

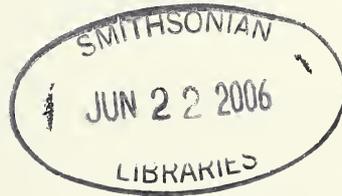
2
11
L52X
NH

NUMBER 508
8 JUNE 2006

CONTRIBUTIONS IN SCIENCE

SHUMWAY RUIN AND THE LATE PRE-HISPANIC
PERIOD IN EAST-CENTRAL ARIZONA

SCOTT VAN KEUREN



Natural
History
Museum
of Los Angeles County

SERIAL
PUBLICATIONS
OF THE
NATURAL HISTORY
MUSEUM OF
LOS ANGELES
COUNTY

The scientific publications of the Natural History Museum of Los Angeles County have been issued at irregular intervals in three major series; the issues in each series are numbered individually, and numbers run consecutively, regardless of the subject matter.

- Contributions in Science, a miscellaneous series of technical papers describing original research in the life and earth sciences.
- Science Bulletin, a miscellaneous series of monographs describing original research in the life and earth sciences. This series was discontinued in 1978 with the issue of Numbers 29 and 30; monographs are now published by the Museum in Contributions in Science.
- Science Series, long articles and collections of papers on natural history topics.

Copies of this publication are available through the Scholarly Publications Office at 213/763-3330 or by visiting our website at (<http://www.nhm.org>) for a PDF file version.

SCIENTIFIC
PUBLICATIONS
COMMITTEE

John Heyning, Deputy Director
for Research and Collections
John M. Harris, Committee Chairman
Brian V. Brown
Joel W. Martin
Xiaoming Wang
K. Victoria Brown, Managing Editor

NATURAL HISTORY MUSEUM
OF LOS ANGELES COUNTY
900 EXPOSITION BOULEVARD
LOS ANGELES, CALIFORNIA 90007

Printed at Allen Press, Inc., Lawrence, Kansas
ISSN 0459-8113

SHUMWAY RUIN AND THE LATE PRE-HISPANIC PERIOD IN EAST-CENTRAL ARIZONA

SCOTT VAN KEUREN¹

ABSTRACT. Shumway Ruin is a large Ancestral Pueblo settlement in east-central Arizona occupied during the fourteenth century A.D. The settlement was one of six villages in the Silver Creek drainage established during a phase of community reorganization throughout the North American Southwest. A new architectural map shows that the village was composed of several contiguous room blocks built around two major plazas and a smaller plaza or possible great kiva. Excavations in one of the large plazas and two nearby rooms demonstrate that Shumway Ruin was one of the latest occupied Pueblo villages in the region and was a possible producer of iconographic-style red ware pottery.

At the close of the thirteenth century A.D., Ancestral Pueblo communities in the Silver Creek drainage, Arizona, underwent an important phase of settlement reorganization. Earlier small villages were abandoned and populations aggregated at six large towns (Figure 1). These sites set a new threshold in community size, the scale of extramural ceremonial spaces (or plazas), and perhaps commitment to intensive agriculture in the drainage (Kaldahl et al., 2004). One or more of these villages also began to produce a new iconographic-style red ware pottery type (Fourmile Polychrome) depicting birds, zoomorphic figures, and other symbols (Table 1; Carlson, 1970). The appearance of this ceramic type presumably signals the emergence of new religious beliefs at a time when ceremonial spaces expand in size (Adams, 1991). These changes in the Silver Creek area reflect broader cultural transitions that marked the beginning of the Pueblo IV period (A.D. 1275–1540) in the greater Southwest. This paper documents new fieldwork at Shumway Ruin (AZ P:12:127 ASU), one of the largest of the six latest Silver Creek Pueblo villages and one of the last intact archaeological sites from the area that was occupied during the period in which changes in community organization, craft economies, and the composition and scale of ceremonial spaces occur. Other Pueblo IV period sites have been largely destroyed by looting or the expansion of modern settlements. In this report, I summarize excavations conducted in 2002 and provide the first accurate architectural plan view of the village. This work sheds new light on the timing and occupational history of this important area of the Ancestral Pueblo world and represents the first step in a long-term research project in the area.

1. Department of Anthropology, Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, California 90007, USA. Email: scottv@nhm.org

RESEARCH BACKGROUND

Shumway Ruin is located along the northern Silver Creek, a tributary of the Little Colorado River in east-central Arizona north of the Mogollon Rim (Figure 1). The village lies along the Mogollon Slope, a natural gradient at the edge of the Colorado Plateau in which drainages flow from the edge of the Mogollon Rim north to the Little Colorado River. Today, private landholdings account for much of the northern Silver Creek drainage, while most of the southern half of the drainage lies within the Apache and Sitgreaves National Forests. In this contribution, I outline the late pre-Hispanic cultural sequence in the northern Silver Creek drainage and review the history of research at Shumway Ruin and nearby Pueblo IV period sites before presenting the results of recent fieldwork.

THE LATE PRE-HISPANIC PERIOD IN THE SILVER CREEK DRAINAGE

Archaeological sites in the Silver Creek area span a broad time range, beginning with evidence for Paleo-Indian and Archaic period occupations and extending through the arrival of Apache groups during the proto- and early-Historic periods (see Lightfoot, 1984; Newcomb, 1999). Shumway Ruin is one of a handful of Ancestral Pueblo sites in the Silver Creek area established at the beginning of the Pueblo IV period (1275–1540; see Table 1). This period of aggregation and appearance of large towns marked the last phase of permanent Pueblo habitation in this part of the upper Little Colorado River valley (Kaldahl et al., 2004). Shumway Ruin and other late pre-Hispanic population centers discussed in this report belong to the broader Western Pueblo region (Reed, 1948); the people who occupied these sites were ancestors of the Hopi, Zuni, and other modern Native peoples.

SILVER CREEK DRAINAGE
ARIZONA

- Pueblo III period village
- ◆ Pueblo IV period village
- Modern town

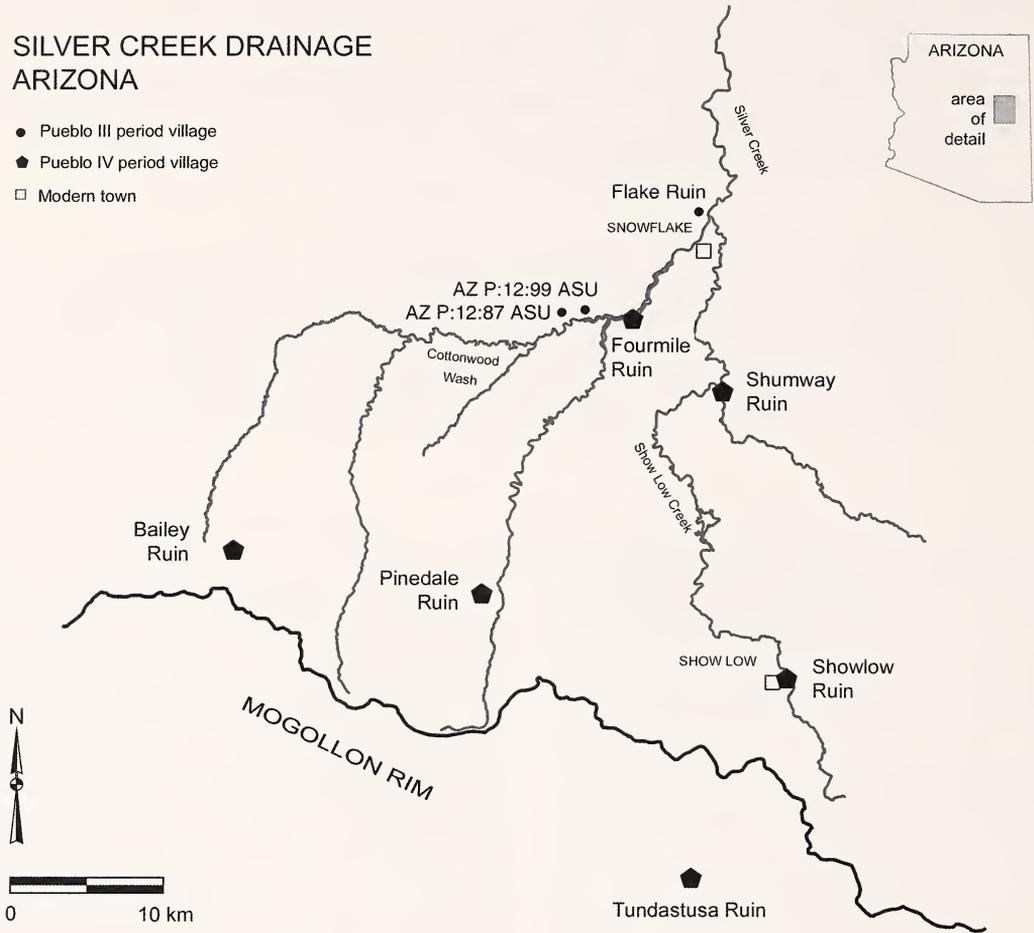


Figure 1 Archaeological sites in the Silver Creek drainage, Arizona

Pueblo peoples in the Silver Creek drainage lived at a series of small, dispersed villages near the close of the thirteenth century. Most of these sites are contemporaneous with Linden Phase villages to the south and were occupied prior to the appearance of Pinedale-style ceramics (see Mills and Herr, 1999). Aside from the University of Arizona’s recent work at sites in the southern Silver Creek drainage (Mills et al., 1999b), few of these thirteenth century villages have been excavated or documented. Many of the mid- to late-

thirteenth-century villages in the northern Silver Creek drainage recorded by previous surveys (e.g., Lightfoot, 1984; Neily, 1988) resemble contemporaneous villages in the Hay Hollow Valley to the east (see Martin et al., 1964, 1975). In the northern part of the drainage, these villages range between 20 and 50 rooms with contiguous room blocks built around small plazas or possibly great kivas. In 2002, my crew relocated and mapped Flake Ruin and AZ P:12:87 [ASU], two northern Silver Creek villages dating to this period. Both

Table 1 Chronological sequence of the Silver Creek area

Dates (A.D.)	Period	Phase	Diagnostic pottery style	Major sites
1200–1275	Pueblo III	Linden	Snowflake, Reserve/ Tularosa, and Tularosa styles	Flake Ruin; AZ P:12:87 ASU; AZ P:12:99 ASU
1275–1325	Pueblo IV	Pinedale	Pinedale style	Bailey, Pinedale, Showlow, Fourmile, Shumway, and Tundastusa ruins
1325–1390	Pueblo IV	Canyon Creek	Fourmile and Gila styles	Pinedale, Showlow, Fourmile, Shumway, and Tundastusa ruins

share the same basic architectural layout as Broken K Pueblo (Hill, 1970), with contiguous room blocks enclosing a small central plaza. The ceramic assemblages of these villages include Reserve/Tularosa-, Tularosa-, and Snowflake-style Cibola White Ware, along with minor amounts of both Showlow Black-on-red (Puerco Red Ware) and early Pinto Black-on-red (Roosevelt Red Ware). These decorated assemblages indicate that the occupation ended at or around the appearance of early Pinedale-style pottery, perhaps by the 1270s or 1280s based on the dating of Pinedale-style Roosevelt Red Ware elsewhere (Montgomery and Reid, 1990). Unfortunately, three to four other Pueblo III period sites in the northern Silver Creek drainage were bulldozed by looters prior to the 1990s, and it is now impossible to characterize the layout or artifact assemblages of most of the early plaza-oriented sites that immediately pre-date the aggregation of Shumway Ruin. It is probable that many of the fourteenth-century villages began as smaller thirteenth-century pueblos similar to AZ P:12:87 [ASU] and Flake Ruin. These earlier occupations are presumably obscured by later construction.

The production of Pinedale-style pottery in the Silver Creek drainage is associated with the first phase of population resettlement into large enclosed-plaza towns (Mills and Herr, 1999), local changes that mirror settlement shifts across the southern Colorado Plateau by 1300 (Adams, 1989; Adams and Duff, 2004; Bernardini, 1998; Cordell et al., 1994). In the southern Silver Creek area, large pueblos include Showlow Ruin, Bailey Ruin, Pinedale Ruin, and Tundastusa Ruin (the latter site is just south of the Mogollon Rim in the Forestdale Valley). Shumway Ruin and Fourmile Ruin were established in the northern part of the drainage. By the first decade of the fourteenth century, most Pueblo peoples in the area were living at one of these six towns. All range in size between 250 and 500 rooms (Kaldahl et al., 2004; Mills, 1998), with contiguous room blocks that fully or partially enclose one or more plazas. There is evidence that many of these Silver Creek settlements welcomed immigrants from adjacent parts of the northern Southwest during the early fourteenth century (Johnson, 1992; Mills, 1998).

A second phase of aggregation began in early fourteenth century with the expansion of existing villages (Table 1). This period of village expansion roughly coincides with the appearance of Fourmile-style White Mountain Red Ware during the 1320s (Carlson, 1970). This new iconographic style marks the cessation of Pinedale-style pottery production, and it was around this time that very large plazas were constructed at Fourmile and Shumway ruins and possibly at Pinedale and Showlow ruins. In the southwestern part of the drainage, Bailey Ruin was abandoned. Presum-

ably, its occupants either joined one of the five other villages in the drainage or moved out of the area. It is also at this time that there is clear evidence for the arrival of migrant groups at one of the remaining villages, Fourmile Ruin (Johnson, 1992). Shumway Ruin was part of this cluster of large Pueblo towns that were first established in the late 1200s and then expanded by the early to mid-1300s. The second phase of aggregation in the area was short lived, and there is no evidence of residential Pueblo occupation after 1400. Indeed, the latest tree-ring cutting date of 1384 at Showlow Ruin suggests that the decline of these villages began in the last quarter of the fourteenth century (Mills and Herr, 1999).

PREVIOUS RESEARCH

Archaeological work in the northern Silver Creek drainage began a century ago with Adolph Bandelier's (1892) reconnaissance in the area, followed by Jesse Walter Fewkes's (1904) collections-motivated excavations at Fourmile and Pinedale ruins in 1897 and Walter Hough's brief visit to Shumway and Tundastusa Ruins in 1901 (Hough, 1903:302). Leslie Spier (1919) later visited the area and published the earliest sketch map of Fourmile Ruin. A few decades later, Emil W. Haury and Lyndon L. Hargrave conducted the first professional excavations at Pinedale Ruin and other fourteenth-century villages in the Silver Creek drainage as part of the Third Beam Expedition (Haury and Hargrave, 1931). With the exception of Haury and Hargrave's work, most early excursions were brief and poorly documented, geared toward the recovery of painted pottery to populate the culture area exhibits of major museums.

Following up on Spier's (1919) early reconnaissance in the region, Kent Lightfoot assembled the most comprehensive settlement survey data in the northern part of the drainage in the 1970s (Lightfoot, 1981, 1984). In one of his three large survey blocks, the Snowflake Study Area, Lightfoot recorded cultural resources in the vicinity of Shumway Ruin in the northern Silver Creek drainage. Despite early debates on the contemporaneity of settlements in the region (see Lightfoot and Most, 1989), his survey data demonstrate that the shift from small to large villages occurred at the close of the thirteenth century. Although fourteenth-century groups probably continued to utilize field houses and limited activity sites, there is no substantive evidence for the habitation of villages outside of the handful of towns mentioned earlier. Because several key thirteenth-century villages have been entirely bulldozed by looters since Lightfoot's (1984) survey 25 years ago, his settlement data and surface collections remain crucial to understanding settlement changes in the region during the early Pueblo IV period.

Despite the paucity of work in the northern Silver Creek area, recent research in the southern half of the drainage by the University of Arizona's Silver Creek Archaeological Research Project, particularly at Bailey Ruin, has begun to answer important questions about the social and economic organization of Pueblo settlements in the Silver Creek area prior to 1330. A number of published and unpublished surveys conducted in the Sitgreaves National Forest and adjacent areas provide additional settlement data (Neily, 1988; Newcomb, 1999).

SHUMWAY RUIN AND THE PREHISTORY OF THE SILVER CREEK DRAINAGE

Despite recent archaeological work, we still know very little about the early Pueblo IV period in the Silver Creek area, particularly during the phase of settlement aggregation and village expansion after iconographic-style White Mountain Red Ware and large plazas appear. Because of rampant pot hunting and vandalism and the location of key sites on private land, this cultural landscape remains largely inaccessible to archaeologists. Many of the Pueblo IV period towns either are now entirely destroyed (such as Showlow Ruin) or were greatly disturbed by heavy machinery in the past few decades (Fourmile and Pinedale ruins). Shumway Ruin is mostly intact, and archaeological work at this site is essential to answering questions about the timing, structure, and cultural composition of late pre-Hispanic communities in this region.

Preliminary evidence suggests that the settlement system, architectural layout, and possibly even cultural affiliation varied greatly within the drainage (Lightfoot, 1984; Van Keuren, 2001), perhaps because of historical circumstances of migration and trading ties between specific Silver Creek villages to contemporaneous towns outside the drainage. The fieldwork at Shumway Ruin thus attempted to answer several key questions: How large is the village, and what public architecture is present? Does the layout of the village resemble nearby Fourmile Ruin and other late Silver Creek villages? When was the site occupied based on decorated pottery? Is White Mountain Red Ware the predominant painted pottery at the site, and how abundant is Roosevelt Red Ware and other decorated wares (e.g., Jeddito Yellow Ware)? Is there architectural or ceramic evidence for the settlement of migrant groups at Shumway Ruin (as there clearly is at Fourmile Ruin)? And finally, what is the basic occupational history of the village, based on the configuration and layout of room blocks and extramural spaces? In the sections that follow, I detail the excavation and architectural evidence collected in the 2002 field season.

RESULTS OF THE 2002 FIELD SEASON AT SHUMWAY RUIN

Shumway Ruin sits atop a sandstone outcrop near the confluence of the Show Low and Silver creeks, at an elevation of 1738 m (5701 feet). Today, the surrounding area is piñon-juniper woodland mixed with short grassland communities ranging in elevation between 1700 and 1900 m. This arid environ receives less than 14 inches of rainfall annually (Kaldahl and Dean, 1999); the bulk of this moisture is delivered by late summer storms. The site is roughly bisected by a fence line that delineates two separately owned parcels of land near the small town of Shumway, Arizona. Shumway Ruin is situated adjacent to one of the largest and most well-watered expanses of agricultural land in the drainage. Although a modern canal cuts through the southeastern edge of the site and a portion of the northern edge of the site was bulldozed in the 1980s, the village is well preserved.

Mapping and excavation at Shumway Ruin were conducted between April and June 2002. Our first effort focused on the collection of architectural data for use in drafting a plan view and reconstructing the settlement history and growth of the village. The second goal of the field season was to excavate intact and undisturbed contexts. This report provides a preliminary tabulation of all recovered ceramics, which clarifies the timing of occupation and the cultural identity of the village's occupants. Future analyses of macrobotanical, faunal remains, and pollen samples recovered during this field season will shed light on the subsistence base and economic organization of the settlement.

Architectural data were recorded with a Nikon DTS-330 Total Station and referenced to a primary site datum. The village includes two major room blocks referred to here as the southern and northern room blocks (Figure 2). Two rooms and one extramural space were tested. Room 1 is located in the southeastern section of the large southern room block. The room lies within a double row of rooms that defines the southeastern boundary of the large Plaza 2. Room 3 is located in the eastern edge of the northern room block, among rooms that lie along the southeastern edge of Plaza 1. A third room designated as Room 2 during the field season was not excavated beyond initial wall tracing. An additional 1- by 2-m unit was excavated in the southwestern half of Plaza 1.

To ensure that data would be comparable with recent work in the region, I adopted with slight modifications the field methods and recording systems utilized by the Silver Creek Archaeological Research Project (Van Dyke et al., 1996). Rooms were tested by excavating a single quadrant and removing fill from discrete vertical units,

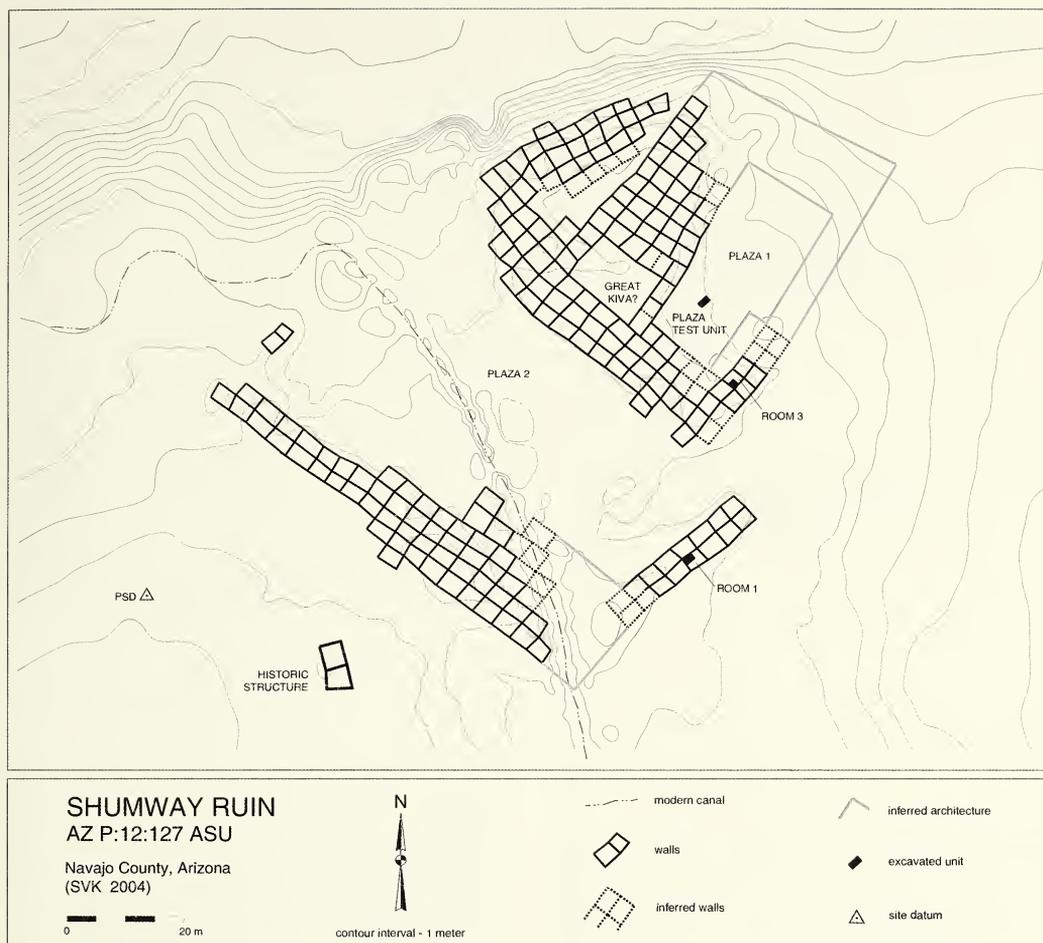


Figure 2 Architectural plan view of Shumway Ruin

either full strata (e.g., upper room fill composed of structural collapse) or 10-cm arbitrary levels (e.g., lower room fill just above floor). The plaza test unit was excavated in 10-cm arbitrary levels down to sterile natural bedrock. All excavated fill was screened through one-quarter-inch mesh, and artifacts were bagged according to material type. Soil flotation samples were collected from all excavated strata, and pollen samples were collected from floors exposed in the room test units. All test units were mapped, documented, photographed, and completely backfilled at the close of the season.

VILLAGE ARCHITECTURE AND LAYOUT

Although early explorers in the region reported seeing partially standing walls at ancient ruins (e.g., Bandelier, 1892), most archaeological sites have long since been reduced to rubble mounds of collapsed masonry, structural fill, and cultural refuse. At Shumway Ruin, there are no standing or exposed walls outside of those in recently

disturbed areas of the site. Fortunately, the visibility of room alignments, masonry wall abutment and bonding patterns, and other architectural evidence allow for both the mapping of architecture from the modern ground surface and the analysis of construction sequences. In his early sketch map of the entire village, Hough (1903) illustrated approximately 50 rooms surrounding a small plaza (Figure 3). At its peak of occupation, however, the village may have included as many as 350 to 400 masonry rooms, including two-story rooms in the northern room block. The destruction of a portion of the northern room block makes an exact room count estimate impossible. Rooms throughout the site are generally rectangular and range in area from 8 to 14 square meters. Walls were constructed of carefully faced and shaped sandstone blocks, presumably wet-laid with mortar and chinking stones. Although adobe brick construction is prevalent at nearby Fourmile Ruin (Johnson, 1992), there is no evidence of this type of construction material at Shumway Ruin.

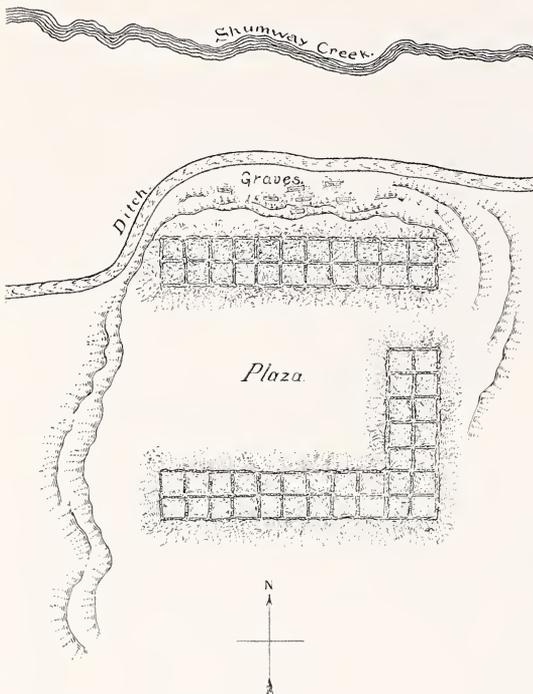


Figure 3 Hough's 1901 sketch of Shumway Ruin (from Hough, 1903:pl. 22; no scale in original)

Figure 2 shows that the village is composed of room blocks that delineate a small rectangular plaza (Plaza 1), a large irregular shaped plaza (Plaza 2), and a possible great kiva (or small plaza). The latter ceremonial structure is evidenced by a large rectangular depression, the size of which is consistent with great kivas in the region (Riggs, 2002:107). The sequence of overall village construction is similar to that of Fourmile Ruin. The original, or core, room blocks at Shumway Ruin appear to lie at the northern edge of the site, adjacent to the cliff edge that drops some 10 m to the valley floor. These early rooms delineated the possible great kiva and Plaza 1. A room excavated in this area of the pueblo by the current landowners contained one Pinedale Black-on-white olla and three Pinedale Polychrome bowls, all possibly sitting on the lower floor of a two-story room. These vessel types date between 1275 and 1325 (Mills, 1999) and indicate that the northern room block was perhaps occupied as early as the end of the thirteenth century. The room also confirms that the village was multitiered with at least two-story rooms in this portion of the village.

Sometime later in the history of the village, a larger plaza (Plaza 2) was defined with the addition of one or more contiguous room blocks at the southwestern and southeastern edges of the village. This plaza was originally defined by a core room block (with two to three rows of rooms) and

later expanded with additional rows of rooms. The original plaza surface was likely the sandstone bedrock that is partially exposed today. Plaza 2 was originally constructed around a natural spring from which water flowed northwesterly from the center of the plaza to the edge of the sandstone outcropping on which the village sits. Sometime in the past century, the channel was deepened and extended for use as an agricultural canal.

In contrast to the slow accretion of rooms indicated in other parts of the pueblo, the presence of long contiguous room blocks here suggests that groups of individuals and households from other parts of the Silver Creek area or adjacent regions arrived and joined an already established village. Although the temporal sequence of room block expansion remains unresolved, I presume that Plaza 2 was a late addition to the site. Future work is needed to clarify how many episodes of construction are reflected here and if the room block represents a late-constructed addition to the village.

TEST EXCAVATIONS

Room 1

Room 1 is located on the eastern edge of the village along the edge of Plaza 2, near the eastern opening (or gap) into the plaza (Figure 4). The room was selected for testing based on its location in what is presumed to be a late-constructed suite of rooms that define Plaza 2. The modern ground surface in this area of the village is largely devoid of vegetation because of grazing (Figure 5). With the exception of the buried or collapsed northern and eastern walls, all other walls of this room were easy to discern from the modern ground surface. The room is approximately 3.4 m long and 2.7 m wide. The room was divided into roughly equal quadrants. The southwestern quadrant was excavated down to the original floor of the room; the three remaining quadrants were not excavated. Strata 1 and 2 were wholly excavated as discrete, separate vertical units; Stratum 3 was excavated in 10-cm arbitrary units (conforming to the upper and lower boundaries of the stratum). Excavations were referenced horizontally to three mapping points and vertically to a single elevation datum (vertical datum 2002A, 96.87 m). Although surrounding areas of the village show evidence of recent pot-hunting activities, there is little or no disturbance within Room 1.

ROOM FILL. Three postoccupational strata were defined in the fill of Room 1 (Figure 6). Here, I use "postoccupational" to denote deposits formed after the structure fell into disuse but before the abandonment of the entire settlement; "postabandonment" refers to deposits formed after the entire site was abandoned. Stratum 1, the uppermost stratum, was a thin (7 to 15 cm)

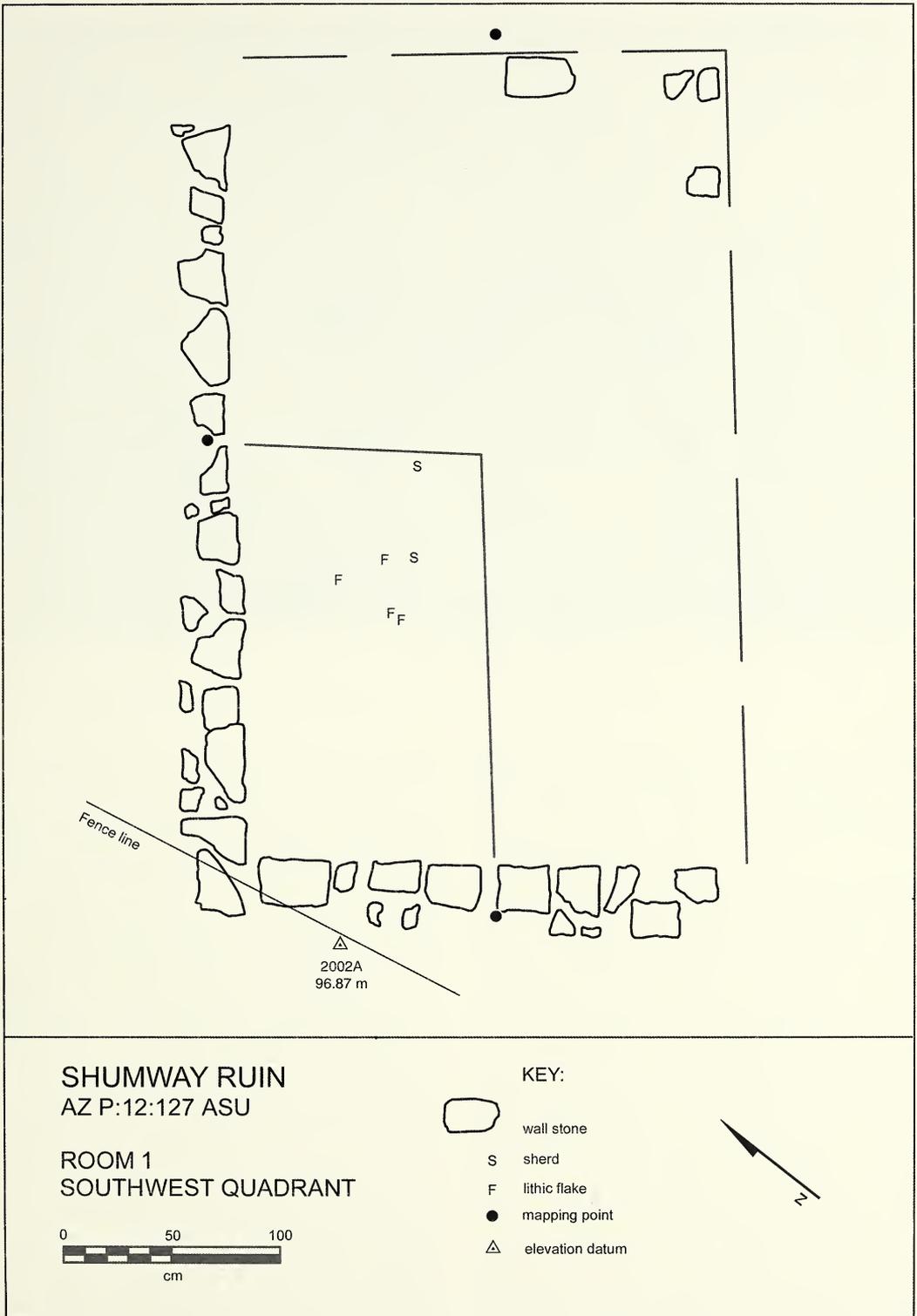


Figure 4 Plan view of Room 1



Figure 5 Photograph of Room 1 following excavation

deposit of wind- or water-deposited alluvium mixed with minor amounts of organic material (roots). The layer was largely devoid of cultural material. Stratum 2 was a thicker layer (28 to 46 cm) of collapsed masonry wall fall, which included large shaped sandstone blocks, smaller chinking material, and red-brown clayish mortar. The top of this layer sloped downward from the southwestern to northeastern corners of the quadrant and was thickest adjacent to the exposed southern and western walls. The layer contained very little cultural material. Stratum 3 was a thinner layer (10 to 15 cm) of structural collapse and contained fewer wall stones and chinking material deposited above and directly on the cultural surface. The clay content and matrix of this layer suggest that it was deposited with the erosion of wall plaster and other construction materials of the surrounding walls. There was no clear evidence of roofing material in this stratum, nor was there evidence that the room was burned. The boundary between Stratum 3 and the cultural surface was clearly delineated in most of the quadrant, suggesting that sediment was deposited fairly quickly, preserving the original cultural surface. Like the stratum above it, Stratum 3 contained little cultural material.

CULTURAL SURFACES AND ARCHITECTURE. Surface 1 was a leveled floor capped with

a thin (1 to 2 mm) layer of gray clay. The layer is best preserved along the southern and eastern walls and poorly preserved near the center of the room. A Fourmile Polychrome bowl rim sherd was recovered on the floor along the northern edge of the unit. Aside from one additional sherd and four lithic flakes, no other artifacts were present at floor contact. No floor features were uncovered in the southwestern quadrant.

The excavation of the southwestern quadrant confirmed what was evident on the surface; that is, both the southern and the western walls faced a courtyard area prior to the construction of this room. Both are fully coursed, well-prepared exterior facing masonry walls; the southern wall abuts the western wall. The existing height of these walls ranges between .35 and .40 m, and the shallowness of room fill and structural collapse suggest that the walls of Room 1 and surrounding rooms were not full height at abandonment. Alternatively, wall stones may have been removed from the wall for construction in other portions of the pueblo. The western and southern walls include three to four intact courses of masonry, with perhaps two to three collapsed into the room. The wall height prior to collapse was less than 1 m. The northern and eastern walls of the room are difficult to discern from the modern ground surface. Based on architectural evidence in Room 1, coupled with the bond and abutment of the walls of surrounding

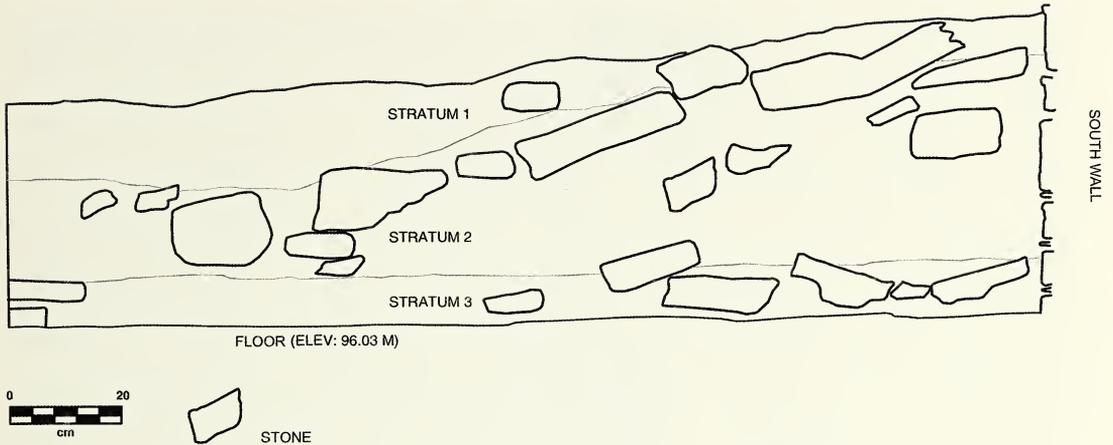


Figure 6 East excavation profile, southwestern quadrant, Room 1

rooms, it is clear that a single row of rooms originally defined this edge of Plaza 2. One or more rooms were then added in another row as the room block expanded (to the southeast). At some later time, Room 1 and perhaps one or two more rooms were added to this outer row.

SUMMARY. Room 1 was built within a row of rooms that define the southeastern edge of Plaza 2, near the open corridor that leads from this plaza to the exterior of the village. There is no evidence that the room was ever finished or that the existing structural collapse was associated with a full-height masonry wall and intact roof. In fact, the only indication that Room 1 was ever completed and occupied is a well-prepared and thinly plastered floor. It is also possible, however, that the roofs and walls of Room 1 and surrounding rooms were partially disassembled at abandonment. The paucity of cultural material in all fill was remarkable and suggests that all room fill was postabandonment collapse or deposited after the village was abandoned. There is no indication that ongoing cultural activities at the site influenced any of the deposition of Room 1 fill. Further excavation is needed in the remainder of the room to locate floor features and establish room function.

Room 3

Room 3 is in the southeastern edge of the northern room block adjacent to Plaza 1. It is part of a suite of rooms built on the southern edge of the plaza, all with deposits that appear much more substantial and deeper than those in the vicinity of Room 1. The room was selected because of its location in the earlier-constructed or -occupied portion of the village.

The walls of Room 3 were easy to discern from the surface (Figure 7). The room is 2.7 m long

and 2.6 m wide. The room was divided into roughly equal quadrants, and the southeastern quadrant was excavated down to the cultural surface. Strata 1 to 2 were wholly excavated as discrete, separate vertical units; Strata 3 and 4 were excavated in arbitrary units conforming to strata boundaries, each level not exceeding 10 cm. Excavations were referenced horizontally to three mapping points and vertically to a single elevation datum (vertical datum 2002C, 97.20 m). Although Room 3 is not impacted by pot-hunting activities, several adjacent rooms are heavily disturbed. The modern ground surface in this area is largely devoid of vegetation because of recent grazing (Figure 8).

ROOM FILL. Three postoccupational strata and one mixed stratum were defined in the fill of Room 3 (Figure 9). Stratum 1, the uppermost stratum, was a thin (7 to 13 cm) deposit of wind- or water-deposited alluvium mixed with minor amounts of organic material (roots), cultural material, and a few large wall stones. Stratum 2 was a thicker layer (49 to 56 cm) of collapsed masonry wall fall, composed of large shaped sandstone blocks, smaller chinking material, and red-brown clayish mortar. The top of this layer sloped downward from the southwestern to the northeastern corners of the quadrant and was thickest adjacent to the exposed southern and eastern walls. Two segments of intact wall collapse were noted during the excavation of this unit (see Figure 9). The upper layer included a segment of the eastern wall with four to five courses; below this, two to four courses of fallen stones from the southern wall were encountered. These layers within Stratum 2 presumably represent two separate episodes of wall collapse. The stratum was largely devoid of cultural material. Stratum 3 was a thinner layer (16 to 22 cm) of mixed structural collapse. The layer included fewer

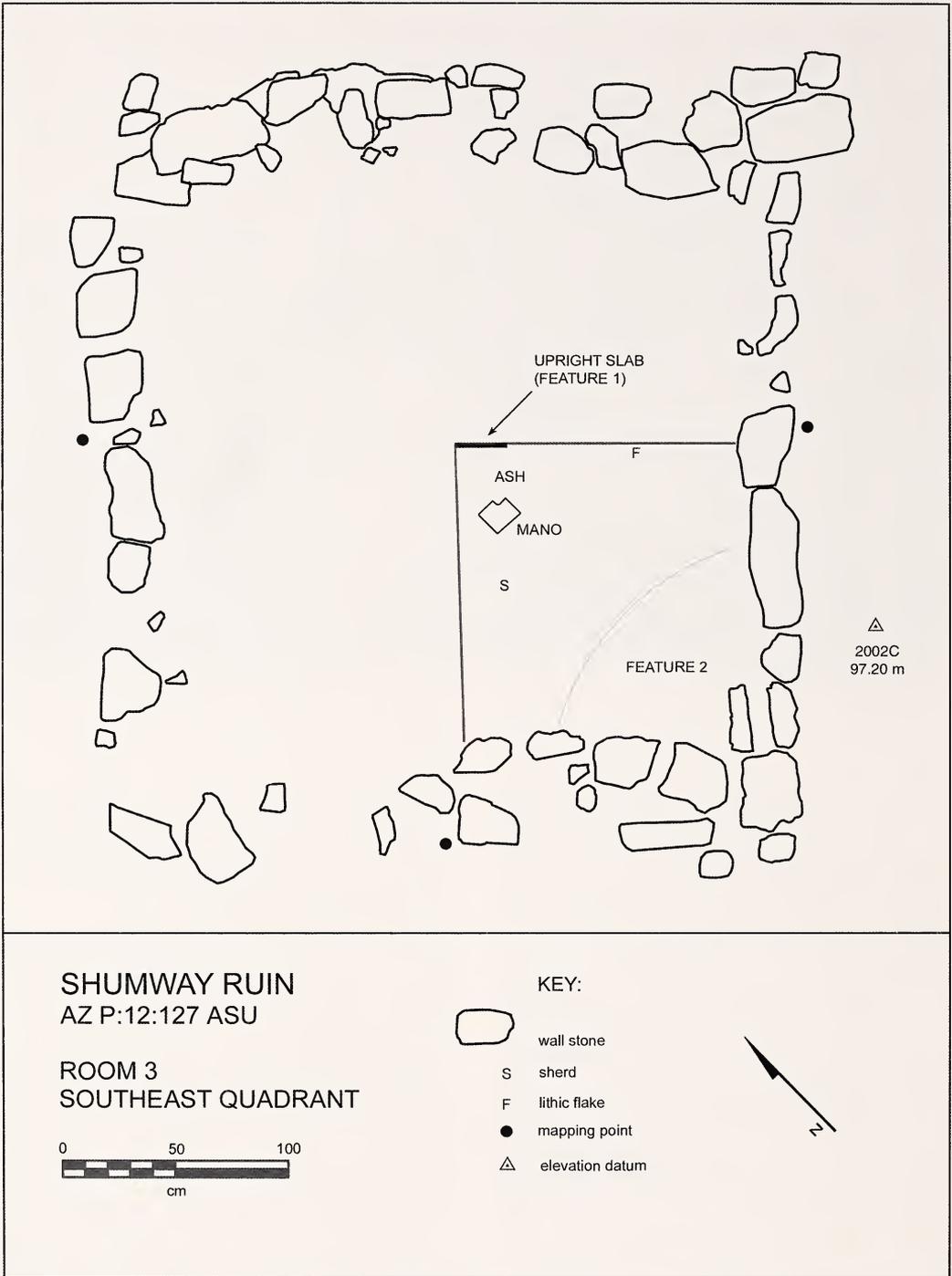


Figure 7 Plan view of Room 3

wall stones and chinking material, mixed with a loosely consolidated clayish matrix. Unlike Stratum 2, this layer included pockets of clay, charcoal flecks, and a loosely consolidated, decayed organic matrix. Although we did not encounter direct evidence of wooden beams or slats, the overall fill is consistent with collapsed and decayed

roofing material. There was a higher density of cultural fill in this layer with a distinct increase in trash at the transition to the next stratum. Stratum 4 was a thin (6 to 10 cm) deposit composed of artifacts mixed with collapsed structural fill, all deposited directly on the prepared and level room floor. The layer contained a moderate density of



Figure 8 Photograph of Room 3 following excavation

refuse, including small animal bone, sherds, lithic debitage, and spent ground stone, interspersed with wall stones, eroded wall mortar, and possible roofing material.

CULTURAL SURFACE, FEATURES, AND ARCHITECTURE. Surface 1 was a level floor capped with a thin (1 to 3 mm) layer of gray plaster. The surface was well preserved and easily delineated from the fill above. There is no evidence of in situ burning at floor contact despite the presence of charcoal flecks in the lower room fill. Several artifacts were found on the floor. None were apparently part of a larger floor assemblage but were associated instead with the overlying cultural refuse thrown into the room after it was abandoned. We did not conduct subfloor excavations because of time limitations, but the elevation of exposed bedrock in an adjacent pot-hunted room indicates that this floor was less than 30 to 40 cm above bedrock. Two floor features were encountered at floor contact: the remains of a storage bin in the southeastern corner of the room and a slab-lined fire pit near the center of the room.

Feature 1 is a possible slab-lined fire pit in the center of the room. Only a portion of the feature was uncovered in the northwestern corner of the quadrant (with the rest remaining in unexcavated

quadrants); because the feature was not excavated, it was impossible to estimate its precise dimensions. A pocket of grayish-white ash was present on the room floor adjacent to this feature. Feature 2 is a small storage bin constructed in the southeastern corner of the room. A circular clay lip extending 3 to 5 cm above the floor was noted during the excavation of Stratum 4. The clay lip or edge formed a semicircle in the room corner, joining the eastern wall at 81 cm from the corner and the southern wall at 57 cm from the corner. This clay edge of the feature is undoubtedly what remains of an original partitioning wall of unknown height in the room corner. Both the room wall edges, interior wall faces, and wall corner were all sealed with clay. It is impossible to know whether this storage bin was intact and in use at the time of room abandonment, but we recovered no evidence of macrobotanical remains or associated materials.

Both the southern and the eastern walls are semi- to uncoursed, interior-facing masonry walls. The southeastern and northeastern corners are bonded and the western corners appear to be bonded from surface evidence, suggesting that Room 3 was constructed at the same time as one or more other rooms. The existing wall height ranges from .80 to .90 m with approximately .40

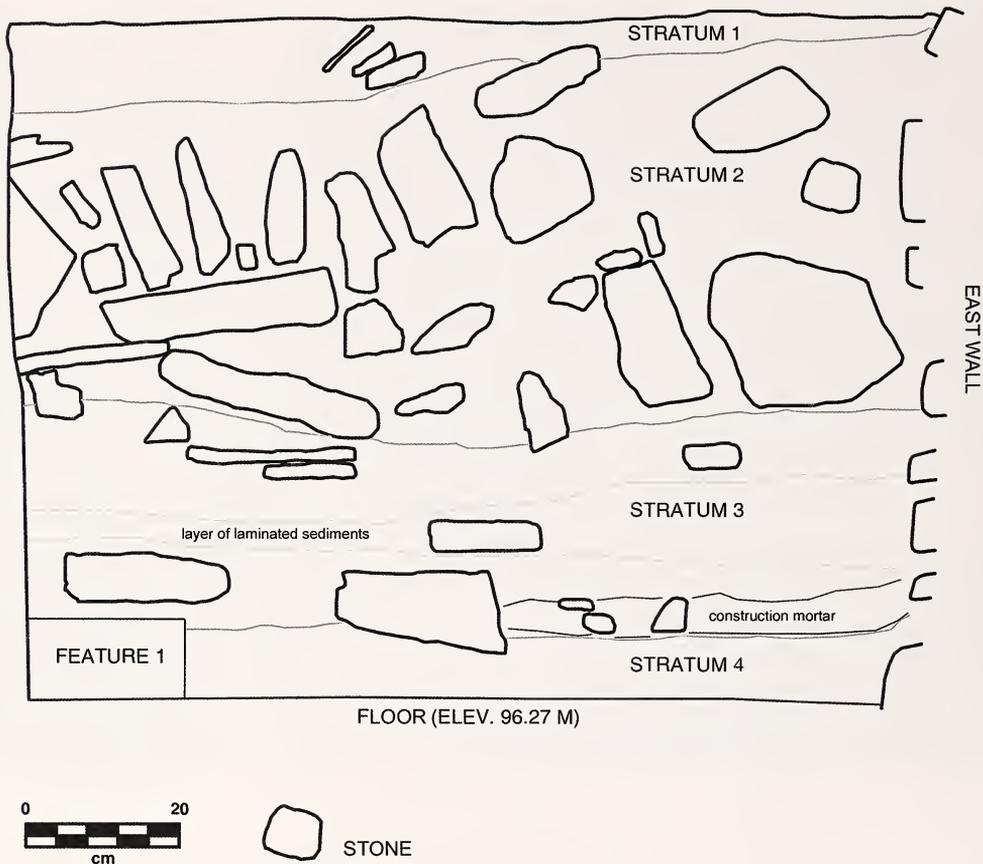


Figure 9 North excavation profile, southeastern quadrant, Room 3

to .60 m of clearly delineated wall segments collapsed into the room (in Stratum 2). This combined evidence suggests that the walls of this one-story room were originally full standing at 1.2 to 1.5 m (or higher).

SUMMARY. Room 3 was probably constructed with one or more other rooms in the earliest room block of the village. It was one of several rooms that shared contiguous walls along the eastern edge of Plaza 1. Additional rooms were perhaps added to the west, east, and south as the village expanded. A Kechipawan Polychrome rim sherd was recovered from this fill; this non-locally produced Zuni Glaze Ware dates after 1350 (Duff, 2002; Kintigh, 1985). Based on the presence of this late ceramic type and the low density of refuse overall, Room 3 may have been a late-abandoned room possibly used sometime near the end of the overall village occupation. Alternatively, the room may have been used to dispose of refuse by the occupants of later, nearby rooms.

Although the deep upper fill of Room 3 did not contain an abundance of cultural material, the lower deposits on the floor included some cultural

refuse. The features suggest that the room was originally a general habitation structure that was used for food preparation and storage activities (among others). At the end of its use as a habitation space, it was filled with a minor amount of refuse. There is no direct evidence of roof timbers in the room, intimating that the roof was partially or completely dismantled. Although a few shaped wall stones were encountered in the lower fill, it appears that the room walls did not begin to collapse until after the village was abandoned (or at a time when refuse was no longer deposited in the room).

Plaza Test Unit

The size and configuration of Plaza 1 is analogous to Pinedale Phase public architecture elsewhere in the region, including the plaza at Bailey Ruin (Mills et al., 1999c:151, fig. 6.1) and the smaller of two plazas at Pinedale Ruin (Haury and Hargrave, 1931:45, fig. 11). As noted earlier, Plaza 1 may thus pre-date both Plaza 2 and the southern room block. Based on the presence of cultural refuse and dark grayish matrix, it appears



Figure 10 Photograph of plaza test unit, Plaza 1 (following excavation)

amounts of organic material (roots) along with small artifacts. This dark gray layer of loosely consolidated silty loam was analogous to upper strata excavated in Rooms 1 and 3. The transition from Stratum 1 to 2 was defined both by an increase in trash and by increasingly compacted soil. Stratum 2 was a slightly thicker layer (7 to 19 cm) of cultural refuse. This layer overlaid a compacted red clay and bedrock surface that crops out throughout the site. Both strata sloped downward from the south to north and are clearly formed by ongoing sheet wash from the southern edge of the plaza toward the northern edge of the site. Stratum 2 contained abundant refuse that included broken ceramics, lithic debitage, small animal bone, charred macrobotanical remains (e.g., corn cob fragments), and pockets of ash and charcoal. Despite the presence of the latter, there was no substantial evidence for in situ burning or cultural features (e.g., hearths). Some or all of this trash has been gradually eroding downslope from the southern edge of the plaza, the location at which trash was originally deposited into this space. The size of sherds and other materials generally increased with depth, and both Stratum 1 and the upper level of Stratum 2 have been impacted by livestock traffic. The test unit shows that the plaza did not originally have a prepared floor and was constructed on the irregular and unaltered bedrock surface comparable to the central plaza at Bailey Ruin (Mills et al., 1999c). No features were noted during excavation.

that the plaza was used as a location for refuse associated with activities in other areas of the village, indicating that this extramural space fell into disuse before the abandonment of the entire village. A 1- by 2-m unit was excavated at the southern edge of the plaza to test this presumption and to explore the nature and depth of deposits here (Figure 10). The unit was horizontally referenced by four mapping points (the corner nails of the unit) and vertically by a single elevation datum (vertical datum 2002D, 96.19 m).

FILL. One postoccupational stratum and one cultural stratum were defined in the fill of this test unit (Figure 11). Stratum 1, the uppermost stratum, was a thin (5 to 9 cm) band of wind- or water-deposited alluvium mixed with a minor

SUMMARY. The excavation of this test unit confirms that Plaza 1 fell into disuse sometime prior to the abandonment of the entire village. The refuse dumped into the southern end of the plaza perhaps was associated with activities within rooms to the south and southeast. This trash contained abundant pottery sherds dominated by late Roosevelt Red Ware and White Mountain Red Ware types. The ceramic types encountered in the deposit generally date from the early to late fourteenth century and include Fourmile Polychrome, Tonto Polychrome, Jeddito Black-on-yellow, and Jeddito Black-on-orange. The end dates for these types generally range from 1375 to 1400. A single Pinnawa Red-on-white (1350 to 1450; see Duff, 2002; Kintigh, 1985) sherd was also recovered, suggesting that

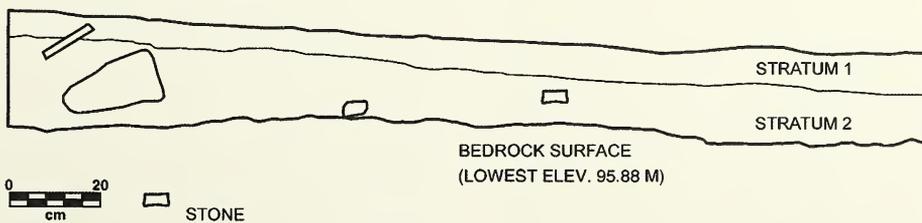


Figure 11 West excavation profile, plaza test unit, Plaza 1

Table 2 Count of ceramic wares for excavated units

Excavation unit and context		Ware						Total	
		WMRW	CWW	RRW	JYW	ZGW	Undec.		Other dec.
Room 1, SW quadrant	Ground surface	—	—	—	—	—	—	—	—
	Stratum 1	—	—	—	—	—	1	—	1
	Stratum 2	3	1	—	—	—	4	—	8
	Stratum 3, Level 1	—	—	—	—	—	3	—	3
	Stratum 3, Level 2	—	1	—	—	—	5	—	6
	Floor contact	1	1	—	—	—	—	—	2
Room 3, SE quadrant	Ground surface	—	—	—	—	—	—	—	—
	Stratum 1	—	—	—	—	—	3	—	3
	Stratum 2	—	2	1	—	—	12	—	15
	Stratum 3, Level 1	1	1	4	3	—	6	—	15
	Stratum 3, Level 2	1	7	7	—	—	6	—	21
	Stratum 4, Level 1	1	—	—	—	1	8	—	10
	Floor contact	—	—	—	—	—	1	—	1
Plaza test unit	Ground surface	12	13	25	9	—	166	—	225
	Stratum 1, Level 1	75	17	49	12	2	460	1	616
	Stratum 2, Level 1	112	34	40	8	—	421	—	615
	Stratum 2, Level 2	166	45	15	6	17	442	2	693
Total	372	122	141	38	20	1538	3	2234	
Percent	16.7	5.5	6.3	1.7	0.9	68.8	0.1		

Abbreviations: WMRW = White Mountain Red Ware; CWW = Cibola White Ware; RRW = Roosevelt Red Ware; JYW = Jeddito Yellow Ware; ZGW = Zuni glaze-painted types; Undec. = Undecorated; Other dec. = Other decorated

the deposition of trash in this location dates to the latter part of the fourteenth century with the possibility of occupation into the fifteenth century. The paucity of Pinedale-style ceramics also suggests that this fill was deposited during the latter period of occupation at the site, or sometime after circa 1330. Although the deposit also contained ash and charcoal, small animal bone, and lithic debitage, the unit lacked the overall diversity of formal middens (either within abandoned rooms or at the perimeter of villages).

SUMMARY OF 2002 EXCAVATIONS

Excavations during the 2002 field season were designed to investigate both intramural and extramural spaces within the village and to recover a baseline assemblage of artifacts. This work is the first systematic archaeological investigation of Shumway Ruin. Two rooms at the eastern edge of the village were tested along with a 1- by 2-m unit in the smaller of two plazas. Room 1 was largely devoid of cultural material, and the absence of features in the excavated quadrant precludes any interpretation of room function. Both the absence of roofing material and the paucity of wall fall imply that the room either was never fully completed or was partially deconstructed at abandonment. Room 3 exhibited very different depositional fill. Based on the possible presence of a central slab-lined fire pit and a partitioned storage bin feature, the room

was a general habitation space. At some point during its occupational history, the room was abandoned and began to fill with wall or roof fall mixed with cultural refuse. The refuse was presumably deposited from surrounding households. The majority of artifacts recovered during this field season came from the shallow excavation unit in Plaza 1. The trash layer contained a dense array of cultural trash, presumably deposited from nearby rooms as the plaza fell into disuse, perhaps sometime near the end of the occupation of the village.

The excavations recovered a diverse range of artifacts, and flotation samples and pollen samples were taken from room fill and floors. A preliminary analysis of ceramics from excavated contexts confirms that an occupation began perhaps as early as the late 1200s and extended to the mid- to late 1300s. Not surprisingly, White Mountain Red Ware dominates the painted ceramic assemblage, with lesser amounts of Roosevelt Red Ware, Cibola White Ware, and a handful of non-locally produced pottery (Tables 2 and 3). With the exception of Pinedale-style Cibola White Ware, many of the ceramics recovered from rooms and the test unit—all at the northern edge of the pueblo—fit with a post-1330 occupation. This is not surprising since we surmised that late-deposited trash was deposited in both Room 3 and Plaza 1. No wood samples suitable for dendrochronological analysis were recovered during the 2002 excavations.

Table 3 Weight (g) of ceramic wares for excavated units

Excavation unit and context		Ware						Other dec.	Total
		WMRW	CWW	RRW	JYW	ZGW	Undec.		
Room 1, SW quadrant	Ground surface	—	—	—	—	—	—	—	0
	Stratum 1	—	—	—	—	—	3.0	—	3.0
	Stratum 2	7.2	1.3	—	—	—	39.4	—	47.9
	Stratum 3, Level 1	—	—	—	—	—	19.8	—	19.8
	Stratum 3, Level 2	—	5.5	—	—	—	16.4	—	21.9
	Floor contact	6.9	1.6	—	—	—	—	—	8.5
Room 3, SE quadrant	Ground surface	—	—	—	—	—	—	—	0
	Stratum 1	—	—	—	—	—	7.4	—	7.4
	Stratum 2	—	5.3	4.8	—	—	37.4	—	47.5
	Stratum 3, Level 1	4.1	1.2	14.6	7.3	—	24.3	—	51.5
	Stratum 3, Level 2	2.5	36.3	59.1	—	—	14.2	—	112.1
	Stratum 4, Level 1	17.1	—	—	—	7.0	36.2	—	60.3
	Floor contact	—	—	—	—	—	5.2	—	5.2
Plaza test unit	Ground surface	19.4	22.2	29.5	7.5	—	161.0	—	239.6
	Stratum 1, Level 1	185.5	38.3	173.3	41.4	2.6	879.2	3.8	1324.1
	Stratum 2, Level 1	391.8	97.1	134.1	21.9	—	1458.8	—	2103.7
	Stratum 2, Level 2	584.6	182.6	129.9	3.6	88.5	1786.7	4.4	2780.3
Total		1219.1	391.4	545.3	81.7	98.1	4489.0	8.2	6832.8

Abbreviations: WMRW = White Mountain Red Ware; CWW = Cibola White Ware; RRW = Roosevelt Red Ware; JYW = Jeddito Yellow Ware; ZGW = Zuni glaze-painted types; Undec. = Undecorated; Other dec. = Other decorated

SHUMWAY RUIN AND THE LATE PRE-HISPANIC PERIOD IN EAST-CENTRAL ARIZONA

Based on the ceramic data reported here, Shumway Ruin was established by the close of the Pueblo III period and expanded during the early Pueblo IV period. Excavated ceramic types include classic Pinedale-style pottery dating between the end of the thirteenth century to the first few decades of the fourteenth century (Carlson, 1970). The bulk of decorated ceramics date slightly later and include Fourmile Polychrome and Tonto Polychrome (Table 2). Also present are Early Zuni Glaze Ware and Jeddito Yellow Ware, including types such as Kechipawan Polychrome, Pinawwa Red-on-white, and Sikyatki Polychrome that date to the late fourteenth through early fifteenth centuries. The ceramic assemblage parallels the unpublished materials at Fourmile Ruin collected by Woodman (1991) during an episode of systematic looting at that site in 1986. Both the Fourmile Ruin ceramics and those reported here from Shumway Ruin indicate that these villages were among the last-abandoned Pueblo settlements in the Silver Creek drainage.

This report provides a much-needed revision to Hough's (1903) inaccurate site plan of Shumway Ruin (Figure 3). Although Hough's map of the site estimates the number of rooms at fewer than 50, it is now apparent that the size of the village at abandonment included as many as 300 ground-

floor rooms, with perhaps as many as 30 to 50 additional second-story rooms. The size of these rooms is generally smaller than those at Bailey Ruin and Pinedale Ruin to the south, which can be explained in part by differences in the local availability of construction wood at northern versus southern zones of the Silver Creek drainage.

The village layout is remarkably similar to that of Fourmile Ruin and possibly to that of Showlow and Pinedale ruins to the south (based on Haury and Hargrave's [1931] maps of the latter two sites). Both the early occupants at Fourmile and Shumway Ruin constructed contiguous room blocks surrounding central plazas. These early occupations represent, in essence, an extension of the earlier settlement pattern of mid- to late-thirteenth-century sites in the region. As I noted earlier, the initial phases of construction at Shumway Ruin may have resembled (in size and layout) Broken K Pueblo, Flake Ruin, and other partially-enclosed-plaza villages in the upper Little Colorado River valley occupied during the mid- to late 1200s (Longacre, 1966). Based on Lightfoot's (1984) earlier survey in the Silver Creek area and my recent analyses of these surface-collected ceramics (now curated at Arizona State University), it appears that these small Pueblo III period villages were clustered along portions of the Cottonwood Wash, Silver Creek, and Show Low Creek during the thirteenth century. Curiously, few of these small, plaza-oriented villages include Pinedale-style ceramics

(based on surface collections), and thus their occupations ended prior to the last quarter of the thirteenth century. Therefore, it is *possible* that this portion of the Silver Creek region was unoccupied for some period between the abandonment of these earlier Pueblo III period villages and the aggregation of later villages (with Pinedale-style ceramics). If this is the case, it is conceivable that increased moisture beginning in the first decade of the 1300s attracted groups back to the northern Silver Creek drainage as agricultural potential improved (see Kaldahl and Dean, 1999).

I argue for two periods of aggregation at the beginning of the Pueblo IV period. The first begins with the establishment (or expansion) of the six major Pueblo towns by the end of the 1200s (Figure 1). The second is marked by a further phase of expansion that coincides with the construction of large plazas and the abandonment of one town (Bailey Ruin), perhaps during the 1320s. At Shumway Ruin, the latest plaza was formally defined by the addition or expansion of the southern room block. Based on preliminary bond and abutment data, long rows of contiguous rooms were constructed at the same time, suggesting the collective efforts of large corporate groups during this expansion phase. It is possible that the use of this large plaza coincided with the disuse of the earlier Plaza 1 in the northern room block. The large plaza was never fully enclosed: the eastern edge of the plaza was defined by a cliff edge and a sharp drop-off to the valley floor below, and a narrow gap or corridor leads from the plaza to the exterior of the village at its eastern edge.

The architectural sequence of Fourmile Ruin, located some 10 km to the northwest, is remarkably similar (Mills, 1998; Woodman, 1991). There, a large and late-constructed southern plaza was established with the addition of several contiguous room blocks. Based on the ubiquity of adobe brick construction in rooms surrounding this space, the large plaza at Fourmile Ruin seems to be associated with the arrival of migrants from the middle Little Colorado River valley or other areas to the north (see Gann, 1996; Johnson, 1992). Based on Haury and Hargrave's (1931) report, a large plaza also defines the southern half of Pinedale Ruin, along with a smaller plaza in the northern room block of the site. The timing of the expansion of extramural spaces is difficult to estimate at these sites given the paucity of excavations and architectural data. It is tempting, however, to associate these changes with the appearance of new ritual activities and to suggest that they occurred at or about the same time that iconographic-style pottery appears in the 1320s. In general, these artifact and architectural changes are viewed by many to signal a new ceremonial complex in the Pueblo IV period Southwest (Adams, 1989, 1991; Crown, 1996, 1998; Spiel-

mann, 1998). This association between architectural changes and the appearance of Fourmile-style ceramics in the Silver Creek region implies changes in the broader organization of Pueblo communities in the early Pueblo IV period and remains a question for future research.

Understanding the social and economic organization of polychrome pottery production in the fourteenth century is another critical goal of this work in the northern Silver Creek area. Based on technological analyses in surrounding areas (Triadan, 1997) and of sites that pre-date the main occupation of Fourmile and Shumway ruins (Mills et al., 1999a), most archaeologists assume that a handful of sites in the Silver Creek drainage produced iconographic-style, high-fired White Mountain Red Ware that was circulated throughout east-central Arizona by 1330. These pots signal a shift in the decorative subject matter painted on bowls and perhaps the use of these containers in ritual activities, and they may have been produced by craft specialists (Van Keuren, 2000, 2001). Unfortunately, there is little systematic data from the presumed source villages of late White Mountain Red Ware to support these interpretations. In fact, until now, it has been impossible to establish that White Mountain Red Ware was even the predominant decorated pottery in the northern Silver Creek drainage, where it is presumed to have been manufactured. According to Johnson (1992), Roosevelt Red Ware and not White Mountain Red Ware was abundant in the late room blocks at Fourmile Ruin that were systematically looted two decades ago. In contrast, Fourmile-style White Mountain Red Ware bowls are the predominant type in Fewkes's (1904) extensive whole-vessel collections from Fourmile Ruin. We are left then with the important question of whether the type site (Fourmile Ruin) for the last White Mountain Red Ware type produced in the Silver Creek drainage (Fourmile Polychrome) was a production center for this type at all. Given the current state of the heavily looted Fourmile Ruin, Shumway Ruin is key to clarifying patterns of fourteenth-century ceramic production and exchange in the Silver Creek drainage.

Based on the 2002 excavations White Mountain Red Ware is the dominant decorated ware at Shumway Ruin (Tables 2 and 3). No tools or resources associated with pottery production were recovered. However, the excavated collections from Shumway Ruin include examples of Fourmile-style copies that are similar to the White Mountain Red Ware imitations that appear in Fewkes's Fourmile Ruin collection and analogous to the copies produced at Grasshopper Pueblo and other sites south of the Mogollon Rim (Van Keuren, 2001). Based on earlier studies of this early collection from Fourmile Ruin, White Mountain Red Ware from Grasshopper Pueblo south of the Silver Creek area, and other regional

whole-vessel collections, I have argued that sometime after 1330 White Mountain Red Ware was widely copied throughout the Mogollon Rim area (Van Keuren, 2001). These new excavations confirm the presence of the “hybrid” types at Shumway Ruin, and it is possible that potters at this village produced both classic and copied White Mountain Red Ware as seems to be the case at Fourmile Ruin. As I argue elsewhere (Van Keuren, 2001), this pattern implies a new social environment of pottery production in which not all craftspeople had access to the increasingly limited material and nonmaterial resources utilized in the production of White Mountain Red Ware. This conclusion is tentative and must be tested with additional excavations at Shumway and Fourmile ruins, followed by further provenance work of painted ceramics and archaeological clays.

Finally, based on this new work at Shumway Ruin, it is useful to address the cultural identity of this village relative to other sites in the Silver Creek drainage. In terms of overall village layout, building methods and materials, the scale and configuration of architectural space, and ceramic assemblages, the village is quite similar to its contemporaries in the area. As noted earlier, the composition of extramural spaces at Shumway Ruin is similar to those at Fourmile Ruin to the northwest, the nearest contemporaneous village. However, two features distinguish Shumway Ruin from Fourmile Ruin. First, two rectangular kivas were constructed within Fourmile Ruin’s two large plazas, a pattern found at villages in the middle Little Colorado River valley to the north (e.g., Adams, 2002). The absence of this architectural element at Shumway Ruin—kivas *within* plazas—may have more to do with the location of the village. The site was built directly on a sandstone surface, precluding the construction of subterranean rooms. Second, Shumway Ruin lacks evidence of adobe bricks, a construction material that is ubiquitous throughout the rooms that surround the two latest plazas at Fourmile Ruin (Johnson, 1992). This difference in construction types at the two sites is intriguing. At Fourmile Ruin, it not only is undoubtedly related to the local scarcity of construction materials but also hints at the presence of late-arriving migrant groups from villages along the middle Little Colorado River to the north (see Adams, 1996). Additional work at both sites should clarify these questions of cultural affiliation and diversity within these villages.

SUMMARY

In this report, I detail new work at sizable fourteenth-century Ancestral Pueblo village in east-central Arizona and address settlement patterns in the northern Silver Creek drainage during the 1300s. Shumway Ruin was one of the largest

and latest Ancestral Pueblo villages in the Silver Creek drainage, occupied at a time when groups in this portion of the northern Southwest were experiencing important changes in community structure and economic organization following the abandonment of the Four Corners region. One of these key changes involved the appearance of iconographic-style red ware pottery (Fourmile Polychrome). The origins and implications of this shift in craft production are poorly known in part because the Silver Creek sites where the type is found have been heavily impacted by looting. Although it has been previously disturbed, Shumway Ruin is one of the least researched fourteenth-century sites in the greater Silver Creek area. Both the excavations and the architectural data collected during the 2002 field season demonstrate that the size, layout, and occupation span of Shumway Ruin parallel that of Fourmile, Showlow, and Pinedale ruins. Future work at the site will examine the occupational history of the settlement, the ritual and economic organization in the area, and the possible reasons why the village was abandoned by Pueblo peoples by the end of the fourteenth century.

ACKNOWLEDGMENTS

Fieldwork was made possible with the help of David Bild and Amy Rush-Conroy, both of whom helped make the 2002 field season a success. This phase of the project was supported by funds provided by the Natural History Museum of Los Angeles County Foundation. Jerry Lyon provided help recording architectural data for the plan view of Shumway Ruin during a previous field season; the latter was supported by a 2001 grant from the Arizona Archaeological and Historical Society. Crew housing at the Pinedale Work Center was provided by the U.S.F.S. Sitgreaves National Forest; I thank Linda Martin and Paul Garcia for these arrangements. As always, Mary Cothrun and her family made Pinedale feel like home for six weeks. I am also grateful to all the families in east-central Arizona who granted permission to work on their properties. This work would not have been possible without the ongoing support of these local landowners. S. Matt Reed kindly volunteered to inventory the Shumway Ruin ceramic assemblage. Finally, I thank Barbara J. Mills, Sarah A. Herr, Stephen E. Nash, William M. Graves, and Lucas Premo for their useful comments on an earlier draft of this paper.

LITERATURE CITED

- Adams, E.C. 1989. Western Anasazi and Western Pueblo ceremonial architecture: Contrasting patterns in form and function A.D. 1000 to A.D. 1500. In *Seasons of the Kachina*, ed. S.B. Vane, 41–50. Hayward, California: Ballena Press.
- . 1991. *The origin and development of the Pueblo Katsina cult*. Tucson: University of Arizona Press.
- . 1996. *River of change: Prehistory of the middle Little Colorado River valley, Arizona*. Arizona State Museum Archaeological Series 185. Tucson: Arizona State Museum.

- . 2002. *Homol'ovi: An ancient Hopi settlement cluster*. Tucson: University of Arizona Press.
- Adams, E.C., and A.I. Duff. 2004. Settlement clusters and the Pueblo IV period. In *The protohistoric Pueblo world, A.D. 1275–1600*, ed. E.C. Adams and A.I. Duff, 3–16. Tucson: University of Arizona Press.
- Bandelier, A.F. 1892. *Final report of investigations among the Indians of the southwestern United States, carried on mainly in the years from 1880 to 1885*. Cambridge: John Wilson and Son.
- Bernardini, W. 1998. Conflict, migration, and the social environment: Interpreting architectural change in early and late Pueblo IV period aggregations. In *Migration and reorganization: The Pueblo IV period in the American Southwest*, ed. K.A. Spielmann, 91–114. Tempe: Arizona State University.
- Carlson, R.L. 1970. *White Mountain Redware: A pottery tradition of east-central Arizona and western New Mexico*. University of Arizona Anthropological Papers 19. Tucson: University of Arizona Press.
- Cordell, L.S., D.E. Doyel, and K.W. Kintigh. 1994. Processes of aggregation in the prehistoric Southwest. In *Themes in Southwest prehistory*, ed. G.J. Gumerman, 109–133. Santa Fe: School of American Research Press.
- Crown, P.L. 1996. Change in ceramic design style and technology in the 13th to 14th century Southwest. In *Interpreting southwestern diversity: Underlying principles and overarching patterns*, ed. P.R. Fish and J.J. Reid, 241–247. Anthropological Research Papers 48. Tempe: Arizona State University.
- . 1998. Changing perspectives on the Pueblo IV world. In *Migration and reorganization: The Pueblo IV period in the American Southwest*, ed. K.A. Spielmann, 293–299. Anthropological Research Papers 51. Tempe: Arizona State University.
- Dean, J.S. 1996. Kayenta Anasazi settlement transformations in northeastern Arizona, A.D. 1150 to 1350. In *The prehistoric Pueblo world, A.D. 1150–1350*, ed. M.A. Adler, Tucson: University of Arizona Press.
- Duff, A.I. 2002. *Western Pueblo identities: Regional interaction, migration, and transformation*. Tucson: University of Arizona Press.
- Fewkes, J.W. 1904. Two summers' work in Pueblo ruins. In *Twenty-second annual report of the Bureau of American Ethnology, part 1*, 1–196. Washington, D.C.: U.S. Government Printing Office.
- Gann, D.W. 1996. The use of adobe architecture in the Homol'ovi region. In *River of change: Prehistory of the middle Little Colorado River valley*, ed. E.C. Adams, 93–105. Arizona State Museum Archaeological Series 185. Tucson: Arizona State Museum.
- Haury, E.W., and L.L. Hargrave. 1931. *Recently dated Pueblo ruins in Arizona*. Smithsonian Miscellaneous Collections, vol. 82, no. 11, Publication 3069. Washington, D.C.: U.S. Government Printing Office.
- Hill, J.N. 1970. *Broken K Pueblo: Prehistoric social organization in the American Southwest*. Anthropological Papers of the University of Arizona 18. Tucson: University of Arizona Press.
- Hough, W. 1903. Archaeological fieldwork in northeastern Arizona: The Museum-Gates Expedition of 1901. In *Report of the U.S. National Museum*, 287–358. Washington, D.C.: U.S. Government Printing Office.
- Johnson, D.A. 1992. Adobe brick architecture and Salado ceramics at Fourmile Ruin. In *Proceedings of the Second Salado Conference, Globe, Arizona, 1992*, ed. R.C. Lange and S. Germick, 131–138. Phoenix: Arizona Archaeology Society.
- Kaldahl, E.J., and J.S. Dean. 1999. Climate, vegetation, and dendrochronology. In *Living on the edge of the rim: Excavations and analysis of the Silver Creek Archaeological Research Project, 1993–1998*, ed. B.J. Mills, S.A. Herr and S. Van Keuren, 11–29. Arizona State Museum Archaeological Series 192. Tucson: Arizona State Museum, University of Arizona.
- Kaldahl, E.J., S. Van Keuren, and B.J. Mills. 2004. Migration, factionalism, and the trajectories of Pueblo IV period clusters in the Mogollon Rim region. In *The protohistoric Pueblo world: A.D. 1275–1600*, ed. A. Duff and E.C. Adams, 85–94. Tucson: University of Arizona Press.
- Kintigh, K.W. 1985. *Settlement, subsistence, and society in late Zuni prehistory*. University of Arizona Anthropological Papers 44. Tucson: University of Arizona Press.
- Lightfoot, K.G. 1981. *Prehistoric political development in the Little Colorado region, east-central Arizona*. Unpublished Ph.D. dissertation. Tempe: Arizona State University.
- . 1984. *Prehistoric political dynamics: A case study from the American Southwest*. Dekalb: Northern Illinois University Press.
- Lightfoot, K.G., and R. Most. 1989. Interpreting settlement hierarchies: A reassessment of Pinedale and Snowflake settlement patterns. In *The socio-political structure of prehistoric southwestern societies*, ed. S. Upham, K.G. Lightfoot and R.A. Jewett, 389–418. Boulder, Colorado: Westview Press.
- Longacre, W.A. 1966. Changing patterns of social integration: A prehistoric example from the American Southwest. *American Anthropologist* 68: 94–101.
- Martin, P.S., J.B. Rinaldo, W.S. Longacre, L.G. Freeman, J.A. Brown, R.H. Hevly, and M.E. Cooley. 1964. *Chapters in the prehistory of eastern Arizona, II*. Fieldiana: Anthropology 55. Chicago: Field Museum.
- Martin, P.S., E.B.W. Zubrow, D.C. Bowman, D.A. Gregory, J.A. Hanson, M.B. Schiffer, and D.R. Wilcox. 1975. *Chapters in the prehistory of eastern Arizona, IV*. Fieldiana: Anthropology 65. Chicago: Field Museum.
- Mills, B.J. 1998. Migration and Pueblo IV community reorganization in the Silver Creek area, east-central Arizona. In *Migration and reorganization: The Pueblo IV period in the American Southwest*, ed. K.A. Spielmann, 65–80. Anthropological Research Papers 51. Tempe: Arizona State University.
- . 1999. Ceramic ware and type systematics. In *Living on the edge of the rim: Excavations and analysis of the Silver Creek Archaeological Research Project, 1993–1998*, ed. B.J. Mills, S.A. Herr and S. Van Keuren, 243–268. Arizona State Museum Archaeological Series 192. Tucson: Arizona State Museum, University of Arizona.
- Mills, B.J., and S.H. Herr. 1999. Chronology of the Mogollon Rim region. In *Living on the edge of the rim: Excavations and analysis of the Silver Creek*

- Archaeological Research Project, 1993–1998*, ed. B.J. Mills, S.A. Herr and S. Van Keuren, 269–293. Arizona State Museum Archaeological Series 192. Tucson: Arizona State Museum, University of Arizona.
- Mills, B.J., S.H. Herr, S.L. Stinson, and D. Triadan. 1999a. Ceramic production and distribution in the Silver Creek area. In *Living on the edge of the rim: Excavations and analysis of the Silver Creek Archaeological Research Project 1993–1998*, ed. B.J. Mills, S.H. Herr and S. Van Keuren, 295–324. Arizona State Museum Archaeological Series 192. Tucson: Arizona State Museum.
- Mills, B.J., S.A. Herr, and S. Van Keuren. eds. *Living on the edge of the rim: Excavations and analysis of the Silver Creek Archaeological Research Project 1993–1998*. Arizona State Museum Archaeological Series 192. Tucson: Arizona State Museum.
- Mills, B.J., S. Van Keuren, S.L. Stinson, W.M. Graves III, E.J. Kaldahl, and J.M. Newcomb. 1999c. Excavations at Bailey Ruin. In *Living on the edge of the rim: Excavations and analysis of the Silver Creek Archaeological Research Project, 1993–1998*, ed. B.J. Mills, S.A. Herr and S. Van Keuren, 149–242. Arizona State Museum Archaeological Series 192. Tucson: Arizona State Museum, University of Arizona.
- Montgomery, B.K., and J.J. Reid. 1990. An instance of rapid ceramic change in the American Southwest. *American Antiquity* 55:88–97.
- Neily, R.B. 1988. *Archaeological investigations in the Snowflake-Mesa Redonda area, east-central Arizona*. Arizona State Museum Archaeological Series 173. Tucson: Arizona State Museum.
- Newcomb, J.M. 1999. Silver Creek settlement patterns and paleodemography. In *Living on the edge of the rim: Excavations and analysis of the Silver Creek Archaeological Research Project, 1993–1998*, ed. B.J. Mills, S.A. Herr and S. Van Keuren, 31–52. Arizona State Museum Archaeological Series 192. Tucson: Arizona State Museum.
- Reed, E.K. 1948. The Western Pueblo archaeological complex. *El Palacio* 55:9–15.
- Riggs, C.R. 2002. *The architecture of Grasshopper Pueblo*. Salt Lake City: University of Utah Press.
- Spielmann, K.A. 1998. The Pueblo IV period: History of research. In *Migration and reorganization: The Pueblo IV period in the American Southwest*, ed. K.A. Spielmann, 1–17. Anthropological Research Papers 51. Tempe: Arizona State University.
- Spier, L. 1919. *Notes on some Little Colorado ruins*. Anthropological Papers of the American Museum of Natural History, vol. 18, pt. 5. New York: American Museum of Natural History.
- Triadan, D. 1997. *Ceramic commodities and common containers: Production and distribution of White Mountain Red Ware in the Grasshopper region, Arizona*. Anthropological Papers of the University of Arizona 61. Tucson: University of Arizona Press.
- Van Dyke, R.M., S.A. Herr, B.J. Mills, and S. Van Keuren. 1996. Excavation and survey manual of the University of Arizona Archaeological Field School, Silver Creek Archaeological Research Project, manuscript on file, Department of Anthropology, University of Arizona.
- Van Keuren, S. 2000. Ceramic decoration as power: Late prehistoric design change in east-central Arizona. In *Alternative leadership strategies in the Prehispanic Southwest*, ed. B.J. Mills, 79–94. Tucson: University of Arizona Press.
- . 2001. *Ceramic style and reorganization of fourteenth century Pueblo communities in east-central Arizona*. Ph.D. dissertation, Department of Anthropology, University of Arizona. Ann Arbor, Michigan: University Microfilms.
- Woodman, J.C. 1991. *Clay procurement in the prehistoric Southwest: An example from Fourmile Ruin, east-central Arizona*. Unpublished master's thesis, Department of Anthropology, Northern Arizona University, Flagstaff.

Received 8 November 2004; accepted 28 June 2005.



Natural
History
Museum

of Los Angeles County

900 Exposition Boulevard
Los Angeles, California 90007