other sites where secondary, or even possibly seasonal, pitstructures coexist with much larger and more substantial residential structures (Wilshusen 1999a:178). This again would imply it is contemporary with the other two pitstructures. An alternative explanation that would create another pairing is that Pitstructure 114 might be of the same approximate age as Pitstructure 41 (Area 1), given its similar north-south orientation, size, and shape.



## Summary of the Basketmaker III Occupation

Of the four Basketmaker III pitstructures in Area 1 at 5MT3, at least two—Pitstructures 29 and 80—appear to be contemporary and it is possible that Pitstructure 114 is of that same period as well. If this is the case and we assume that there is at least one household associated with each pithouse, then a small residential cluster of at least two and possibly three households was centered at 5MT3 in the mid-seventh century. The two immense Basketmaker III residences at 5MT1 with at least one or two secondary residences date to the last quarter of the seventh century and clearly represent a successive occupation (see [http://cumuseum.colorado.edu/YellowJacket/5MT1\\_stevenson.html](http://cumuseum.colorado.edu/YellowJacket/5MT1_stevenson.html)).

The large floor size, numerous associated exotic materials, and highly structured combination of floor features in Pitstructure 80 (Area 1) all support the interpretation that this structure served as a principal residential structure in this Basketmaker III habitation site. It has an associated group of storage pit rooms that supports the interpretation that the site had long-term food storage and was occupied nearly year-round. The relatively large size of the main chamber, which has 40 sq. m of floor area, is much larger than the approximately 25 sq. m for an average Basketmaker III main chamber. The placement, orientation, and similarity in abandonment of Pitstructure 29 (Area 1) relative to Pitstructure 80 all reinforce that this smaller structure may be the contemporary residence of a household related to the occupants of the larger pitstructure.

The temporal assignments for Pitstructures 114 and 41 (both Area 1) are less well-understood, but at present a reasonable interpretation for Pitstructure 114 is that it represents the residence of a household of the same period as Pitstructures 29 and 80, based on its symmetrical placement to the other two structures and their pit rooms as well as its similar abandonment. An alternative explanation is that Pitstructures 114 and 41 may represent a separate, somewhat earlier, occupation of the site.

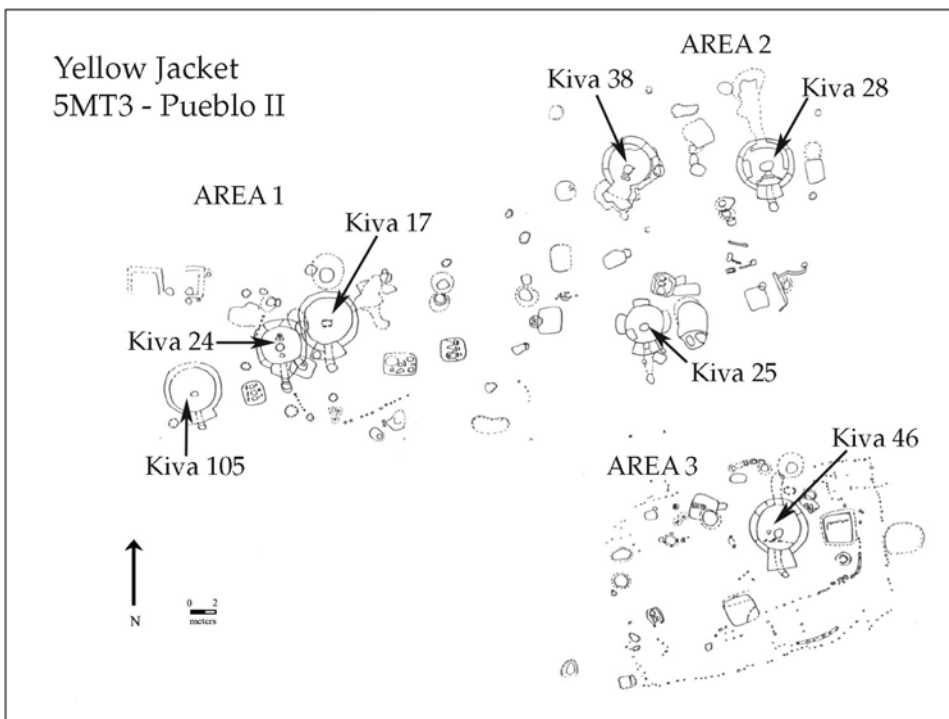
It appears that the Basketmaker III occupation at 5MT3 lasted only a few decades and was followed by an even more substantial occupation at 5MT1. The next occupation of the site was more than 300 years later in the Pueblo II period.

## Chapter 5

### The Pueblo II Occupation, Site 5MT3

Richard H. Wilshusen

There are three elements of construction evident in the Pueblo II architecture at the site. A relatively uncomplicated account of these elements of construction is offered in this report, and yet the Pueblo II period may be archaeologically the most problematic occupation at the site in terms of stratigraphy, remodeling, and site patterning. The heavy remodeling and reuse of the Pueblo II occupation areas in the Pueblo III period made a mess of portions of the Pueblo II features and architecture in certain areas of the site (5MT3, Figure 6). In spite of these impediments there is sufficient preservation and patterning of the Pueblo II architecture in certain areas to isolate architecture and even define distinct residential clusters dating between A.D. 1040 and 1160. This summary is intended to spur additional research on this important occupation at the site.



**5MT3. Figure 6.** Structures associated with the Pueblo II occupation. Only the kivas are numbered in this figure.

The basic architectural units associated with Pueblo II will be described under three different sections, based on their temporal assignments. The earliest Pueblo II architecture at the site is represented by several early kivas and associated subterranean rooms that date possibly as early

as A.D. 1020 to possibly as late as 1060 or 1080. These structures are replaced by residential compounds with kivas centered on post and adobe structures and subterranean rooms arranged around them. This mid- to late Pueblo II architecture probably dates sometime between A.D. 1060 and 1140. The broad range is not intended to mean that these structures are occupied for 80 years. It simply registers the lack of precision in dating these occupations at this time. A final form of architecture is transitional between late Pueblo II and early Pueblo III and is less well defined, but will be at least discussed.

### **Mid-Pueblo II Architecture: The Beginnings**

Two kivas (Kiva 25, Area 2, and Kiva 24, Area 1) may represent the earliest Pueblo II architecture at 5MT3. There are likely exterior features and possibly even some subterranean rooms associated with these structures, but this assessment will require more detailed study. However, based on their stratigraphic position relative to other structures and excavated features at the site, both kivas appear to predate the residential compounds that represent the major portion of the Pueblo II architecture and features at 5MT3. The architectural styles of these early kivas also appear to predate to the architecture of the large residential compounds. There is an arc of large postholes in the area to the south of, and between, the two early kivas that also may also be part of the mid-Pueblo II construction.

#### The Early Kivas and Their Associated Features

##### *Kiva 25, Area 2*

Kiva 25 in Area 2 is remarkably similar in construction design to Kiva A in the Porter Area at 5MT1 ([http://cumuseum.colorado.edu/YellowJacket/5MT1\\_porter\\_early.html](http://cumuseum.colorado.edu/YellowJacket/5MT1_porter_early.html)). It is an unlined (i.e., earthen walled) kiva with three high (1.1 m from the floor) benches that would have functioned like shelves and that define four potential pilaster/roof support areas at the northeast, northwest, southwest, and southeast corners of the structure. The benches are 50 to 60 cm deep and may have served as temporary storage areas similar to a modern house's attic. The kiva has a shallow southern recess area that is similar in shape, height, and construction to the benches. The round main chamber is 3.3 m in diameter and is estimated to have been excavated 1.85 m below the prehistoric ground surface. Based on its design it must have had a square-shaped main roof framework set on the pilasters with smaller roofing timbers covering the shelf areas. The roof would have projected only slightly above the prehistoric ground surface.

Kiva 25, Area 2, has a relatively uncluttered floor with a single central hearth and a mealing bin area on the west side of the structure. The hearth averages 70 cm in diameter and had an ashy fill. The mealing bin area has the impression where a single metate must have rested, a collecting basin at the north end, and a two-hand mano at the southern edge of the bin. The ventilator tunnel extends for 3.4 m and runs under the southern recess. A small, two-course high deflector is plastered into the tunnel just inside where it opens into the main chamber. A possible entry into the kiva is situated just to the southeast of the southern recess. The fill on the floor of the kiva, especially in the southern half, appears to be wall and roof fall; and the 120-cm-thick layer of Pueblo II era trash just above this structural collapse stratum confirms that Kiva 25 (Area 2) was among the first Pueblo II structures abandoned in Area 1.

There are up to six subterranean rooms that might have been associated with Kiva 25, Area 2. One is a mealing room (EU 29, Area 2) that is 2.2 m by 2 m by 1.4 m deep and is just to the north of the kiva. It has three metate impressions with collecting basin areas and a small alcove or entry on its east side. There is also a large, somewhat amorphously-shaped subterranean room (EU 35, Area 2) just to the east of the kiva that is 4.7 m by 3.6 m with a southern shelf. It was not completely excavated and its function is not understood. Four other subterranean rooms are known as probable features that were not fully excavated; one is about eight meters east of the kiva, with the other three possible subterranean rooms five to eight meters to the northwest. There are fragments of post alignments and post and adobe features that are between five to eight meters to east and west of the kiva. It is possible that some of these features represent associated surface structures or enclosing walls, but they are too fragmentary in their exposure and preservation to give details on them in this brief examination.

### *Kiva 24, Area 1*

Kiva 24 in Area 1 is clearly the earliest Pueblo II feature in this area of the site, based on the many later Pueblo II features that were excavated into it after it was abandoned and filled with sediment. It is an unlined kiva with three pilasters preserved out of what probably was a four pilaster roof support system. It has rounded corners, but is more square in shape than later kivas. The main roof beams must have rested on the pilasters and would have formed a square roof on this somewhat rounded structure. The main chamber floor is 3.2 m in diameter on the cardinal axes and 3.6 m on the diagonal. The preserved portion of the bench on the west and north sides of the structure is 40–45 cm wide. A relatively shallow (90 cm) southern recess appears to have been about 2 m across from east to west. The kiva floor is approximately 1.9 m below the project prehistoric ground surface and the bench averages 1.3 m above the floor. The ventilator tunnel extends under the southern recess for and joins the main vent shaft at about 1.6 m. This system would have supplied fresh air for the structure and the means of drawing oxygen in to any fire in the central hearth.

The floor features, as well as the design, of this structure belie its mid-Pueblo II origins. A D-shaped central hearth is almost in the center of the structure, with a shallow basin that may have served as an ash pit between it and the opening to the vent tunnel. A fallen slab at the vent tunnel entrance appears to have served as a deflector or cover for the vent. Just to the north of the central hearth is a mealing bin with a stone slab serving as the metate base. A shallow pit feature at the north end of the bin was interpreted in the notes as a posthole, but may actually have served as a collecting basin for the grinding area. While no metate was found in the structure, a mano was recovered on the floor to the east of the hearth. A small pit between the mealing bin and the north wall was interpreted in the field as a possible shrine or sipapu. Two substantial postholes close to the east wall are aligned such that they likely held posts that served as auxiliary supports for a main beam that would have spanned the northeast to southeast pilasters. A similarly sized posthole in the north of the main chamber may also have held yet another auxiliary post support.

The excavation notes for the structure suggest that the structure collapsed and then had a 30-cm stratum of Pueblo II-era trash deposited. Additional fill and trash covered the structure by the

time Pueblo III rooms were constructed over it approximately 150 years later. Field notes for this structure are primarily under EUs 24 and 41, Area 1.

### **Mid- to Late Pueblo II Architecture: Residential Compounds**

Although they are difficult to discern in the midst of the Pueblo III architecture, there are at least two, and possibly three, mid- to late Pueblo II residential compounds associated with 5MT3. The most obvious and well-preserved of the Pueblo II compounds is the one in Area 3, and it will be described in the most detail because it is relatively intact. There are enough indications of a residential compound in Area 1 to be almost certain of it, but it can not be reconstructed as precisely as Area 3.

Both residential compounds appear to have post and adobe enclosures surrounding each compound with at least one kiva near the center of each one. There are also one to three associated subterranean rooms in each area, which in some cases clearly functioned as mealing rooms. In Area 3 it is obvious that some of the post and adobe construction enclosure was more than a simple stockade and comprised rooms that formed the compound perimeter.

Even though stockaded sites or site compounds are still somewhat unusual in Pueblo II, there are enough other examples in mid- to late Pueblo II contexts in the area north of McElmo Creek—such as Dripping Springs (Morris 1991), Dobbins Stockade (Kuckelman 1988), and Roundtree Pueblo (Morris 1986)—that 5MT3, Area 3 is not as aberrant as was once thought. These enclosed sites are innovations that combine defensibility with increased residential order. They pack a lot of architectural features into a relatively compact space. What is particularly striking about 5MT3 is that there appear to be multiple, potentially contemporary, compounds at the same site.

#### The Area 3 Residential Compound

The Area 3 Pueblo II residential compound is relatively well preserved and laid out in a very distinctive manner. As a consequence it is described in more detail than the architecture in the other two areas. The compound is enclosed by an exterior wall of post and adobe construction that is approximately 20 m (east-west) by 15 m (north-south). This feature forms the back wall of rooms that are up to 3.5 m wide, with the front wall of the rooms facing the interior of the compound's plaza. Kiva 46, Area 3 is a part-masonry, part-earthen, keyhole-shaped kiva. It is in the eastern center of the plaza and surrounded by subterranean rooms on the east, west, and southwest. The possibility of the association of a second kiva (Kiva 73, Area 3) is mentioned later in this discussion, but the structure will not be described in detail. At least two of the rooms (EU 40 and 49) appear to have functioned as mealing rooms, and there is also a mealing area just to the north of the kiva, but in an open-air context. There are at least three, and possibly up to seven, deep storage pits within the plaza (EUs 21, 38/52, 55, 61, 62/72, 67, 80) that may be associated with this component, but much more detailed evaluation of the stratigraphy and excavation notes is needed to determine exact associations. Finally, there are several shallow, and sometimes slab-lined, pit features in the plaza that may also be associated with this component.

### *Kiva 46, Area 3*

The kiva that forms the core of this compound is a keyhole-shaped, deeply excavated structure, with a high bench for storage space and four masonry pilasters for roof supports. It was excavated approximately 2.10 to 2.20 m below the prehistoric ground surface and has a 45 cm wide encircling bench that is 120 cm above the floor on average. The southern recess has maximum dimensions of 1.90 m (north-south) and 2.25 m (east-west), and has a surface just slightly lower than that of the bench. The walls are lined with rock in the areas of the pilasters from almost the floor to what remains of the tops of the pilasters (165-175 cm). In between the pilasters the walls are excavated earthen walls with the exception of the very edge of the bench, which is lined with a course of stone. The lower walls of the structure below the bench, as well as the walls of the southern recess, are masonry lined. All of the walls were covered with a 1-cm thick layer of plaster.

A wall patch on the northern arc of the kiva covered a tunnel entrance that led to a 2 m deep, large bell-shaped cist that is 2 m to the north of the kiva. The tunnel had been also sealed with a wall inside the tunnel just behind the kiva wall, as well as a small wall at the entrance in the cist. The vent tunnel is 2.2 m long and 50 to 60 cm in diameter and is lined with masonry for that portion under the southern recess.

The kiva has a relatively simple set of floor features. There is a wing wall-deflector that divides the southern quarter of the kiva from the remainder of the main chamber. It is made of five large upright slabs and two smaller slabs. The smallest of the slabs is only 10 cm tall and the largest stands 80 cm above the floor. The shortest slabs are the second and sixth in the wall alignment and would have allowed easy access to the southern portion of the chamber from either side of the wing wall. The slabs in the wall are joined together with mortar and covered with plaster. The hearth (70 cm diameter by 17 cm deep) is in the south center of the kiva just to the north of the wing wall. It appears to have been largely cleaned out at abandonment and only had a very thin (2 cm) layer of ash at its bottom. An abandoned, small ash pit just to the south of the hearth had been covered by a triangular rock. An almost identical triangular stone is plastered into the floor at the vent opening into the kiva (not shown on map). A formal sipapu is between the northern arc of the wall and the hearth and is 25 cm deep and has the broken rim of a jar forming the upper 10 cm of the sipapu. The fill of the sipapu was not recorded. An earlier plastered-over pit feature between the sipapu and the hearth was noted but not placed on the map. There are five shallow (3-7 cm deep) depressions in the western half of the structure, which are not on the map, but are recorded in the notes. These may represent pot rests.

Wall features consist of five wall niches and a large storage cist in the wall on the east side of the southern recess. The wall niches are found in north, east, and south walls of the kiva. The cist is approximately 1.1 m in diameter and approximately 60 cm in height. Its floor is 15 cm above the kiva floor and it appears to have been roofed with small timbers that must have been tied into the masonry wall of the kiva. A masonry wall separates the vent tunnel and the cist.

Kiva 46, Area 3, was not abandoned until well into the Pueblo III occupation based on the materials and trash found in it. The kiva abandonment appears to have been intentional and there is some evidence that the roof had been deliberately destroyed to bury the structure. A large

number of slabs and rocks were found on top of the hearth and against the deflector and were interpreted in the field as representing the collapsed entry hatch and framing stones for a roof entry. Small fragments of juniper wood and sage fragments, charcoal, beam impressions 5 cm in diameter and up to 45 cm in length, and pieces of burned plaster were all recorded in the lower layers of the kiva fill. Ultimately portions of the Pueblo III roomblock are built over the northeast corner of the structure, so by mid-Pueblo III it must have been sufficiently filled in with sediment and debris to allow construction in this area.

A number of tools were recovered from the floor or bench, or from the fill just above the floor. Eight manos or handstones and one broken metate were recovered from the western and southern bench or floor surfaces. Numerous sherds from what appear to be potentially reconstructable pots were recovered from just above the floor. Two are corrugated jars, with one potentially being a Dolores Corrugated and the other a Mancos Corrugated. There is also a heavily burned whiteware bowl with a late Pueblo II design style and a small McElmo Black-on-white olla. Other artifacts found on or near the floor or bench include fifteen bone awls or awl fragments, two drilled bird bones, three projectile points, two denticulates or serrated knives, two knife fragments, five stone axes or hoes, and six polished stone pendants. This artifact inventory probably underestimates the items associated with the structure because it is based on field notes and was compiled prior to the comprehensive reinventory of the Yellow Jacket artifacts.

### *Kiva 73, Area 3*

Although Kiva 73, Area 3 is not illustrated as being associated with the Pueblo II compound, there is clearly a vacant area in the compound that matches this pitstructure's placement and so its possible association must be at least put forward. Although the structure was used until the abandonment of the site in Pueblo III, it is quite possible that it could have been used and remodeled multiple times over a hundred year period of time. The fact that the structure has a six pilaster construction negated this as a possible Pueblo II construction in past archaeological considerations, but increasingly archaeologists have realized that six pilaster constructions appear in this locale by at least A.D. 1050 (e.g., Morris 1986). In addition, the lack of masonry lining in the upper walls of the structure, with the exception of the masonry pilasters that project above the bench, is in character with a late Pueblo II kiva. There are two non-cutting tree-ring dates (1101vv and 1136vv) from the structural collapse of the southern recess of this structure. A more detailed examination of the excavation notes, as well as the materials recovered, is warranted in future research.

### *Subterranean Rooms and Storage Pits*

There are subterranean rooms on the east, west, and southwest of the kiva. Two are mealing rooms (EU 40 and 49, Area 3), and there is also a mealing area just to the north of the kiva, but in an open-air context (see EU 21, Area 3). The third subterranean room (EU 28, Area 3) has less evidence of its function, but is similar in size, shape, and construction to the mealing rooms. The subterranean rooms range from 80 cm to 1.2 m in depth and 4.5 to 5.0 sq m in floor area (Mobley-Tanaka 1997). The two rooms with clear evidence of mealing bins have emplacements for two to four, or possibly five, metates. The groundstone tools had been removed from all the rooms with the exception of a single mano and bitted axe on the floor of EU 28. There are also at

least three, and possibly up to seven, deep storage pits within the plaza (EUs 21, 38/52, 55, 61, 62/72, 67, 80).

### *The Enclosing Rooms and Wall*

There are almost 240 postholes that can be associated with the enclosing wall and rooms that define the compound area. The compound area can be conservatively estimated to be 20 m (east-west) by 15 m (north-south). There are relatively few excavation units on the northeast and northwest sides of the compound, because this is also the extent of the Pueblo III masonry pueblo and so few units were placed in these areas. If the wall extended entirely around the compound, then it is likely that there were at least double the number of posts that are presently documented.

The wall appears to have been an adobe and post construction. Evidence of the wall construction was preserved in several locations in the south and southeast walls where the wall had burned. Given that both exterior and interior walls form the compound and there are approximately 115 linear feet of wall, and this is not counting interior dividing walls, this feature represents a tremendous amount of construction effort. The room-like layout of the interiors, with floor areas in the range of seven to fourteen sq. m, are very comparable in size, shape, and construction to other Pueblo II *jacal*, or post and adobe, construction (e.g., Kuckelman and Morris 1988).

### The Area 1 Residential Compound

The Area 1 Pueblo II residential compound is not quite so well preserved or clearly defined as the Area 3 compound, but there is sufficient patterning in the architecture and post alignments to be fairly confident of the overall layout. A single kiva (Kiva 17, Area 1) that is just to the east of and cuts into the fill of an abandoned earlier Pueblo II kiva (Kiva 24, Area 1) is at the center of the compound. There are well over one hundred postholes surrounding the kiva, but they form such a complex—and at times overlapping—pattern that it is likely that there are at least two different, but closely related, constructions. The arrangement of some of the posts, especially to the south of the kiva, suggests enclosed post and adobe rooms may have defined the compound in addition to a simple enclosing wall.

#### *Kiva 17, Area 1*

This kiva has a six-pilaster roof support system and a masonry-lined lower wall. It has a diameter of 3.5 m and was excavated at least 2.0 m below prehistoric ground surface. The 1.1 m high bench averaged 40 cm wide except where the pilasters were built into it. The six pilasters have a relatively crude masonry construction and are not well-preserved. The kiva has a keyhole shape with a southern recess and a ventilator system that has a masonry lined tunnel under the recess surface and joining a vertical vent shaft just beyond the southern edge of the structure.

Floor features are rather spartan, and consist of a small (50 cm by 75 cm) slab-lined hearth, a deflector consisting of two upright slabs, and small pit feature in the southeast corner. A tunnel (EU 14, Area 1) appears to be associated with the late Pueblo II use of the structure with an entry/exit approximately 5 m to the northeast.



The structure appears to date to the late Pueblo II period, even though it is a six pilaster kiva with a lower masonry-lined wall. Research over the last decade has demonstrated that examples of six pilaster kivas are found in this area as early as A.D. 1050 (Lipe and Varien 1999a) and that masonry-lined kivas follow soon thereafter, such that both four and six pilaster kivas can be found between A.D. 1050 and 1150.

#### *Associated Area 1 Features and the Need for Additional Research*

There are a number of Pueblo II subterranean rooms and large pit features in Area 1, and at least two could be directly associated with the residential compound. The mealing rooms, EU 29, Area 1, and EU 30, Area 1, are just to the southeast and the southwest of Kiva 17 (Area 1) and are potentially contemporary with it. These rooms are from 1.5 to 1.8 m in depth and have floor areas of 4.4 to 5.0 sq m. There is evidence of two to three metate bins in the structures, but only the base slabs remained in place in EU 30, Area 1 and two manos and a hammerstone were the only tools left in EU 29, Area 1.

Many of the details regarding the residential compound in Area 1 could be much better defined with some additional study of the field notes and a systematic look at the artifacts from the probable Pueblo II contexts. By combining nearby stratigraphic profiles of various units with detailed artifactual data it would be possible to construct a much more cohesive understanding of the building and abandonment sequences in this area. A comparison of it and the Area 3 residential compound would offer a intriguing view of residential life at a site contemporary with, and just across from, the large Chacoan great house at Yellow Jacket Pueblo (SMT5).

#### A Possible Area 2 Residential Compound

There is much less evidence for a late Pueblo II residential compound in Area 2 than is the case in Area 3, or even Area 1. However, there is sufficient similarity in several of the features and architectural details in Area 2 with the other two areas that the possibility of a residential compound focused on Kiva 28, Area 2, needs to be summarized.

#### *Kiva 28, Area 2*

Kiva 28 (Area 2) has a main chamber floor that is 3.8 m in diameter with a surrounding bench that varies from 35 to 60 cm in width. The structure was excavated at least 2.1 m below the prehistoric ground surface and the bench is set 1.0 m above the floor. The lower wall and the four massive pilasters are all masonry lined, as well as the walls of the southern recess. The structure has a keyhole shape with a southern recess that is 1.1 m (north-south) by 2 m wide (east-west). The ventilator tunnel runs under the southern recess and the vent shaft opening is in the plaza just beyond the recess. There are a total of five wall niches in the structure.

A tunnel connected Kiva 28, Area 2, with a bell-shaped subterranean room (EU 36, Area 2) that is over 3 m to the north of the kiva. The subterranean room is 2.9 m by 2.0 m at its base and deepened an earlier bell-shaped pit so that the 2.1 m deep tunnel joined it. A young female adult and an adolescent were buried at the entrance of the tunnel to the room in a cave-in. Karhu's

(2000) analysis of the skeletons and stratigraphy suggests that the two were excavating the tunnel when it collapsed upon them. The tunnel appears to have been sealed up and abandoned by Pueblo III times, so the cave-in must date to sometime late in Pueblo II or early Pueblo III.

The floor features associated with the kiva include a large (1 m wide) central hearth with a multi-coursed masonry and mortar wing wall and deflector. An ash pit is just to the south of the hearth and extends in part under the deflector to the south of the wing wall. A flat river rock is set into the floor just northwest of the hearth and appears to have been used as a work surface. A small pit feature north of the hearth may have served as a sipapu, but appears to have been filled in prior to abandonment. Finally, two extraordinary pit features almost circumscribe the edge of the floor from the east side to the west. A shallow (15 cm deep) trench that is 1.5 m by 55 cm is set directly next to the west wall of the structure. Although the feature has some similarity to features termed floor vaults (Wilshusen 1989), there is no evidence that it had a wooden roof as is otherwise typical of these features. A small posthole with the rotted remains of a small post is just east of the feature. The second subfloor feature extended around the edge of the wall for 4.5 m from the east wall to the northwest corner of the kiva. As with the western trench feature it was shallowly excavated, but unlike the trench feature, it had been filled in before the abandonment of the structure. Two medium-sized corrugated pots were set into the floor at the northwest and northeast corners such that their upper rims were flush with the floor. One of these pots was within the subfloor carving and the other was situated between the trench or vault feature and the subfloor carving.

Although Kiva 28 in Area 2 appears to have been constructed in late Pueblo II its use continues through at least mid-Pueblo III times. When it is abandoned it appears that it was purposefully collapsed based on the rocks, plaster and rotting wood found in the stratum that covered the floor of the structure.

#### *Other Features and Structures*

While no enclosing wall for a residential compound was discovered in Area 2, the arrangement of features and structures close to Kiva 28 are consistent with a residential compound layout. A mealing room with 3 or 4 mealing bins (EU 69, Area 2), is just to the east of the kiva and appears to be contemporaneous. The subterranean room to the north (EU 36) and connecting tunnel to the kiva (EU 28) in Area 2 together are very similar to the tunnel complex to the bell-shaped cist north of Kiva 46 in the Area 3 residential compound. There are many other Pueblo II era pit features that appear to encircle Kiva 28, Area 2.

A few small sections of burned post and adobe construction five to eight meters south of Kiva 28 in Area 2 that represent the possibility of an enclosing wall. While these small fragments of wall do not make an enclosure, it bears noting that much of the area to the southeast and east of the kiva was not excavated, and those portions to the west and north where a wall might be expected were heavily disturbed by Pueblo III kiva and pueblo construction. So, the possibility of a residential compound, while not clearly demonstrated in Area 2, should at least be considered.

In the cases of the Area 1 and 3 compounds, the kivas within the compounds appear have been used well into Pueblo III and may have provided the architectural and social links that were the

foundation of the Pueblo III pueblo. In a similar manner, Kiva 28, Area 2, appears to have been used into Pueblo III. So, even if the architectural unit centered on Kiva 28, Area 2, may not have had an enclosing wall, it likely served a comparable role as the late Pueblo II residential compounds in Areas 1 and 3.

### **Late Pueblo II Architecture: The “Other” Kivas**

The interpretations of the Pueblo II occupation at 5MT3 are presently tied to only the simplest of patterns in the site layout and stratigraphy. The focus here has been on the mid-Pueblo II structures, which are detectable by their down-to-earth mid-Pueblo II architectural styles, their superpositioning in relation to later structures, and in some cases their organization as courtyard residential units. There remain several other structures and features which by stratigraphy, architectural style, or association appear to date to the late Pueblo II occupation, but which need additional research in order to place them temporally relative to the residential compounds. The other possible late Pueblo II structures and key features will be briefly reviewed by area.

#### Area 2

##### *Kiva 38, Area 2 and Associated Features*

Area 2 has a second late Pueblo II-early Pueblo III pitstructure, Kiva 38. It appears to be contemporary in part with Kiva 28 (Area 2), as they are generally similar in design and construction, and both structures appear to be used into the Pueblo III period. Both are four pilaster, keyhole-shaped kivas with masonry pilasters set on their benches and partial masonry lining.

Kiva 38 (Area 2) has a main chamber 4.0 m in diameter with a 35 to 40 cm wide bench. The bench is 1 m above the floor, with the main chamber floor approximately 2 m below the projected prehistoric ground surface. The southern recess was disturbed by the construction of a storage cist and later construction at the site but is sufficiently preserved to see the kiva's keyhole shape and the masonry lining in the recess. The masonry in the main chamber is on the lower walls and the four pilasters. Excavators counted 11 layers of plaster on the wall, with some of the layers being whitewashed and having geometric designs. There are only two layers of floor plaster. There are four wall niches.

The floor features consisted of a central hearth, ash pit, masonry deflector, an ash-filled pit, and a cluster of five small pits in the area between the hearth and the northern arc of the wall. A subfloor test at the north edge of the floor is also illustrated on the map illustrating the Pueblo II components.

A variety of evidence supports the interpretation that Kiva 38, Area 2, was intentionally abandoned and destroyed. The ash pit and its ashy fill had been capped with an earthen seal and numerous sherds had been inlaid into this cap into an abstract geometric pattern. Several tools, such as two chipped stone drills, were sealed within the feature. It appeared that the structure's roof had been deliberately destroyed as roof fall material and structural stone were throughout the lowest stratum of the structural fill. In addition, a variety of well-made or freshly broken

tools, such as bone awls and very large sherds, were recovered from either this lowest fill or from the stratum just above it, suggesting that very deliberate discard of items or specific debris accompanied the abandonment of the structure. An analysis of the sherds in Kiva 38 fill found conjoining sherds in all levels, suggesting that the kiva was filled quickly with trash and other fill (Granitto 1986).

There are a number of identified, but not fully excavated features and subterranean rooms in Area 2 that may date to late Pueblo II. The potential presence of Kiva 38 in Area 2 should make us at least consider the possibility of it being paired with Kiva 28, also in Area 2. A paired kiva model provides an alternative interpretation for understanding the late Pueblo II site design. This model could be considered in each of the three areas (i.e., Kivas 28 and 38 in Area 2; Kivas 17 and a possible late Pueblo II kiva preceding Kiva 99 in Area 1; and Kivas 46 and 73 in Area 3) once artifact and full stratigraphic records are better known. While a pattern of paired kivas has not been actively discussed for the Pueblo II period in the Mesa Verde region, paired pitstructures are not uncommon in other periods (for example, both 5MT1 and 3 have potentially paired Basketmaker III pitstructures), and the idea should at least be considered.

### Area 3

A second Pueblo II kiva in Area 3 is not formally included in the compound configuration discussed earlier, but as noted, it would be possible to fit Kiva 73 into the compound just four meters to the southwest of Kiva 46. Two tree-ring samples from the roof fall of the southern recess (MTC-63 and 64) yielded dates of 1101vv from a juniper timber and 1136vv from a pinyon timber. While these are non-cutting dates, they cluster with comparable dates from the late Pueblo II stockade in this area. Future researchers should consider whether Kiva 73, Area 3, might be originally built in late Pueblo II-early Pueblo III and used through late Pueblo III.

### Area 1

Kiva 105 (Area 1) is about 8 m southwest of Kiva 17 (Area 1) and is well outside of the residential compound area. In articles (e.g., Malville 1989; Darling 1999) that discuss this structure, its construction and use are placed to approximately A.D. 1025–1050, but based on its construction design, associated ceramic types, and placement within the site, it appears that the kiva is more likely dated to A.D. 1080-1140. The six-pilaster roof support design and masonry-lined upper walls place its construction after about A.D. 1075, and the mix of both unlined and masonry lined lower walls suggest a construction date prior to A.D. 1140. The predominance of Mancos Black-on-white pottery and relative lack of Cortez Black-on-white and McElmo Black-on-white is only broadly diagnostic of a ceramic assemblage dating sometime between A.D 1060 and 1140.

Kiva 105, Area 1 has a main chamber floor that is about 4 m in diameter and an encircling bench that averages 40 cm wide. The southern recess is 1.4 m (north-south) by 2.7 m (east-west). The bench is about 80 cm above the floor surface and the kiva floor appears to have been at least 2.0 m below the prehistoric ground surface. It has a typical group of floor features (central hearth, masonry wall deflector, and ash pit) and a ventilator tunnel that extends under the southern recess to a vent shaft just south of the recess. The structure was heavily disturbed by an event

associated with its abandonment as well as the later construction of Kiva 99 (Area 1) that cut through the northwestern quarter of the structure by mid-Pueblo III.

The last event to occur in the structure appears to have been associated with the death of ten individuals, composed of six adults and four children. The broken, cut, and splintered remains of these individuals were found in the southwestern and western portions of the main chamber and in the ashes of the hearth. Whether this represents the execution of witches (Darling 1999), cannibalism (Malville 1989), or the result of warfare (LeBlanc 1999), a key question for the site history is who the individuals were and why this event is the last use of Kiva 105, Area 1. Fragments of human bone with similar perimortem damage are scattered in the residential compound areas of both Areas 2 and 3 (Karhu 2000), which suggests that this event may be contemporary with the main late Pueblo II occupation at the site.

After the abandonment of the structure, approximately 5 cm of fine water laid sediments were deposited on the floor with 40 to 70 cm of structural collapse on top of this. Patches of water-laid sediments settled on top of this collapse layer with 20 cm of loamy sediment and a large amount of trash filling the remainder of the basin.

## **Burials**

A total of 19 buried individuals are associated with the mid-Pueblo II to very early Pueblo III occupation of the site (Karhu 2000). The majority of these individuals (11) were buried in the midden-cemetery area just south of the dividing line between Areas 1 and 2 and just west of Area 3. One individual was buried in a grave excavated into undisturbed sediments close to this area. Two burials were recovered from abandoned kivas and three were in plaza areas. Ceramic vessels were by far the most common burial furniture. All but one of the burials are single interments.

The final two individuals appear to be the result of an accident. A young adult female and adolescent were buried in the cave-in of a tunnel (EU 23) that connected Kiva 28 and a subterranean room (EU 36) in Area 2. Two additional burials are not included in the totals above, but are from either Pueblo II or III contexts.

The remains of another ten individuals with perimortem damage were recovered from Kiva 105, Area 1, and are discussed under that unit above. These individuals are not counted in the totals discussed here.

## **Chronology**

There are no well-dated contexts or detailed ceramic analyses yet for the Pueblo II components at 5MT3. The dating of the construction and abandonment of the different components is based primarily on general comparisons with other better-dated sites in the region and the stratigraphic superpositioning of different structures and features at the site. There are a few non-cutting tree-ring dates and many ceramic vessels that clearly go with key Pueblo II contexts and these are used as auxiliary data in this report. Additional research on the proveniences of the tree-ring dates in combination with the assembly of site-wide stratigraphic profiles (from individual unit

profiles) almost certainly will allow for more secure temporal placement of the two to three Pueblo II components of occupation.

Researchers have increasingly accepted the interpretation that there is a significant late Pueblo I-early Pueblo II depopulation in the Mesa Verde region (Lipe and Varien 1999a; Wilshusen and Ortman 1999; Wilshusen 1999a), such that sites dating between A.D. 910 and 1020 are very infrequent. Our understanding of early to mid-tenth century changes, even for basic issues such as the ceramic frequencies expected for this period, has changed dramatically in the last decade or so. For example, until recently the introduction of corrugated gray ware was dated to approximately A.D. 900. Analyses now support an introduction date for corrugated style pottery in the Yellow Jacket area of approximately post-A.D. 975 (Scott Ortman, personal communication). The presently available evidence for architecture, ceramic types, site stratigraphy, and tree-ring dates at 5MT3 all lend credence to an interpretation that the site is largely abandoned between approximately A.D. 700 (see the Basketmaker III chapter earlier in this report) and A.D. 1020 or possibly later.

The architectural style of the Pueblo II structures offers some information on their temporal placement, but as more Pueblo II structures have come to light in the last 15 years, an increasing amount of variability in pitstructure styles has been recognized between A.D. 1020 and 1150. The general architectural trends for kivas in this period show a shift from unlined to masonry-lined walls; the replacement of four post or pilaster roof support systems with six masonry pilasters set on a bench; and the development of well-defined, keyhole-shaped southern recesses (Lipe and Varien 1999a:262). Yet, these changes allow only a general placement as to whether a kiva was constructed in early Pueblo II, mid-Pueblo II, or late Pueblo II.

The earliest Pueblo II construction, based on both architectural style and superpositioning evidence, consists of the earthen-walled, four-pilaster kivas in Area 1 (Kiva 24) and Area 2 (Kiva 25). These kivas appear to have potentially associated features and subterranean rooms, as noted in the discussion of the mid-Pueblo architecture, but the details of these associations will require a more comprehensive study of the overall site stratigraphy and the artifacts in the various fill contexts to determine specific associations. Based on an examination of well-dated nearby early to mid-Pueblo II sites (Lipe and Varien 1999a:266–268), a reasonable estimate on the placement of these structures is somewhere between A.D. 1020 and 1080.

They are followed by much more complicated Pueblo II residential compounds in at least two and possibly all three of the main areas at 5MT3. These compounds are centered on kivas that clearly superimpose the earlier structures in several cases. While there are no cutting dates among the many submitted tree-ring samples for the Pueblo II components, the general patterns in the samples can be used to establish minimal construction dates for certain features. Posts within the various compound or stockade walls yielded non-cutting dates that support the interpretation that these mid- to late Pueblo II residential compounds clearly postdate A.D. 1050 and in at least a few cases postdate approximately A.D. 1115 (5MT3. Table 3). It must be emphasized that none of the tree-ring dates represent cutting date clusters. They simply offer a credible lower limit for the construction date of some of these Pueblo II features.

5MT3. Table 3. Datable tree-ring samples, Pueblo II period, Site 5MT3

<b>Provenience</b>	<b>LTRR #</b>	<b>Species</b>	<b>Date</b>
(EU ?, Area 1)	MTC-116	Juniper	845vv
Tunnel associated with Kiva 99, Area 1	MTC-119	Juniper	876+vv
Stockade wall post (EU 52?, Area 3)	MTC-67	Juniper	947vv
Exterior post (EU 27, Area 1)	MTC-115	Juniper	1042vv
Exterior pit feature (EU 40, Area 2)	MTC-124	Pinyon	1048+vv
Wood from plaza fire pit (EU 52, Area 3)	MTC-52	Pinyon	1072vv
Stockade wall post (EU 52?, Area 3)	MTC-70	Pinyon	1078vv
Stockade wall post (EU 52?, Area 3)	MTC-72	Pinyon	1106vv
(EU 18, Area 2)	MTC-122	Juniper	1115vv
Kiva 38, Area 2 (from roof fall in EU 37, Area 2)	MTC-125	Juniper	1117vv
Wall post in plaza (EU 106, Area 1)	MTC-106	Pinyon	1118vv
(EU 18, Area 2)	MTC-120	Juniper	1125vv

When the architecture of the compounds is examined in light of other sites in the region, the temporal range of the residential compounds can be refined somewhat. Pueblo II stockades or residential compounds are documented at Dobbins Stockade as early as the A.D. 1020s or 1030s (Kuckelman 1988) and as late as about A.D. 1080 at Roundtree Pueblo (Morris 1991). Given that until recently many site excavations did not expose wide areas of the plaza it is possible that residential compounds or stockades may be more common and have greater time depth than is presently recognized. Mealing rooms and subterranean rooms such as at 5MT3 are found at Pueblo II sites such as Aulston Pueblo as early as the A.D. 1040s (Morris 1986) and occur at the Pueblo III components of Roundtree Pueblo and Knobby Knee (Morris 1991). The post and adobe surface rooms and four pilaster, unlined, keyhole shaped kivas at 5MT3 are typical of mid-eleventh century architecture in the Mesa Verde region, especially in the area close to Yellow Jacket (Varien 1999b). Only in the latter half of the eleventh century do masonry pilasters begin to appear in kivas, and it is not until the middle of the twelfth century that masonry-lined kivas become predominant (Lipe and Varien 1999b). So, the architectural evidence supports a date range of about A.D. 1050 to 1125 for the main residential compounds. The latest of the Pueblo II kivas that may be incorporated into the Pueblo III roomblocks clearly post-date A.D. 1125.

An important task for any future work at 5MT3 will be to systematically analyze and compare the ceramic materials from key proveniences so that these artifact data can also contribute to the temporal placement of the different components at the site. In this limited site report there has only been time to spot-check the materials in key contexts. The pottery encountered in these spot checks are consistent with materials that are commonly found between A.D. 1025 and 1140 (Lipe and Varien 1999b).

When all of the available temporal information for the mid- to late Pueblo II compounds is compared, an occupation date range of A.D. 1060 to 1140 is the most conservative estimate. If the slightly more precise data for the tree-ring samples, as well as my impressions from looking at a limited sample of ceramic materials, are given greater weight, then a slightly more specific occupation range of A.D. 1080-1140 can be offered for the Pueblo II compounds.

## **Summary of the Pueblo II Occupation**

The Pueblo II occupation begins with the construction of two relatively small and uncomplicated kivas that date to sometime between A.D. 1020 and 1080. Kivas 25 (Area 2) and 24 (Area 1) probably have associated subterranean rooms and storage features, but their layouts are minimal and each kiva at most represents a single household. It is quite possible that each of these structures functioned as independent farmsteads that were occupied at different times sometime within the suggested range of occupation.

A second more substantial component of occupation dates to sometime between A.D. 1080 and 1140 and consists of at least two and possibly three areas of occupation at the site. The best preserved of these areas, Area 3, has a well-designed residential compound with at least one kiva, a number of subterranean rooms and large storage pits, and a surrounding wall with attached post and adobe rooms. It is possible that there was a second kiva associated with the compound, but this needs additional investigation. A second, somewhat smaller residential compound is evident in Area 1 and it clearly postdates the occupation of Kiva 24 (Area 1). Again, at least one kiva, several subterranean rooms and large storage pits, and a surrounding wall with post and adobe rooms make up the complex. It is possible that there is yet another compound that has been obscured by later construction or only partially exposed in Area 2, but teasing out the answer to this question will require additional careful inspection of the field notes. All three of the kivas that are the core of this late Pueblo II construction continue to be used and remodeled well into Pueblo III and appear to affect the layout of the early Pueblo III construction at the site.

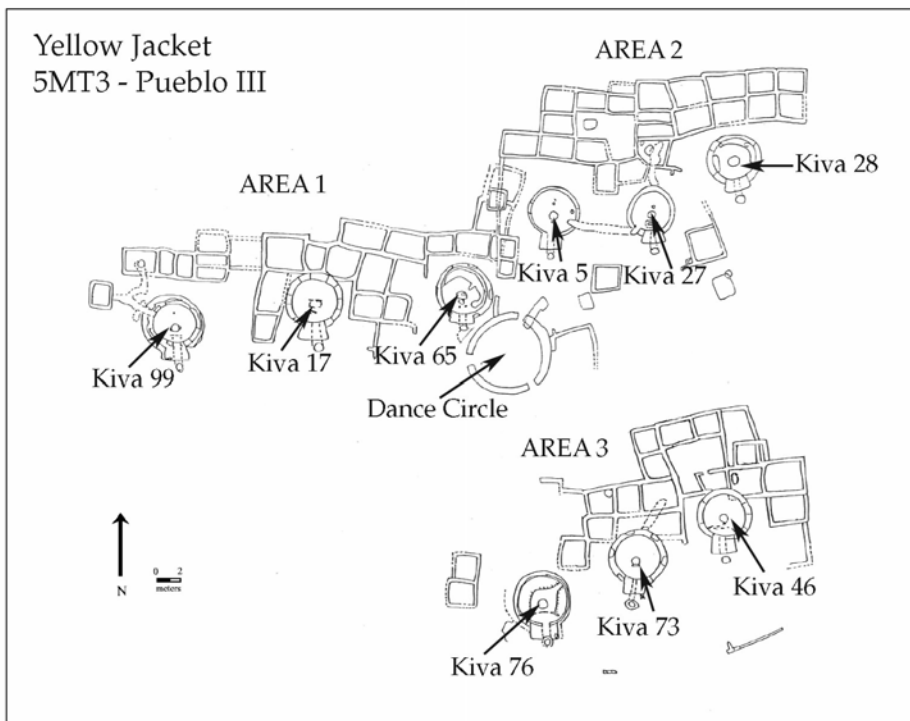


## Chapter 6

### The Pueblo III Occupation, Site 5MT3

Jeannette L. Mobley-Tanaka

The Pueblo III occupation (A.D. 1150-1300) of the site consists of three roomblock-plaza areas, with a total of approximately 60 rooms and nine kivas (5MT3. Figure 7). The occupation areas overlay the earlier Pueblo II residential compounds, with several of the late Pueblo II kivas reused well into the Pueblo III occupation. This short chapter necessarily offers only a very general history of the Pueblo III use and ultimate abandonment of the site.



**5MT3. Figure 7.** Structures associated with the Pueblo III occupation. Only the kivas are numbered in this figure.

Two major construction components have been identified for the Pueblo III period, and it is unlikely that more than one third to one half of the rooms were occupied at any time. In the earliest Pueblo III construction the site consisted of no more than around 10 to 12 rooms and three kivas. In a second component of construction, the site was expanded and much of the earlier architecture was abandoned. This component was later modified by considerable remodeling and architectural expansion, and the complexity of the second component is only alluded to in this summary. For clarity the construction sequence is divided into the early and late architecture at the site. During the final phase of the Pueblo III occupation only 23 rooms and 5 kivas were in use. The site likely was abandoned sometime between A.D. 1260 and 1280.

## **Early to Mid-Pueblo III Architecture: The First Two Components**

The earliest Pueblo III architecture at the site consists of three small roomblocks, each with one associated kiva. They augment the late Pueblo II construction in each of these areas, which appears to be used well into Pueblo III times. The rooms are masonry construction and the kivas are masonry lined and have cribbed roofs supported by six masonry pilasters, as is typical of kivas in the Mesa Verde region at this time. The early Pueblo III rooms in both Areas 1 and 3 are constructed to the side of where the late Pueblo II post and adobe structures. The later Pueblo III structures are then built on the same footprint as the earlier Pueblo II roomblocks are abandoned and razed.

Wheat called the early Pueblo III structures “interim houses,” arguing that they were constructed to the side of the standing Pueblo II structures as a place for people to live while the old roomblock was being razed and a new masonry roomblock was being built in its place. After the new roomblock was constructed the interim houses were typically abandoned or significantly remodeled. The decorated pottery within these interim roomblocks is dominated by McElmo Black-on-white, a type that is most common in the late twelfth and early thirteenth centuries. This and the fact that later architecture sometimes is superimposed on these early structures in both Areas 1 and 2 were among the reasons that Wheat argued this component should be regarded as “interim” or as a means of bridging the Pueblo II and III occupations at the site.

### Area 1 Roomblock

The earliest Pueblo III construction in Area 1 consists of six rooms and a kiva on the extreme eastern edge of the Area 1 roomblock. This complements the preexisting late Pueblo II architecture in this area (Kiva 17 and associated post and adobe rooms). The early Pueblo III rooms have an unusual T-shaped configuration, with two rooms extending to the north, and the remaining rooms oriented in an east-west line just to the north of the kiva. It is not clear whether this is a result of an unusual layout, or whether it is the happenstance result of several remodeling events.

The early Pueblo III kiva in this roomblock (Kiva 65, Area 1) is one of the most striking structures at the site. Wheat called this the Kokopelli Kiva because of a subfloor carving that resembles the bent-back or humped-back flute player seen in rock art. It is one of three kivas at 5MT3 and two kivas at 5MT1 with carved subfloor features. When the kiva was constructed, a curved anthropomorphic figure was carved into the floor level of the kiva, its curved back running along the edge of the kiva across the entire north half of the structure. The image was filled with sandy sediment, then plastered over to construct the kiva floor. The carving would not have been visible during the kiva’s use. This is the only carved subfloor found among the Joe Ben Wheat Complex sites in which the carving is figurative.

This original group of Pueblo III rooms in Area 1 is abutted to the main roomblock built as part of the second component, which suggests that the original rooms remained in use at this time. After these early rooms and kiva were abandoned, they were filled in with trash from the continuing occupation of the site. The sherd counts from this trash fill show high frequencies of

McElmo Black-on-white and very limited amounts of Mesa Verde Black-on-white. Based on this information, it is likely that the first Pueblo III component of architecture in Area 1 was abandoned before A.D. 1200.

Soon after the abandonment of this early Pueblo III construction, a large “dance circle” was built immediately to the southeast of the abandoned Kiva 65 in Area 1. Sometime later a low wall was built that extended north from the dance circle feature and across the remains of the suite of rooms. This clearly indicates that the structures had been partially razed and filled by sometime between A.D. 1200 and 1250.

### Area 2 Roomblock

The late Pueblo II-early Pueblo III component in Area 2 consisted of seven or possibly eight rooms at the western end of the area, and a kiva (Kiva 38, Area 2). These rooms remained in use throughout the Pueblo III occupation of the site, but the kiva was abandoned and filled, and rooms were constructed over it. The preexisting late Pueblo II kiva and a few possible post and adobe rooms (Kiva 28 and associated features) to the east of the new construction may persist into the Pueblo III period, but chronological placement of the abandonment of the post and adobe structures requires more detailed ceramic and stratigraphic analysis than was possible for this report. In any case, it is clear that the earlier rooms were razed and replaced with masonry rooms sometime by mid- Pueblo III.

Kiva 38 (Area 2) is a four pilaster masonry-lined kiva with a large southern recess. A storage cist was constructed into the southeast corner of the southern recess, giving the structure a lopsided appearance. A single dendrochronological sample from the kiva yielded a non-cutting date (A.D. 1117 vv) on a juniper timber, indicating that the kiva was built sometime after this time. As described in the chapter on the Pueblo II occupation, the structure appears to have been deliberately destroyed with features such as the ash pit deliberately capped and the roof potentially caved in. The fill of the kiva contained a mixture of sherds that are characteristic of trash dating to around or shortly after A.D. 1200. The fill of this kiva may have corresponded with the construction of a new Pueblo III kiva (Kiva 5, Area 2) immediately to the southwest. After the earlier structure was completely filled, the area was leveled, and four or possibly five new rooms were constructed over it.

The early rooms at Area 2 remained in use throughout the life of the masonry pueblo, and were added onto in three directions. One room was added to the west, a group of five to seven rooms were added to the east, and the four or five rooms built over the early kiva (i.e., Kiva 38, Area 2) were added on the south. Thus the early Pueblo III rooms at Area 2 became the core of the later Pueblo III roomblock.

### Area 3 Roomblock

The early Pueblo III "interim" construction in the Area 3 roomblock was built just to the west of the preexisting late Pueblo II post and adobe compound and kiva (Kiva 46). The new Pueblo III construction consisted of Kiva 76, Area 3 and two rooms. The rooms are located to the west of Kiva 76 and remained completely detached from the later roomblock. The masonry rooms may

have been built to the west rather than the north of the Pueblo because post and adobe rooms existed in the area north of the kiva at the time of its construction.

Kiva 76 in Area 3 is a masonry-lined kiva with a six-pilaster support system for its roof. It had several unusual features. Rather than a single slab deflector, it had a low masonry wall that extended in an arc from one wall of the kiva to the other, partitioning off the southern portion of the main chamber. This division of space is similar to that seen in the late Pueblo II kiva (Kiva 46, Area 3) in this area. Both Kiva 76 and its associated rooms appear to have been abandoned around the time that the later Pueblo III roomblock was constructed in Area 3. At abandonment, Kiva 76 was filled with a dense layer of rubble with very few artifacts. This fill suggests rapid, intentional filling of the kiva.

### **Late Pueblo III Architecture**

In the mid-late Pueblo III period expanded roomblocks were constructed in the same area as the late Pueblo II post and adobe structures, and at least in the case of Area 3, that were constructed on the same footprint. The footprint of the Areas 1 and 2 late Pueblo II post and adobe rooms are less easily defined, but the Pueblo III structures there at least approximated the location if the not exact footprint of the earlier construction. At least 18 rooms and 4 kivas were added in this component of Pueblo III construction, and much of the early Pueblo III construction appear to have been abandoned around this time. An additional 17 to 20 rooms and one kiva were added later, although whether these represent one or multiple episodes of construction is not known.

Because the late Pueblo III architecture represents the final use of the site, it is easier to define the potential residential use areas for the different households that lived at the site at approximately A.D. 1240 to 1260. I used room construction and abandonment evidence to identify the structures in use during the final occupation of the site. I then was able to define the household use areas for the final site occupation.

### **Late Pueblo III Households**

The fill of late Pueblo III rooms consisted either of artifact-rich deposits of varying thickness, or thin layers of fill containing few artifacts. The rooms with little or no trash in the fill are interpreted as final occupation rooms, in which people continued to live until the final abandonment of the area. The rooms containing substantial layers of artifact-rich fill are interpreted as rooms that were abandoned prior to site abandonment and that were filled with household debris by the occupants of neighboring rooms. The distribution of these two types of rooms created distinct clusters of occupied rooms separated from other clusters by trash-filled rooms. I interpret each of these discrete groups of occupied rooms as the space occupied by a household during the final period of occupation.

The clusters of late-occupation rooms tend to be the most central rooms within architectural blocks that were constructed as a single unit. As a consequence, the masonry in the walls of the rooms typically are bonded (or interlocked) to one another. No household cluster spans two major construction units (although some have a few added or remodeled rooms) suggesting that household space and constructional units correspond. Therefore, I interpret the trash within a

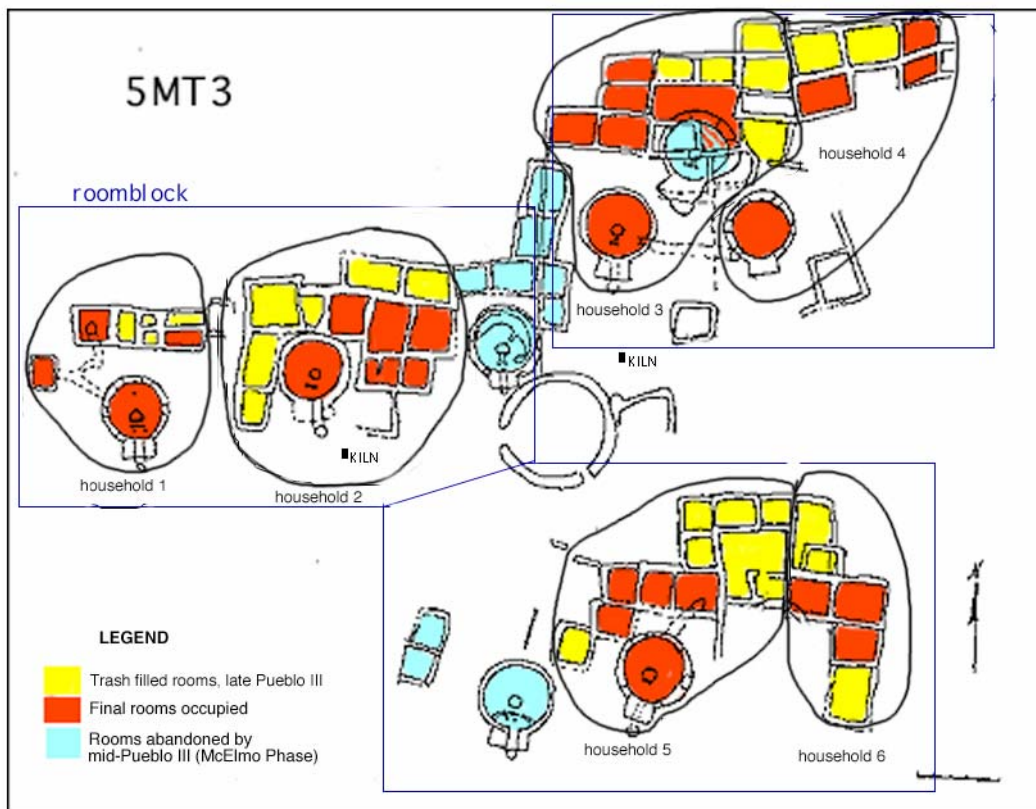
given constructional unit as belonging to the household that occupied that unit and the boundaries between households to be along the lines of the construction units.

Using this method, six discrete occupational areas associated with six late Pueblo III households can be identified (5MT3, Figure 8). The kivas associated with five of these clusters also contain very little trash fill, and collapsed roof material directly overlays their floors. These structures are therefore also interpreted as space used by the late occupation households. The households are described individually below, and listed in Table 4.

In light of the possible paired-kiva arrangement in each of the three Areas during the late Pueblo II occupation, it is interesting to note that during the final Pueblo III occupation there are two households in each Area. This may indicate that the areas were occupied by relatively stable social units across a long span of time. The potential long-term use of a number of kivas in these areas further reinforces this idea.

5MT3. Table 4. Summary of Late Pueblo III Households, 5MT3

Household #	Number of Structures in Use	Trash-filled Rooms
1	2 rooms and 1 kiva	4
2	5 rooms and 1 kiva	6
3	5 rooms and 1 kiva	5
4	3 rooms and 1 kiva	2
5	5 rooms and 1 kiva	6
6	3 rooms	2



A

**5MT3. Figure 8.** Household room clusters and patterns of use and abandonment in the last Pueblo III occupation component.

### *Household 1*

The Household 1 room cluster was the latest set of rooms added to the Area 1 roomblock at 5MT3 and occupies the northwest corner of the site. The group of rooms consists of six above ground rooms, Kiva 99 (Area 1), and a subterranean room that was connected to the kiva and the roomblock by tunnels. This late Pueblo III subterranean room is an unusual structure for this time period. It had no direct entrance from the surface and could only be accessed through a branching tunnel that led to the kiva and to a surface room. The room had no hearth and very few artifacts to indicate how it was used, although it must have been used in conjunction with the kiva.

Five well-defined masonry rooms are just to the north of Kiva 99 in Area 1 and two of these, (Area 1, Rooms 102 and 104) on the east and west ends of the room suite, were in use until site abandonment. Three of the rooms contained trash deposits ranging in thickness from 20-25 cm. Two manos, two metates, and a bone tool were found on the floor of Room 102. No floor contact items were identified in Room 104.

The easternmost room of the Household 1 room group appears to have never been completed, or it may have had a perishable wall on the east. This room, had it been completed, would have connected the Household 1 rooms to the rest of the roomblock.

Area 1 Kiva 99 was a masonry-lined, six pilaster kiva with a southern recess. It partially superimposed Area 1 Kiva 105. A tunnel exited the kiva on the northwest. The tunnel branched, one branch connecting to the surface rooms, the other to the subterranean room discussed above. Numerous artifacts were found on the floor or the bench of the kiva, including six bone awls, three manos, an axe, four hammersontes, two bone tubes, a pendant, two small ceramic vessels, and evidence of a decomposed basket.

The evidence for abandonment suggests that the kiva was deliberately destroyed. The upper portion of the pilasters was dismantled and piled on the floor, and collapsed roof material, including large roof timbers, was collapsed directly onto the floor. Excavators did not note any evidence of burning in the roof or floor artifacts.

### *Household 2*

The Household 2 room group was built in mid-Pueblo III (ca. A.D. 1200-1225) over portions of the late Pueblo II residential compound. An early Pueblo III roomblock just to the east of Household 2 and just north of the dance circle appears to have been abandoned shortly after the Household 2 rooms were built. It is possible that the residents of these soon-to-be abandoned rooms were the builders of the Household 2 rooms. The Household 2 room cluster was constructed in two sequences. First the eastern block of eight rooms and the kiva were constructed, then later the three westernmost rooms were added. When the western rooms were added, a portion of the adjoining room was removed and then the new construction was bonded into the stub walls of that room. For this reason, even though it consists of more than one constructional episode, it is considered to be part of the same household space.

Along with the eastern walls, an L-shaped screening wall was added on the southern edge of the roomblock. The addition of the western rooms and the screening wall almost totally enclosed the Household 2 kiva and screened it from the view of other households.

The Household 2 kiva (Kiva 17, Area 1) is the only late Pueblo III kiva at the site that does not connect to another structure by a tunnel. It also appears to have been originally constructed in late Pueblo II and maintained and remodeled over almost a century of use. The Kiva is described in the late Pueblo II chapter of this report. Kiva 17 was built directly into the remains of a Basketmaker III pitstructure (Pitstructure 41, Area 1). It also partially superimposed a Pueblo II kiva (Kiva 24, Area 1). While the kiva was placed directly over the Basketmaker structure, to the degree that the hearths in the structures overlay each other, the difference in their shapes resulted in kiva walls being built against fill where the shapes did not correspond. There was considerable slumpage of the kiva walls in these areas and the masonry showed evidence of continual repair throughout the use of the kiva.

Floor contact artifacts in Kiva 17, Area 1 included four or five reconstructable vessels, six manos, one of which was placed directly over the hearth, a piece of elk antler, and a small

sandstone disc. Scattered human remains were found throughout the fill of the kiva at about the level of the bench, and may have been the remains of a burial placed on the bench and scattered by the collapse of the roof over it. Excavators noted the remains of unburned beams in the roof fall.

The back rooms of the original eastern room suite and all of the western rooms of Household 2 were filled with 15 to 45 cm of trash fill. A total of six rooms contained trash fill. The remaining five rooms (Area 1, Rooms 1, 16, 19, 20, and 21) remained in use until abandonment. These rooms contained a variety of artifacts on the floors, including three ceramic vessels, eight manos, three metates, three axes, a bone awl, a pendant, two projective points and numerous hammerstones.

Two kilns were found to the south of the Kiva 17 (Area 1) ventilator shaft. One of these kilns dated to late Pueblo II and the other was associated with the Pueblo III occupation. The Pueblo III kiln (Area 1, Feature 39) consisted of a shallow, heavily burned rectangular pit, measuring 88cm along its east-west axis, 112 cm on its north-south access, and 20 cm deep. The upper fill contained burned rocks and a few sherds. The bottom few centimeters of fill was a layer of dense charcoal, identified in the field as representing juniper and sage. The walls and flat floor of the feature were burned "to brick", according to the field notes. The dimensions and fill of this feature is similar to that reported for other pottery kilns in the Mesa Verde region (Bernardini 2000; Blinman and Swink 1997; Heacock 1995). Sherd assemblages around this kiln suggest it was used primarily for firing gray ware pots.

### *Household 3*

Household 3 occupied a group of rooms at the western end of the Area 2 roomblock. These rooms are located just to the northeast of the early Pueblo III roomblock in Area 1, but are clearly delineated from Area 1 by a low dividing wall that ran from the dance plaza at the center of the site to the western edge of the Household 3 room group.

This room group originally consisted of a U-shaped cluster of rooms around Kiva 38, Area 2, similar to the ultimate configuration of the Household 2 rooms. However, early in the occupation of the Household 3 rooms, Kiva 38 appears to have been intentionally abandoned and filled in with early to mid-Pueblo III trash and clean fill. After the kiva was filled, three, or possibly four rooms were constructed over the filled kiva, transforming the U-shaped configuration of rooms into a roughly rectangular block. Severe settling cause slumpage and collapse of these rooms and as a result their floors were unrecognizable at the time of excavation.

Kiva 5, Area 2, was constructed about 2 m to the southwest of the abandoned kiva. Like other Pueblo III kivas at Yellow Jacket, Kiva 5 is a masonry-lined, six-pilaster kiva with a southern recess, central fire hearth, and ventilator/deflector complex. A formal sipapu to the north of the hearth was lined with a white ware jar neck. Kiva 5, Area 2 was connected by a tunnel to Kiva 27, Area 2, which is associated with Household 4. This implies that there was a close association between the two households. Artifacts found on the floor of the kiva include three bone awls, two hammerstones, a corrugated jar, two polishing stone, a projectile point and a pendant. In



addition, a lump of red ochre and a piece of ground stony hematite were also found on the kiva floor.

In the final phase of occupation, at least five rooms and the new kiva remained in use, while six rooms were filled with trash to a depth of 15 to 55 cm. Area 2, Rooms 15, 16, 37, 42, and 48 were occupied until site abandonment. The contained a reconstructable vessel, four manos, four hammerstones, three clay pot lids, two axes, a bone awl, and a gypsum pebble.

One kiln was found in the extramural space directly south of the Household 3 rooms, and was most likely associated with that household. It was located on the edge of an abandoned early Pueblo II period kiva (Area 2, Kiva 25). The kiln consisted on a heavily burned, slab-lined trench measuring 150 cm north-south by 98 cm east west, with a depth of 51 cm. The fill of the feature was consistent with that observed at other Mesa Verde kiln sites (Heacock 1995). Trash deposits from the kiln were clearly definable in the upper layers of the fill in the adjacent kiva, and indicate that the kiln was used in the production of corrugated gray ware.

#### *Household 4*

Household 4 occupied the eastern portion of the House 2 roomblock, in a space consisting of five rooms and a particularly long-lasting kiva (Kiva 28, Area 2), which had been constructed in late Pueblo II or early Pueblo III. The kiva is described in more detail in the late Pueblo II chapter of this report. Two small stub walls extend from the eastern edge of the roomblock, but there was no evidence they were part of enclosed structures or had finished floors. It is not clear whether they represent unfinished rooms or an open air work space. Three rooms (Area 2, Rooms 30, 36, and 47) and the kiva were occupied until site abandonment. Two ceramic vessels, eight manos, a metate, two hammerstones, a bone awl and a pendant were found on the floors of the rooms. Two back rooms contained midden deposits to a depth of 20 cm. As mentioned earlier, the kivas associated with Household 3 (Kiva 5, Area 2) and Household 4 (Kiva 27, Area 2) are connected to each other by a tunnel.

Two free-standing rooms are located to the south of the kivas in Area 2. These rooms could have been associated with either Household 3 or 4, but there is insufficient information presently available to associate them with either household.

#### *Household 5*

Households 5 and 6 occupy the roomblock in Area 3, which was built directly over the outline of the mid- to late Pueblo II post and adobe structure. As is the case with each of Areas 1 and 2, a pair of households in Area 3 endures until the abandonment of the site.

Household 5 occupied the largest space of the two households in Area 3, consisting of nine rooms and Kiva 73. A tunnel connects the kiva to one of the front rooms. Kiva 73 is a six-pilaster kiva that may have originally been built in late Pueblo II times (see the discussion in the Pueblo II chapter of this report), but clearly continued in use through the time of site abandonment. It contained numerous artifacts on the floor and bench, including at least six

reconstructable vessels, 12 bone awls, three serrated flake tools, three small lithic tools, a tchamahia, a fragmentary sandal last, and two pendants.

Rooms 30, 32, 34, and 54, directly north of the kiva, were occupied until the abandonment of the site. Numerous artifacts were found on the floors of these rooms as well, mostly in Room 34, which may have been a storage room. Artifacts associated with these rooms include one ceramic vessel, fourteen manos, three metates, four axes, two bone awls, one pendant, and numerous hammerstones.

The remaining seven rooms in Household 5, consisting of one room on the west and six on the east, were filled with trash deposits to depths ranging from 15 to 60 cm.

### *Household 6*

Household 6 occupied a small household complex, consisting of only five rooms and no kiva. These rooms occupy the eastern end of the Area 3 roomblock. The central three rooms (Area 3, Rooms 14, 35, and 63) were occupied while the outer two were filled with trash to a depth of about 40 cm during the final phase of occupation. Artifacts in the occupied rooms include a reconstructable vessel, a groundstone slab, an axe, and a number of black stone beads recovered from the hearth of Room 14. The small size, relatively small number of artifacts, and lack of a kiva may indicate that this was a small or relatively unimportant household, or alternatively, that it was a satellite household to Household 5.

Household 6 repeats a pattern seen in the other two areas, with the smaller households being on the exterior of the site. The interior households such as Households 2, 3, and 5 are all arrayed around a key architectural feature that Wheat considered a shared community facility.

### *The Dance Circle*

Late in the Pueblo III occupation an unusual communal structure was built at the center of 5MT3. This structure, called the Dance Circle by Wheat, consists of a low, circular wall, enclosing an area with a use-compacted floor. The structure is not quite a perfect circle and ranges in diameter from 6.0 to 6.25 m, making it the largest Pueblo III structure on the site. The wall was only about 50 cm in height, and there is no evidence the structure was never roofed. Openings in the wall provided access toward the three Pueblo III roomblocks.

A low wall extends north from the dance circle to the western edge of Area 2 and created some delineation between Areas 1 and 2. This wall is constructed over the remains of early Pueblo III architecture (A.D. 1150-1200), which contained Mesa Verde Black-on-white sherds in the fill. This places the construction of the wall and the dance circle after A.D. 1200. The wall and dance circle represent both integrative and boundary marking activities on the site in late Pueblo III times. The dance circle is an unusual feature, following the pattern of construction of unusual, new forms of public architecture observed in late Pueblo III villages such as Sand Canyon Pueblo and elsewhere (Lipe 2002).

## **Burials**

There were 60 burials at 5MT3 that dated to the Pueblo III period (Karhu 2000). Unlike the earlier Pueblo II burials, the majority (42 out of 60) of the Pueblo III burials were found in rooms or in sub-floor pits in rooms. This difference is probably due in part to the availability of abandoned masonry rooms in late Pueblo III times, as compared to earlier times. Five burials were multiple interments, and represent all but one of the multiple interments found at 5MT3. The remainder of the burials consists of single interments, but many were found in the same or nearby rooms. A dense cluster of burials is particularly evident in the back rooms of Household 2. This household was built around Kiva 27, Area 1, which was originally built as the central kiva in the late Pueblo II compound in Area 1. The implication may be that Household 2 was one of the central and longest-established households at the site, and the clustering of burials in their space may be an indication of their important kin ties at the site.

In addition to back rooms, ten burials were found in abandoned features near structures, and the remaining 8 were found in midden areas. About half of the burials were those of children, and half were adolescents or adults. Nearly all burials contained grave goods, the most prominent type of grave good was ceramic vessels. The burials are described in detail in Karhu 2000.

## **Chronology**

The earliest Pueblo III architecture at the site is associated with assemblages where McElmo Black-on-white is the dominant decorated ceramic type, which is characteristic of the A.D. 1140–1180 period (Lipe and Varien 1999:315). Dendrochronological dates for the parts of the site that have the transitional Pueblo II to III construction include five samples all clustering between A.D. 1115vv and 1125vv. Although all five dates are from very weathered wood and do not represent cutting dates, the clustering of the dates and the dominant association of McElmo Black-on-white ceramics with this earliest Pueblo III architecture suggest the first Pueblo III construction took place between A.D. 1140 and 1180.

Later Pueblo III structures may have reused wood from the earlier abandoned architecture and have not been able to be dated with the limited dendrochronological samples from 5MT3. The marked predominance of Mesa Verde Black-on-white in later Pueblo III contexts suggests that the occupation extended well into the thirteenth century. Of 17 intact or reconstructable white ware vessels found in the rooms at 5MT3, all but two were Mesa Verde Black-on-white, which is typical of late Pueblo III pottery assemblages (Lipe and Varien 1999; Mobley-Tanaka 2005).

Based on an analysis of assemblages in final occupation rooms at 5MT1, 5MT2, and 5MT3, Mobley-Tanaka (2005) has suggested that the site's occupation continued along with that of nearby Yellow Jacket Pueblo (5MT5). It is likely that 5MT3 was not abandoned until Yellow Jacket Pueblo was in decline after A.D. 1260.

Mobley-Tanaka (2005) used the criteria developed by Crow Canyon Archaeological Center researchers to evaluate the site abandonment at 5MT3. They developed a set of expectations to try to understand how far households were moving upon abandoning a particular site (Varien et al. 1992:46). For short distance moves within the region the archaeological expectation was that

construction timbers would be removed from surface rooms and kivas and all or most usable tools would be removed from rooms, including even heavy or fragile household items (e.g., grinding stones and ceramic vessels). Similar patterns of artifact distributions have been used to elucidate the nature of site abandonment elsewhere in the American Southwest as well (Montgomery 1993). The removal of items that were heavy or awkward to carry suggests that residents moved only a short distance and were able to take these items with them. This pattern contrasts with regional abandonment, characterized by long-distance moves. In the case of a regional abandonment, archaeologists would expect to find evidence that timbers were left in roofs, and numerous usable artifacts, especially if were heavy or fragile, were left behind on the floors of rooms.

Both evidence of collapsed roofs and the presence of significant numbers of usable goods suggest that Site 5MT3 was in use through the last era of Puebloan occupation in the region. A variety of usable tools, including grinding stones and whole or reconstructable ceramic vessels were found on the floors of structures in all household room groups used in this analysis (5MT3. Table 5). The number and distribution of vessels at 5MT3 is comparable to those documented by Montgomery (1993:158, figure 12.2) at late abandoned rooms at Grasshopper Pueblo in Arizona, where a majority (59%) of late abandoned rooms had between 1 and 10 vessels on the floor. In addition to artifact evidence, the presence of traces of roof beams in a majority of the kivas associated with late households at 5MT3 further suggests that the site was not abandoned prior to Yellow Jacket Pueblo. Kuckelman (2003) has proposed that Yellow Jacket Pueblo was in decline after A.D. 1260, and may have been abandoned by A.D. 1280 or shortly thereafter.

5MT3. Table 5. Floor Contact Artifacts and Roof Timbers in Late Occupation Households, 5MT3

Household	Vessels	Small Artifacts	Groundstone	Evidence of Kiva Roof Timbers
1	2	16	18	Yes
2	7	22	40	Yes
3	3	20	4	No
4	11	35	30	No
5	9	37	17	Yes
6	1	13	5	not applicable

Note: Artifact numbers and timber evidence compiled from original field catalogues and field notes, on file at the CU Museum, Boulder, CO.

## Chapter 7

### Concluding Remarks

Richard H. Wilshusen

Joe Ben Wheat invested 17 field seasons in the field investigations at Site 5MT3. His research revealed a complicated site history with three occupations superimposed on the same site. This work complemented his previous fieldwork at 5MT1 and was augmented by excavations one of his students did at 5MT2. Altogether his research offers an astonishing amount of research on the middle Basketmaker III, mid- to late Pueblo II, and Pueblo III occupations in the geographic center of the Mesa Verde region. Given that the Joe Ben Wheat Site Complex is just to the west of Yellow Jacket Pueblo (5MT5), it is possible that by late Pueblo II and Pueblo III, the sites are in the sociopolitical center of the region as well.

The report we offer here is meant to only briefly summarize the work that Wheat did at 5MT3. We expect that it will lead to the detailed artifact analyses and careful reexamination of the formation of the site's record to evaluate our preliminary conclusions. The record for 5MT3 includes over 30 notebooks of field notes and maps, hundreds of slides, and approximately 200,000 artifacts. The extensive research records and collections of 5MT3, as well as the related sites of 5MT1 and 2, offer innumerable research opportunities, especially for the kind of focused studies that typically lead to MA theses or doctoral dissertations.

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