NPS Form 10-900
(Rev. 10-90)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

792

NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Rattlesnake Point Pueblo

other names/site number AZ Q:11:118 (ASM), 78055 (NAU)

2. Location

street & number Lyman Lake State Park, PO Box 1428 not for publication ___
city or town St. Johns vicinity XX
state Arizona code AZ county Apache code 001 zip code 85936

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this X nomination ____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property X meets ____ does not meet the National Register Criteria. I recommend that this property be considered significant ___ nationally X statewide ___ locally. (___ See continuation sheet for additional comments.)

James W. Garrison AZSHPO 6/15/01
Signature of certifying official Date

ARIZONA STATE PARKS.
State or Federal agency and bureau

In my opinion, the property ____ meets ____ does not meet the National Register criteria. (___ See continuation sheet for additional comments.)

Signature of commenting or other official Date

State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:

Edson H. Beall 8/2/01

✓ entered in the National Register
___ See continuation sheet.
___ determined eligible for the National Register
___ See continuation sheet.
___ determined not eligible for the National Register
___ removed from the National Register
___ other (explain): _____

Signature of Keeper — Date of Action

5. Classification

Ownership of Property (Check as many boxes as apply)

XX private
___ public-local
___ public-State
___ public-Federal

Category of Property (Check only one box)

___ building(s)
___ district
XX site
___ structure
___ object

Number of Resources within Property

Contributing	Noncontributing	
_____	_____	buildings
1	0	sites
_____	_____	structures
_____	_____	objects
1	_____	Total

Number of contributing resources previously listed in the National Register 0

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.)

N/A

6. Function or Use

Historic Functions (Enter categories from instructions)

Cat: Domestic — Sub: Multiple Dwelling

Current Functions (Enter categories from instructions)

Cat:	Sub:
Recreation and Culture	Outdoor recreation
	Monument/marker

7. Description

Architectural Classification (Enter categories from instructions)

Other - Masonry Pueblo

Materials (Enter categories from instructions)

foundation
roof
walls Sandstone
other

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

____ A. Property is associated with events that have made a significant contribution to the broad patterns of our history.

____ B. Property is associated with the lives of persons significant in our past.

____ C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

XXX D. Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations (Mark "X" in all the boxes that apply.)

____ A. owned by a religious institution or used for religious purposes.

____ B. removed from its original location.

____ C. a birthplace or a grave.

____ D. a cemetery.

____ E. a reconstructed building, object,or structure.

____ F. a commemorative property.

____ G. less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance (Enter categories from instructions)

Archaeology - Prehistoric
Ethnic Heritage - Native American

Period of Significance ca. A.D.1300-1400

Significant Dates N/A

Significant Person (Complete only if Criterion B is marked above)

Cultural Affiliation Anasazi
Hopi
Zuni

Architect/Builder

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.)

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9. Major Bibliographical References

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Bibliography (Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS)

___ preliminary determination of individual listing (36 CFR 67) has been requested.
___ previously listed in the National Register
___ previously determined eligible by the National Register
___ designated a National Historic Landmark
___ recorded by Historic American Buildings Survey # _____
___ recorded by Historic American Engineering Record # _____

Primary Location of Additional Data:

___ State Historic Preservation Office
___ Other State agency
___ Federal agency
___ Local government
XXX University
___ Other

Name of repository: Department of Anthropology, Arizona State University

10. Geographical Data

Acreage of Property ca. 1

UTM References (Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing	Zone	Easting	Northing
1	12	0651585	/ 3802250	12	0651568	/ 3802195
2	12	0651554	/ 3802258	12	0651546	/ 3802201

center point 651571 3802230

___ See continuation sheet.

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Andrew Duff, Archaeologist

organization Department of Anthropology, Ariz. State date 23 September 1997

street & number Box 872402 telephone 965-6213 (602)

city or town Tempe, state AZ zip code 85287

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional Items (Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.)

name Lyman Water Company

street & number P.O. Box 271 telephone ____

city or town ST. Johns state AZ zip code 85936

7. DESCRIPTION

Summary:

Rattlesnake Point Pueblo is a single story masonry pueblo located within Lyman Lake State Park, east of Highway 180 (formerly Highway 666) between St. Johns and Springerville, Apache County, Arizona. The site is on Lyman Water Company land subject to a long-term, renewable lease to Arizona State Parks. Within the park, the site was constructed atop a low ridge overlooking the Little Colorado River, but now rests at the tip of a ridge that extends into Lyman Lake. The pueblo is roughly rectangular in plan, contains about 85 rooms, a small plaza or interior courtyard and the remains of a communal ceremonial structure. The site was occupied between about AD 1325 and 1390 and is associated with the Western Pueblo cultural complex.

Rattlesnake Point Pueblo represents a well preserved fourteenth century site that has already provided important archaeological information regarding the occupation and abandonment of the Upper Little Colorado River area. Its location within a state park provides for public visitation and the opportunity to inform the visiting public about the prehistory of the region, and more generally, about archaeology. Rattlesnake Point Pueblo can provide substantial information relating to a number of important research questions grouped into three domains: prehistoric environment and chronology; regional political organization and interaction in late Pueblo prehistory; and the process and timing of site and regional abandonments.

Physical and Environmental Setting:

Rattlesnake Point Pueblo is located on the tip of a ridge that extends into Lyman Lake within Lyman Lake State Park. Lyman Lake encompass lands inundated after the construction of Lyman Dam, first in 1912, and again in 1915 (Hoffman 1981:A-19, B-59). Lyman Lake captures the flow of the Little Colorado River, the major drainage within the region. Prior to dam construction, the lake area was a shallow valley with an above average water supply. Rattlesnake Point would have been on an elevated ridge overlooking the floodplain of the Little Colorado River. The elevation of Rattlesnake Point Pueblo is approximately 5980 feet above mean sea level.

Rattlesnake Point derives its name from its topographic setting, creating the impression of a Rattlesnake tail when viewed on a map or from the air (Figure 1, Photos 1 and 2). It is bounded by water on three sides when the lake is at or near capacity. At maximum water level, when water is running over the dam spillway, the site can become completely surrounded by water. Maximum water depth on the normally dry portion is only a few inches. The creation of Lyman Lake, its subsequent cyclical lake levels

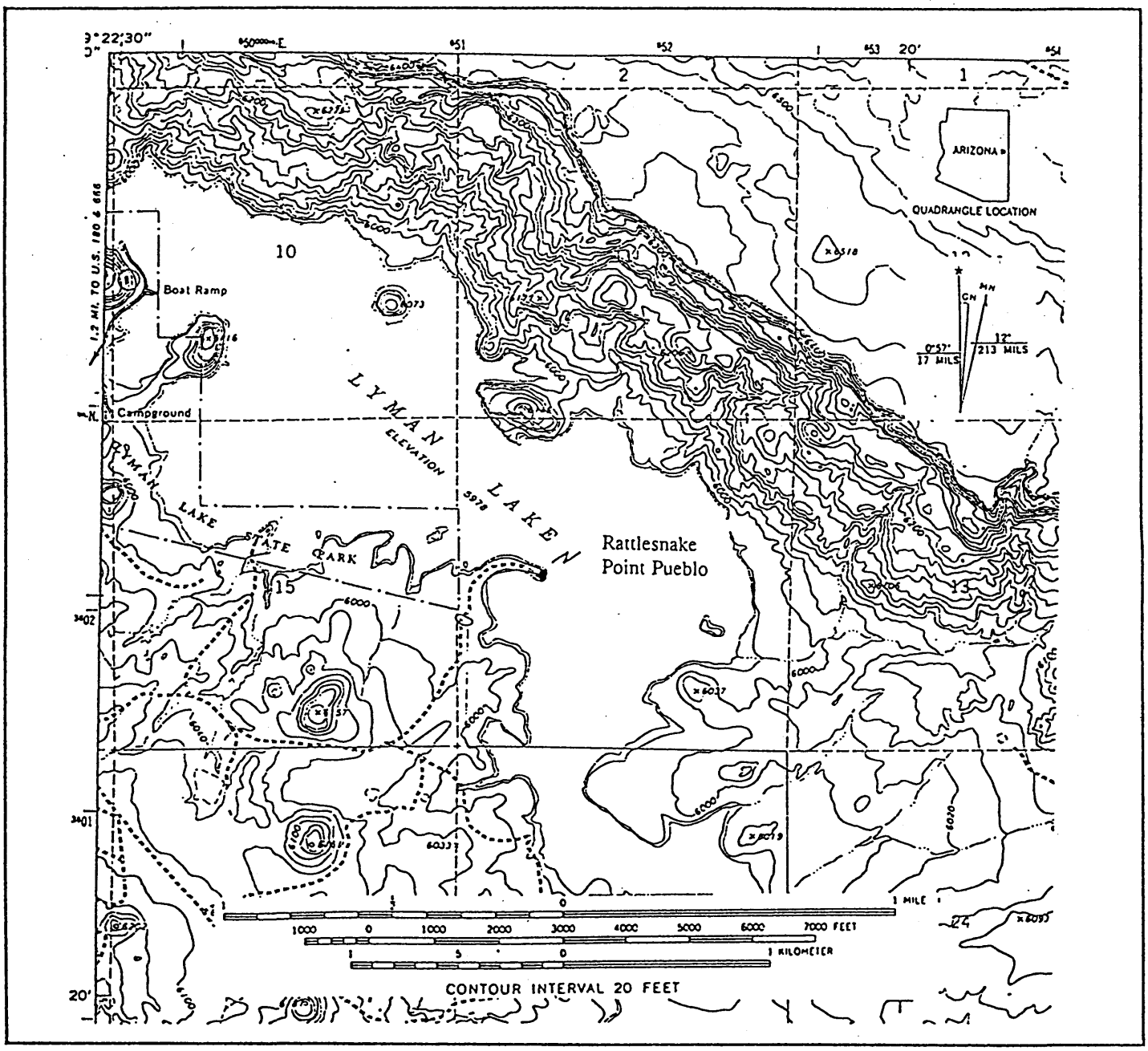

Figure 1. Location of Rattlesnake Point Pueblo (AZ Q:11:118 ASM). Map source: USGS Lyman Lake, Arizona 7.5 minute series, 1971 (Photorevised 1984).

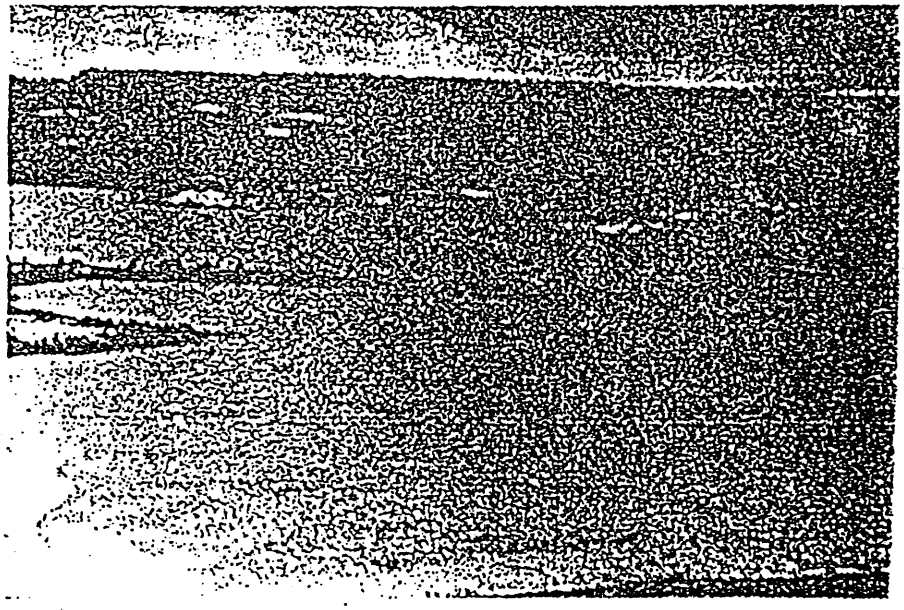

Photo 1. Aerial view to site from the southwest showing topographic setting. Site is located at tip of ridge extending into lake in right-center of frame.

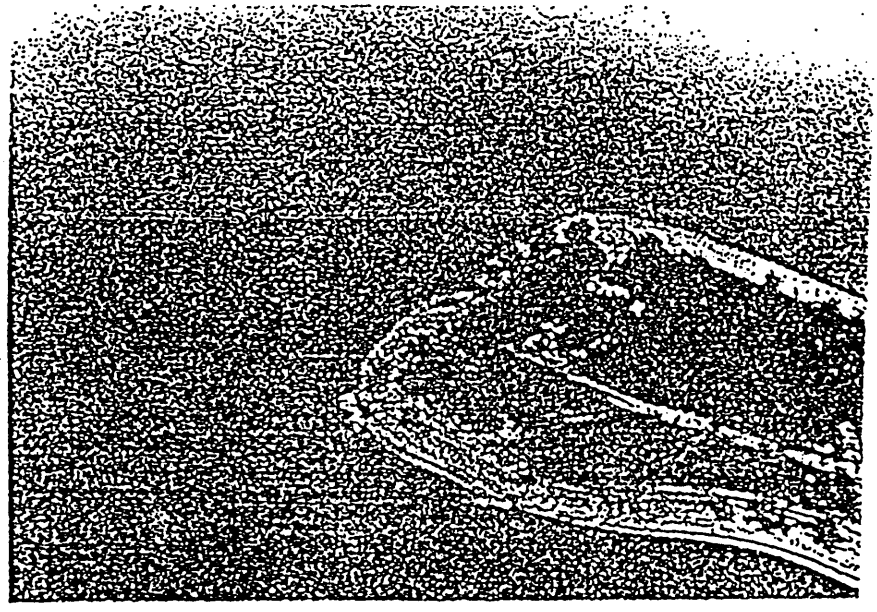

Photo 2. Aerial close up of site prior to excavation. Site is indicated by darker vegetation.

associated with winter runoff and summer water releases for irrigation has impacted the condition of Rattlesnake Point Pueblo (discussed below).

The region surrounding Rattlesnake Point is characterized by volcanic cones and lava capped mesas, the result of Quaternary volcanism (Akers 1964). Lyman Lake itself is located in a valley formed between two such mesas that trend from northwest-to-southeast and average 6300 feet in elevation. The frequency of lava flows declines as one moves north from the site. Several Travertine cones, representing former hot springs (Miller and Larsen 1975:31), create local high points surrounding Rattlesnake Point, including one immediately north of the site across the (then) river. The primary geological formation exposed in the area is the Triassic period Chinle (Wilson et al. 1960). The Chinle formation is exposed on the lower terraces above the lake, capped by the Quaternary basalt flows. The Chinle is composed of shale, clay, and sandstone (Wilson 1962:46), and sandstone from this formation was used in construction of the pueblo.

Soils adjacent to Rattlesnake Point Pueblo belong to two soil associations: the Moenkopi-Sandstone and the Tours-Jocity (Miller and Larsen 1975). The Moenkopi-Sandstone association is characterized by shallow, sandy soils formed from sandstone and sandstone outcrops, and supports short grasses and shrubs (Miller and Larsen 1975:4). This soil association occurs in much of the area southwest and up slope from Rattlesnake Point. Gravelly loam is found in areas of gradual slope characterized by gentle runoff within this association (Miller and Larsen 1975:17), and could have provided an attractive watershed for crops. The Tours-Jocity soil association is found in the flood plains and alluvial fans adjacent to, and below Rattlesnake Point Pueblo, along the river course now partially or fully submerged. This association consists of deeper, richer soils capable of supporting crops (Miller and Larsen 1975:4). These soils have moderate water availability for agriculture, are productive for wild grasses, and enhanced productivity is possible with irrigation (Miller and Larsen 1975:10-11). The river bottom and drainage channels emptying into it probably contained rich and well watered, but unstable, alluvial soils that would have been productive for agriculture and wild grasses. The prehistoric occupants of the region are likely to have constructed small, gravity irrigation channels adjacent to the river to enhance productivity.

Rattlesnake Point falls within the Upper Sonoran and Transitional Life-zones, and is dominated by Grassland vegetation (Lowe 1964; Lowe and Brown 1982). Three plant communities occur in the immediate area of Rattlesnake Point Pueblo: juniper-pinyon; grassland; and riparian. Under story in these three is often similar, dominated by short grasses including blue grama (Bouteloua gracilis), grama (Bouteloua spp.), galleta grass (Hilaria jamesi), Indian ricegrass (Oryzopsis hymenoides), Western

wheatgrass (Agropyron smithii), with rabbitbrush (Chrysothamnus spp.), snakeweed (Gutierrezia sarothrae), sage (Artemesia spp.), Mormon tea (Ephedra spp.), and prickly pear (Opuntia spp.) also common. Trees are generally widely spaced and dominated by juniper (Juniperus spp.). The riparian plant association is found at, or near the waterline of Lyman Lake, in several side drainages, and other locations with shallow ground water. It is characterized by cottonwood (Populus fremontii), saltcedar or tamarisk (Tamarix pentandra), Russian thistle (Salsola wrightii), numerous reeds and other short grasses. Tamarisk and Russian thistle are introduced species. Currently, tamarisk rings the perimeter of Rattlesnake Point Pueblo corresponding approximately with the high-water line. The original river course was probably dominated by cottonwoods, lush grasses and reeds, and pinyon may have grown in restricted locations of the channel.

Common fauna associated with these communities include mule deer (Odocoileus hemionus), coyote (Canus latrans), pronghorn antelope (Antilocapra americana), black-tailed jackrabbit (Lepus californicus), cottontail (Sylvilagus spp.), ground squirrel (Spermophilus spp.), kangaroo rat (Dipodomys spp.), Gunnison's prairie dog (Cynomys gunnisoni), and woodrat (Neotoma cinerea arizonae). Numerous other species would have been attracted to the riverine environment created by the flow of the Little Colorado River.

Culture History: Overview of Pueblo IV

Between A.D. 1275 and 1400, known as the Pueblo IV period, the northern southwest witnessed extraordinary changes in social organization and settlement structure. The Pueblo IV period is characterized by the movement of populations from dispersed settlements into large, planned structures resembling historic and modern Pueblo villages in architectural form. Populations across the Colorado Plateau consolidated into large settlements that are spatially clustered, separated by unoccupied zones. Pueblo IV towns range from 50 or 60 rooms to more than 1500 rooms, and are located in "clusters" or groupings associated with major rivers. Due to their large size and over 100 years of archaeological research attention, archaeologists generally believe that nearly all substantial settlements dating to Pueblo IV times have been recorded. The locations of all known Pueblo IV period sites in the Western Pueblo area, grouped into interpretive settlement clusters, are plotted in Figure 2. Not all of these sites were occupied for the entire span between A.D. 1275 and 1400.

There are two classes of regionally oriented arguments specific to the Western Pueblo area during Pueblo IV times: these are the development of cults (Adams 1991; Crown 1994) and alliances (Upham 1982; Upham and Reed 1989; Upham et al. 1994). Although all deal with regional level processes, each study emphasizes different regional scales.

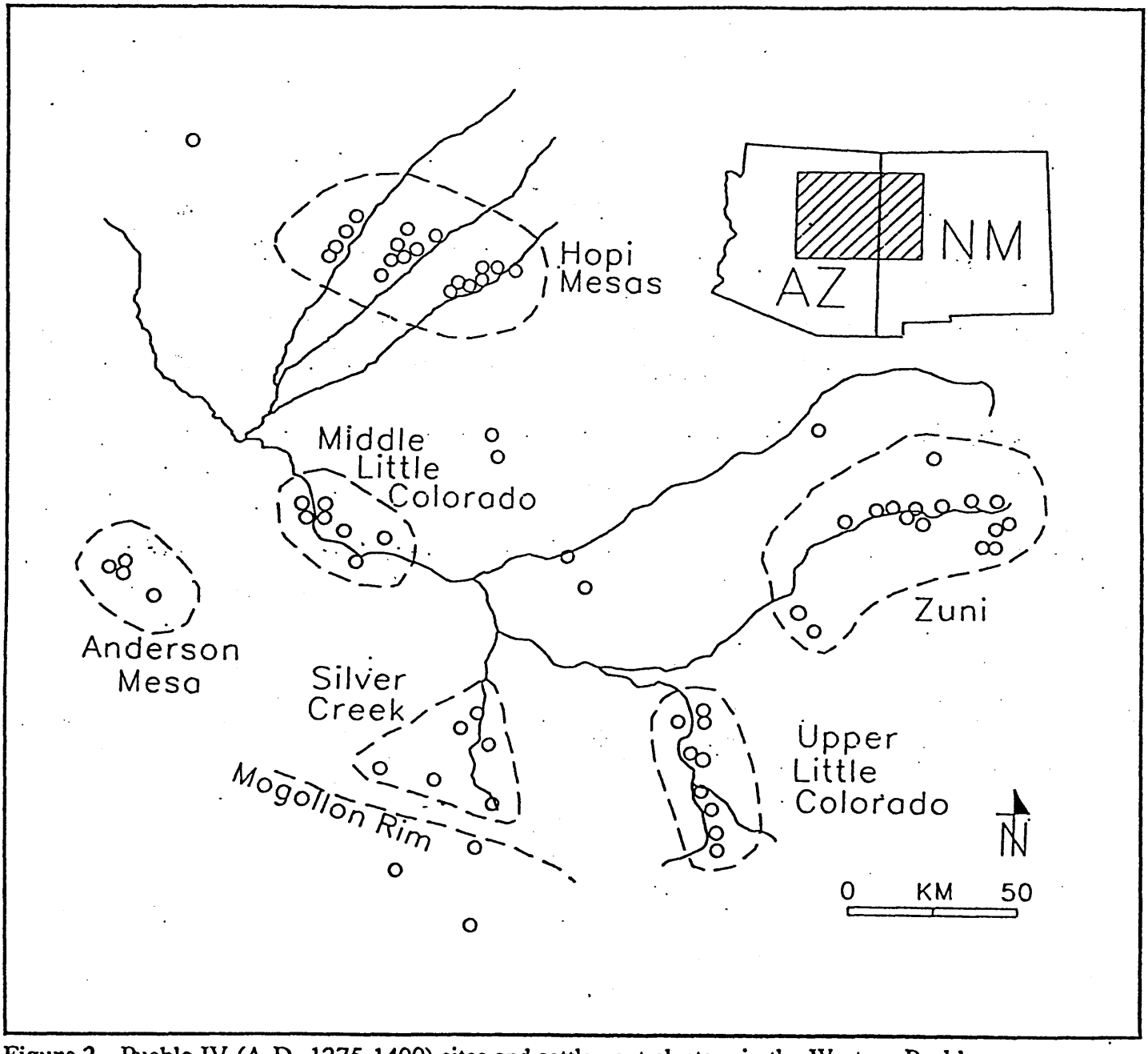

Figure 2. Pueblo IV (A.D. 1275-1400) sites and settlement clusters in the Western Pueblo area.

Adams (1991) argues that the Katsina Cult became an important structuring force during the Pueblo IV period. He contends that the Katsina Cult was adopted to facilitate integration and cooperation in recently founded communities that contained "immigrants from divergent social and political backgrounds" (Adams 1991:186). Citing transformations in site layout, the distribution and dating of plazas and square kivas, and Katsina-related iconography in rock art, ceramics and kiva murals, Adams (1991) argues that the Katsina cult developed in the Upper Little Colorado at about A.D. 1275. Adams' Upper Little Colorado encompasses the Upper Little Colorado and Silver Creek settlement clusters, and portions of the Mogollon Mountains (see Figure 2). At about A.D. 1330, Adams argues that a more "rain-oriented" and iconographically identifiable, modified version of the cult spread from Hopi to the Rio Grande (1991).

Crown (1994) has proposed a more generalized Southwestern Cult that sees the process as operative at a much larger scale than Adams' Katsina Cult, but one that also dates critical changes similarly. The spatial scale of Crown's study encompasses portions of all three Southwestern culture areas (Hohokam, Mogollon and Anasazi), including the Western Pueblo area. Concentrating on a single material class, Salado Polychrome ceramics, Crown examined their production, distribution, use, iconography and their relationship to ideology (1994). The development of the Pinedale design-style horizon, a tradition that resulted from the interaction of Tusayan-Kayenta migrants and Mogollon Rim populations, spread rapidly and is present on ceramics found throughout the Western Pueblo area. Crown argues that the Pinedale design style contains icons representative of participation in a Southwestern Cult concerned with fertility and weather control. The iconographic associations on these vessels demonstrably produced in a number of different areas (Crown and Bishop 1991, 1994) suggests a shared symbolic and ideological system rather than a common economic or ethnic phenomenon (Crown 1994). Based on the widespread distribution of Pinedale design style ceramics, Crown argues this cult encompassed most of the occupied Southwest in the fourteenth century. At about A.D. 1325, the unity seen in the Pinedale design style gives way to greater regional stylistic variation. Stylistic divergence leads Crown (1994) to suggest that this may relate to sect development within the Southwestern cult framework.

Upham's alliance model (1982; Upham et al. 1994) is the most prominent argument for a regional system in the late prehistoric Western Pueblo. Alliances are defined as "a mechanism that unites spatially separate groups in economic and sociopolitical relationships" (Upham et al. 1994:191; see also Plog 1983, 1984). The alliance model is predicated on entities politically organized at the level of the settlement cluster. Six settlement clusters, from 10 to 40 miles in length, emerged in the Western Pueblo area at this time (as indicated on Figure 2). With a few notable exceptions, each cluster is identified with the production of visually distinct ceramics and spatial proximity. Settlement clusters were quantitatively derived using site nearest-neighbor measures and ideas from central place theory (Jewett 1989; Upham

1982; Upham and Reed 1989). Within individual settlement clusters, site size differentials were believed to indicate an organizational hierarchy, while resident elites at sites were argued to manage the productive surpluses of local areas (Upham 1982, 1983, 1984). Part of the rationale for local settlement configurations (site spacing) was to facilitate the movement of foodstuffs between pueblos (Upham 1982, 1983; also Lightfoot 1979, 1983, 1984).

Positing that settlement clusters could be treated as single organizational entities permitted Upham (1982) to use decorated ceramic assemblage information from single sites within a district to generalize about exchange relationships between different districts. Exchanged ceramics recovered in frequencies greater than expected by a distance-decay model were interpreted as evidence for the existence of alliances between various districts (Upham 1982). Upham posited the existence of two primary alliances for the Western Pueblo area: the Jeddito alliance encompassing the Hopi Mesas, the Middle Little Colorado, and Anderson Mesa, and the Salado alliance, indirectly associated with areas below the Mogollon Rim. Two intermediate areas, Silver Creek and the Upper Little Colorado were also thought to represent smaller scale alliances situated between, but interacting with the Salado and Jeddito alliances. Zuni also represents an alliance, but one that was relatively less integrated with the other existing alliances (Upham 1982).

A number of important changes in settlement, interaction, iconography, ceramic decoration and ideology occurred over a very wide area during Pueblo IV. These changes were clearly operative at pan-regional levels, and all populations were influenced by these developments.

Research History: Pueblo IV in the Upper Little Colorado Region

The Upper Little Colorado River as will be used here refers to areas adjacent to the Upper Little Colorado River between its headwaters in the White Mountains to its confluence with Carrizo Wash and the Zuni River northwest of St. Johns, Arizona (as depicted in Figure 2). The Upper Little Colorado River region is located at the boundary between two traditional Southwestern culture areas (Reed 1946, 1950; Hantman 1983, 1984). Sites in the region exhibit traits from both Anasazi and Mogollon traditions, with distinctions between these traditions disappearing by A.D. 1250, after which sites and this are referred to as Western Pueblo due to their similarity to historic Pueblo settlements (Haury 1988).

Between 1880 and 1885 Adolph Bandelier (1892) traveled through the Zuni area and recorded sites along the Upper Little Colorado River as a part of a widespread investigation of the Southwest. Although an excellent historian, Bandelier's notes and site maps for the region are not overly helpful (Kintigh 1985:3). Frank Hamilton Cushing, an early anthropologist who lived among the Zuni in the 1880s, visited several

sites and caves in the vicinity of Rattlesnake Point Pueblo. Cushing probably followed the course of the Little Colorado and he may have passed by the site. However, he did not specifically discuss or illustrate it in his unpublished journals. He did a sketch map and made some cursory notes about Casa Malpais, a similar site located just outside Springerville, approximately 15 miles to the south.

An extensive survey by Leslie Spier (1917) recorded several Zuni area sites in about the same area as examined by Bandelier. Spier made systematic ceramic collections from the surfaces of many sites, and conducted minor excavations at some. Spier was able to provide a chronological framework for Zuni area sites that has been confirmed by 75 years of additional research (Kintigh 1985:3). Although he lacked absolute dates, the temporal relationships among the sites he recorded were largely substantiated by Kintigh's (1985, 1990) comprehensive analysis of the late prehistoric sites of the Zuni area. Spier then conducted a less extensive examination of sites located along the Little Colorado River, extending into the White Mountain area (1918). During this excursion, Spier recorded four of the known Pueblo IV towns located along the Upper Little Colorado River. Spier was able to extend the chronological framework he had developed for the Zuni area to include many of the sites recorded on this less intensive reconnaissance. These relationships have also been substantiated by later archaeological research. Spier's notes are the only information we have for many sites that have since been destroyed by development. Two such examples are Spier 175 and 176, both sites in St. Johns known only from Spier's work and collections.

Danson was involved with an extensive survey and excavation project with Harvard (1957) that concentrated on the area south and east of Springerville, but ventured into the Upper Little Colorado River area near Casa Malpais and Hooper Ranch. In 1956 and 1958, William Beeson (1966) surveyed in the area of the as part of his dissertation research. Beeson conducted extensive survey within a 5200 square kilometer (2000 square mile) area in the vicinity of St. Johns, Arizona. His survey covered about 1500 square kilometers (600 square miles) at some level of intensity and located 325 sites, most of which were along Hardscrabble Wash, the Zuni River, Jaralosa (Jaramillo) Draw, Aguaje Draw, and the Little Colorado River. Rinaldo and (later) Longacre began survey along the Upper Little Colorado River, and extended this research to the west towards Snowflake. Longacre reports on this research in a variety of *Fieldiana* volumes (1961, 1962, 1964). Longacre indicates that a total of 5000 mi^2 was surveyed and 170 sites were recorded, some of which were multi-component. Several excavation projects associated with the Field Museum of Natural History were also completed during this period. Rattlesnake Point Pueblo appears to have been visited by William Longacre during his reconnaissance efforts. It was again recorded by Charles Hoffman during a reconnaissance project directed towards documenting historic properties in the area between St. Johns and Springerville in the 1970s (Hoffman 1981). It was

designated site number 78055 (NAU) in the Northern Arizona University site files. During a systematic survey of all lands within Lyman Lake State Park in 1992, the site was rerecorded, mapped and surface collected (Duff and Kintigh 1993). At this time, it was registered with the Arizona State Museum and designated AZ Q:11:118 (ASM).

The Pueblo IV period on the Upper Little Colorado River comprises nine towns located between Springerville and St. Johns, Arizona (Figure 3). Settlements can be temporally divided into Early Pueblo IV (AD 1275-1325) and Late Pueblo IV (AD 1325-1385/1400). Our best estimate for regional abandonment is between A.D. 1385 and 1400. Casa Malpais, Hooper Ranch, Spier 175 and the early component of the Raven Site constitute the Early Pueblo IV occupation, with most of these located in the southern Upper Little Colorado River area. The Late Pueblo IV occupation falls into two clusters; a southern group comprised of Rattlesnake Point, Baca, Raven and Hooper Ranch, and a northern group of Table Rock Pueblo and Spier 176. The Pueblo IV pueblos of the Upper Little Colorado River contrast sharply with contemporaneous sites in the Zuni, Hopi and Silver Creek areas. Upper Little Colorado River towns are not plaza oriented and are comparatively small. The Raven site is the exception, having a large plaza and an estimated 300 Pueblo IV rooms.

Excavations at Table Rock and Hooper Ranch Pueblos, both Pueblo IV sites, by Martin and his colleagues provide the most detailed information available to date (Martin and Rinaldo 1960; Martin et al. 1961, 1962). These excavations are well documented and were more extensive than is feasible given modern research protocols. No additional excavations were conducted on Pueblo IV sites in the Upper Little Colorado river area until the 1980s. In the late 1980s, researchers conducted excavations and stabilization efforts at Casa Malpais near Springerville. Research has continued to date, and the town of Springerville recently purchased the site. Work at the Raven site (AZ Q:11:48 ASM) began about 1990. Several rooms in both the early and later portions of this large site have been excavated, and some of these have also been stabilized. During the summers of 1993-1995, Arizona State University conducted excavations at Rattlesnake Point Pueblo through field school research programs. Additionally, in 1995, several small test excavations were conducted in Baca Pueblo. The excavation work by Arizona State University is now complete, while work continues at Raven and Casa Malpais.

Site Description:

Rattlesnake Point Pueblo was a single-story, masonry structure that contained approximately 85 rooms, a small open courtyard or plaza and a communal ceremonial structure (great kiva) (Figure 4). The pueblo was constructed from sandstone available in the immediate vicinity. The local sandstone is not tabular or extremely regular; thus the walls consist of sandstone embedded in a heavy matrix of mud mortar. One

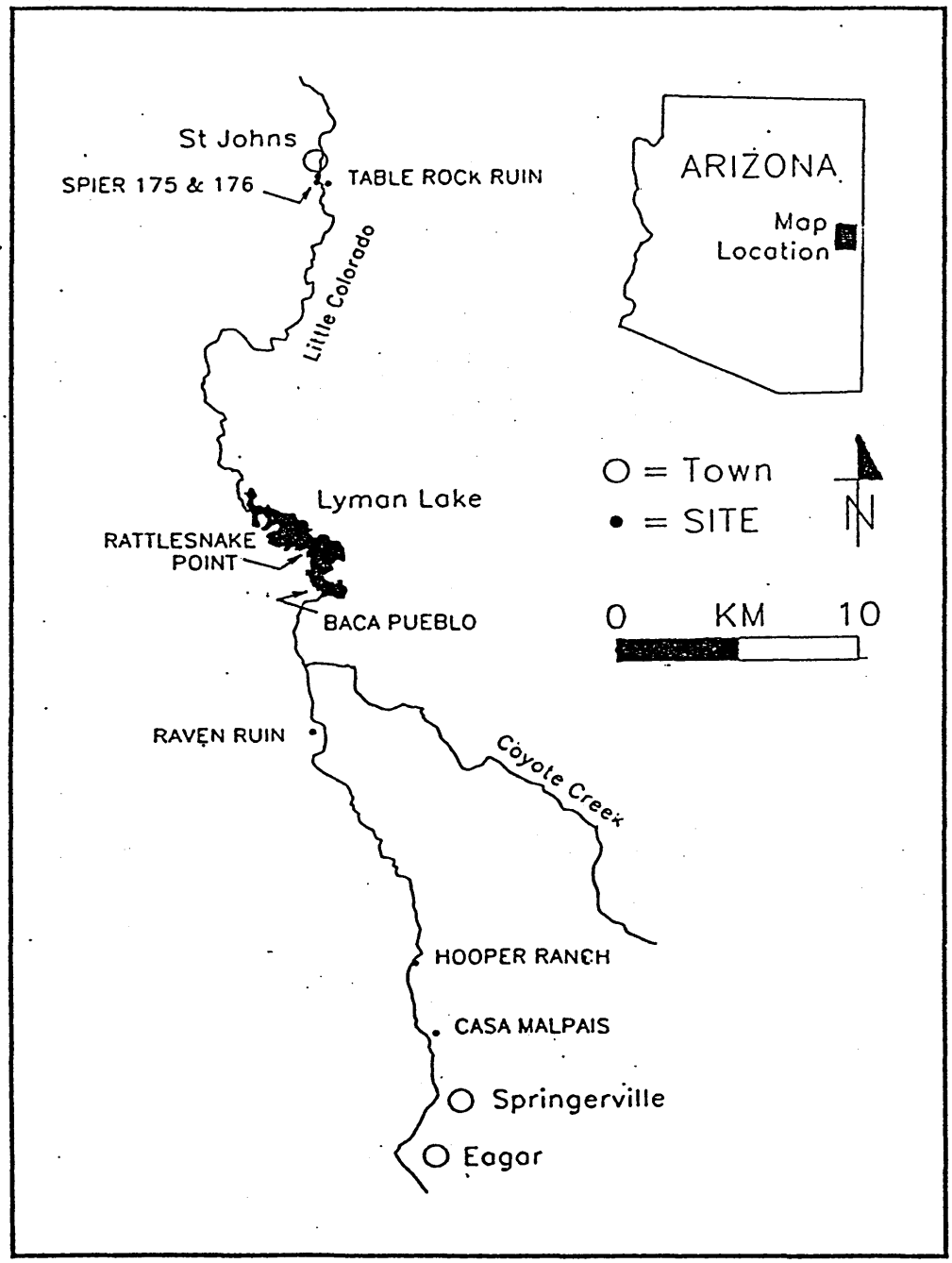

Figure 3. Upper Little Colorado Region Pueblo IV site locations.

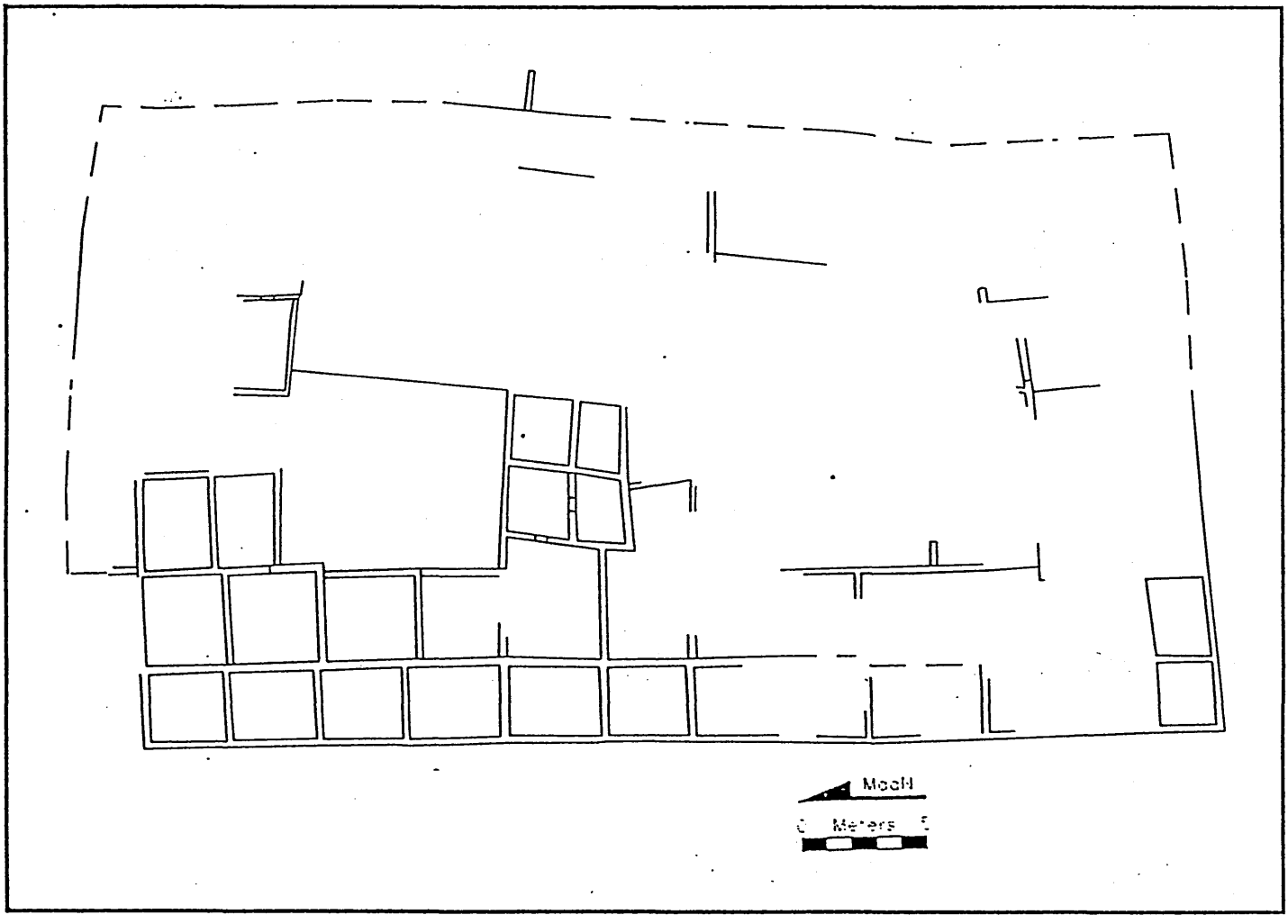

Figure 4. Plan of Rattlesnake Point Pueblo (AZ Q:11:118 ASM) displaying confirmed walls and architectural extent.

face of each stone was shaped to provide a smooth exterior, and this face constitutes the visible portion of the wall. The walls contain no core, and are held together by the interwoven, unshaped portions of each piece of sandstone fixed in mortar. Probably due to the poor fracture quality of the sandstone, the walls appear to be approximately 50% sandstone and 50% mud-mortar. All walls are between 25-35 cm in thickness, and remain preserved to heights varying from less than 30 cm to more than 2 m. It appears that most rooms were originally about 1.8-2 m tall, and were roofed with wood. For most rooms, there appears to have been two primary support beams spanning the longer axis of the room, over which a number of secondary beams were placed across the shorter axis. This was covered by smaller limbs and/or a reed matting and a thick layer of mud mortar. This construction technique is similar to historic Puebloan practices illustrated by Mindeleff (1989:148-151, Figure 37).

Rooms vary in size, but many are relatively large by Pueblo IV standards. Rooms are 9.25 m^2 on average, but range from 5 m^2 to 13.25 m^2. Several rooms contain hearths, all of which were constructed into the floor and lined with stone slabs. Room floors are generally packed and compacted earth, although one plastered floor was encountered. One room had a floor that was partially stone-paved, and the floor of a small kiva was entirely stone-paved. Plaster was preserved on several walls, but it is not clear if all walls were originally plastered. Most rooms appear to have been entered via ladder through roof hatches, as few rooms contained doorways or other ground-level access. One filled-in doorway was noted and several windows along the west exterior wall also appear to have been filled-in, attesting to remodeling during the course of occupation.

Although only one story in height, Rattlesnake Point was constructed on uneven terrain which resulted in varying floor and roof heights that probably produced a terraced facade, giving the appearance of more than one story upon approach. This effect would have been more pronounced when viewed from below (along the river), as the rooms extended somewhat down slope on the eastern side of the pueblo. Figure 5 represents an artists reconstruction of Rattlesnake Point as it may have appeared from the south.

Current Condition and Impacts:

Currently, the pueblo consists of a large rubble mound that represents the effects of abandonment and subsequent weathering of the architecture. At, or sometime after abandonment, an intense fire burned much of the pueblo. The roof beams and flammable room contents burned, resulting in roof collapse. In most cases, the roof appears to have fallen directly onto the room floors below. In some cases, this resulted in slumped or tilted roof section as one side collapsed before the remainder of the roof. In the following 600 years, weathering has resulted in erosion of the mortar matrix that comprises about 50% of all walls, and mortar and wall stones collapsed into the rooms. At some point, a stable state was reached

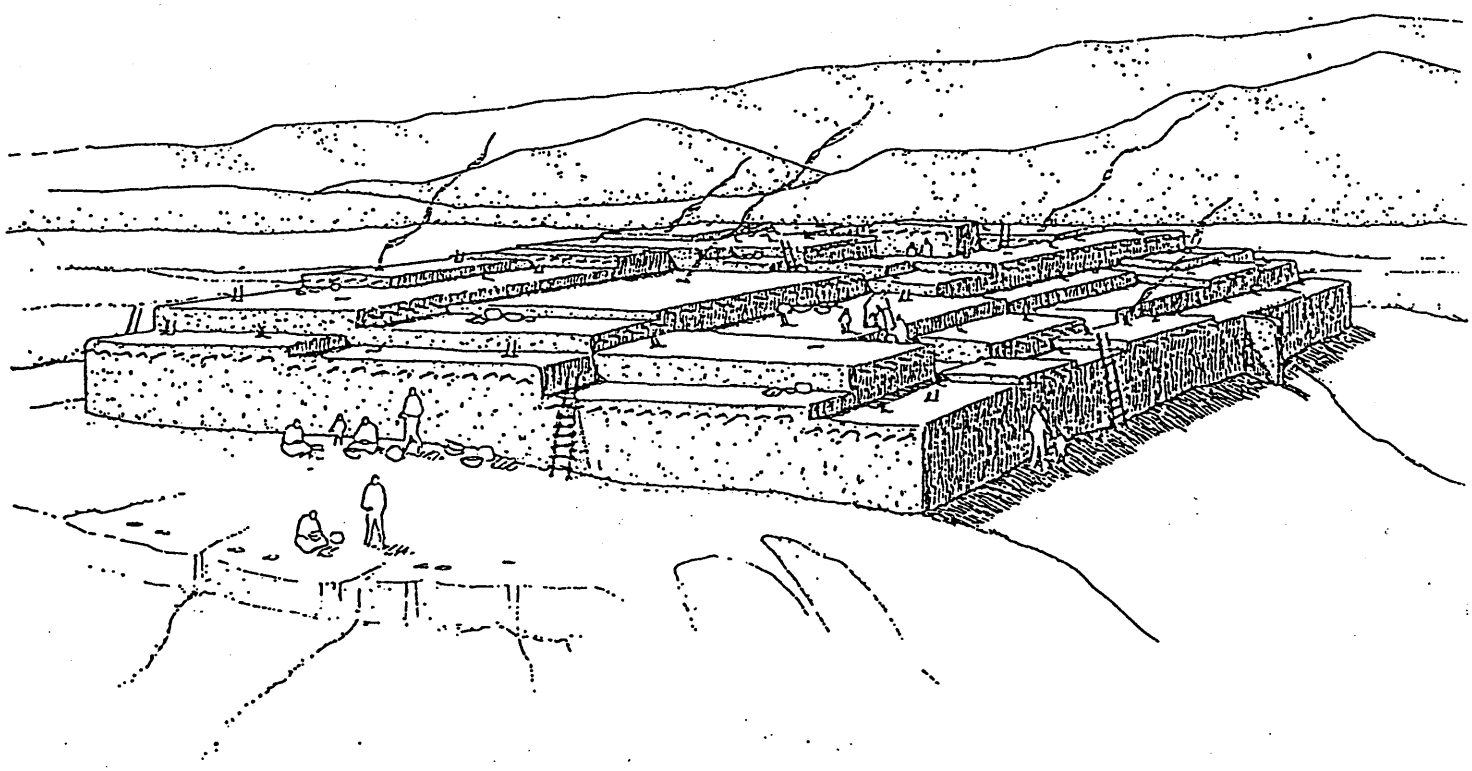

Figure 5. Artist's reconstruction of Rattlesnake Point Pueblo (view from southeast, by Glenna Cain).

when about half of the original wall height had collapsed leading to a support matrix for the remaining walls and cessation of direct exposure to the elements.

Excavations at Rattlesnake Point Pueblo by Arizona State University provide a basis for discussing preservation and the artifactual content of the site. Several complete rooms were excavated to floor and a number of additional rooms tested with 1-by-2 m excavation units. Significant effort was devoted to wall-trenching in order to provide a more complete map of the site and we also conducted excavations outside the west wall of the site in a midden area (Figure 6, midden areas are 4 and 17). During excavation, almost all rooms were characterized by a consistent stratigraphic sequence that, from the current surface down (Photo 3), consisted of: a 10-30 cm layer of recent soil accumulation with occasional historic or recent material; a layer with between 60-120 cm of wall collapse characterized by very low artifact density and abundant sandstone blocks; a layer ranging from 10-40 cm that represents the collapsed roof characterized by burnt roof beams and daub and a high density of cultural material thought to have been present on the roofs when the pueblo was abandoned; a room floor with dense associated deposits ranging from less than 5 cm up to 25 in depth. The roof and floor strata contain abundant cultural materials including reconstructible ceramic vessels, lithic tools and debris, plant and animal remains, and food processing materials. The preservation within excavated rooms was generally excellent, in large part due to the burning of the site. Areas impacted by water (wave action or water table) from Lyman Lake are characterized by poorer preservation of organic remains. All artifacts excavated by Arizona State University are permanently curated by the Department of Anthropology, Arizona State University, and are accessible to interested parties.

Early this century, the Little Colorado River was dammed to create a reservoir that could be used to irrigate fields between the dam and St. Johns. Once constructed, Lyman Dam created Lyman Lake, flooding much of the valley the pueblo originally overlooked. The lake level varies with annual runoff and seasonal irrigation. As a direct result of this dam, Rattlesnake Point Pueblo now rests on the shores of Lyman Lake when the lake is full to capacity, which usually occurs in late spring as the snowpack in the White Mountains melts. At capacity, the shoreline extends up to parts of the pueblo and has resulted in the erosion of two rows of rooms along the eastern slope and southeastern corner of the site. Wave action created by the summer winds and motorboats have deflated the cultural deposits in these areas. Most of the material that had been in these rooms appears to have been mixed with deposits from adjacent rooms and/or eroded downslope into silts normally below lake level. Architectural features such as fireplaces, benches and walls, and deposits of cultural material are still present on this eroded edge of the pueblo. Once lake levels begin to draw down due to irrigation, usually beginning in June, the site is not subjected to additional lake exposure until the following winter.

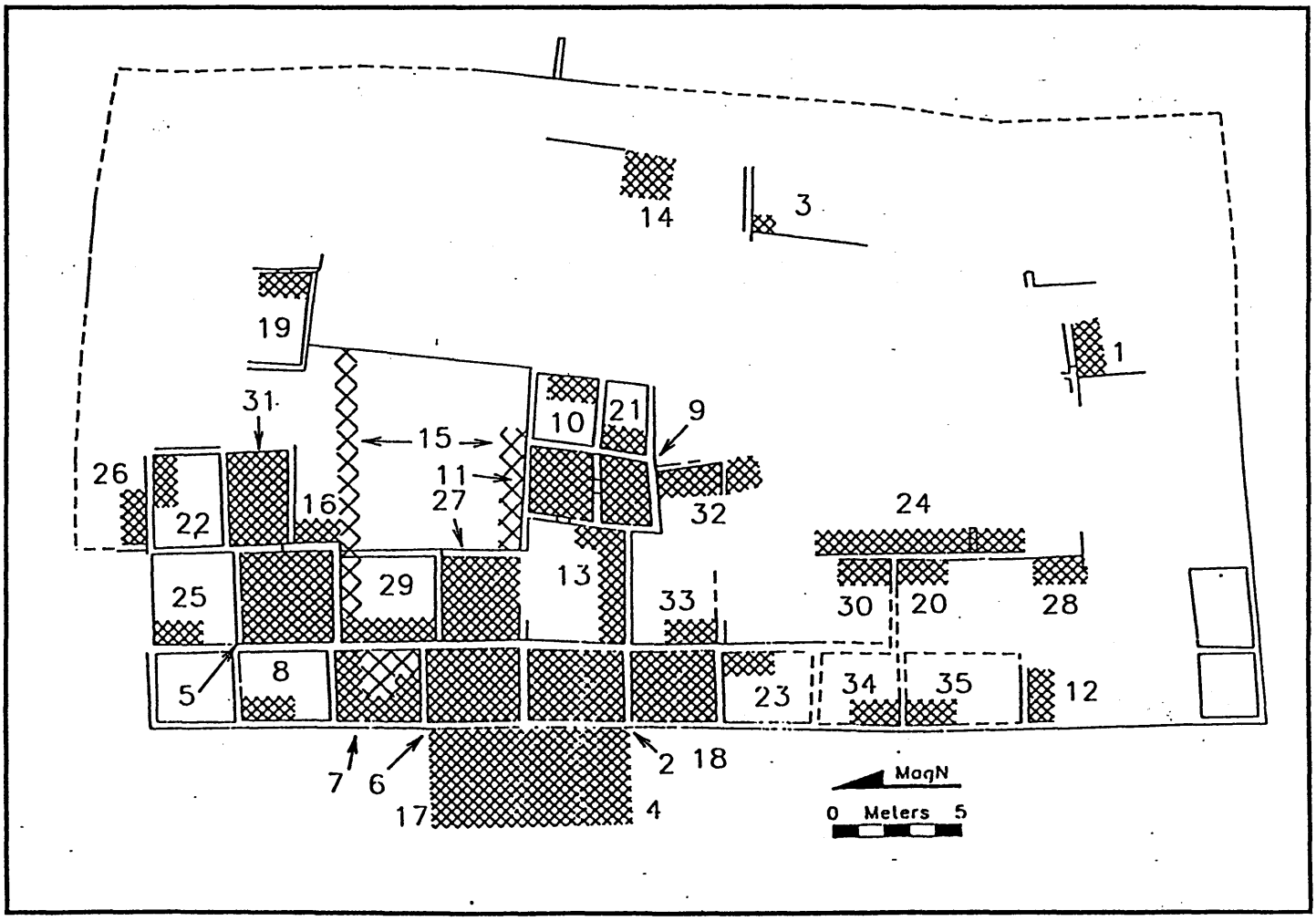

Figure 6. Plan of Rattlesnake Point Pueblo (AZ Q:11:118 ASM), hatching indicates excavated areas, numbers identify room or excavation unit.

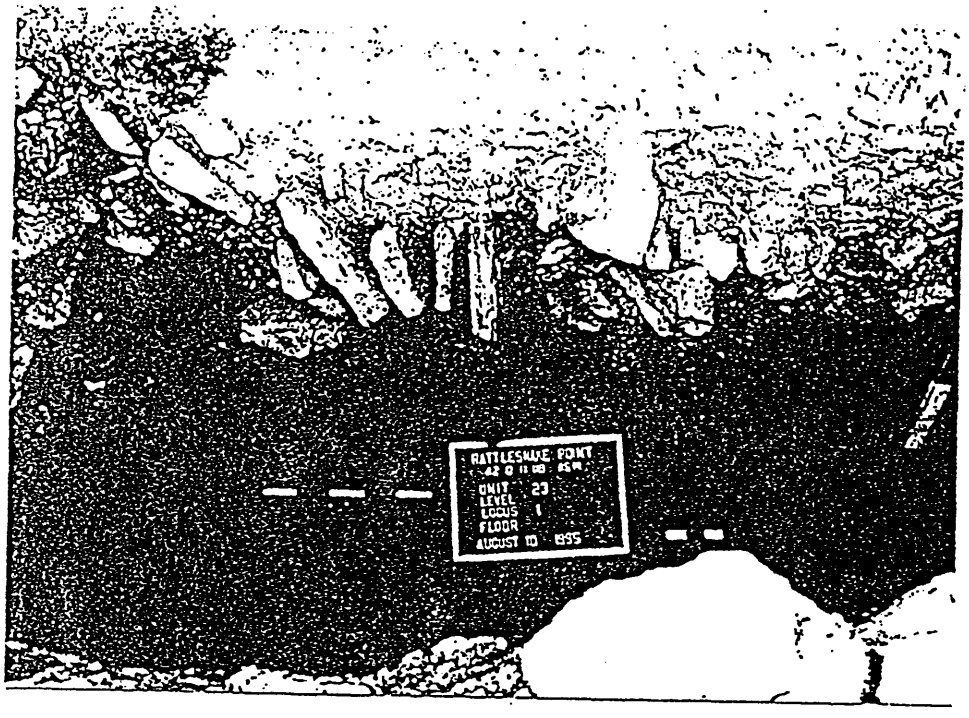

Photo 3. Typical stratigraphic profile for excavated rooms. Scale: rod on floor is 50 cm, arrow is 20 cm.

Due to variability in ground level upon which Rattlesnake Point Pueblo was constructed, floor level also varies. The floors of rooms located towards the eastern portion of the site (towards the slope) are slightly lower than those on the west edge of the site. As a result, some rooms with relatively lower floors experience inundation by the water table when the lake is at capacity, or are moistened by capillary action from a sub-floor water table. Arizona State University excavations concentrated along the western edge of the site to avoid this problem and to ensure that investigated rooms could remain open for interpretation without threat of flooding. However, in the rooms excavated in areas that experience water table problems, the integrity of deposits was relatively unaffected. Some organic remains, particularly charred roof beams, were weakened or disintegrating due to the repeated exposure to moisture from the lake. More durable artifact classes (e.g., ceramics, lithics) are relatively unaffected by the varying moisture in these contexts.

Since the reservoir was constructed, Lyman Lake has become a recreational attraction, and the point where the site rests represents a popular location. For several years, an unimproved dirt road extended along the point and crossed the site (visible in Photo 2). Access has since been closed off to vehicles and the site is fenced. Modern disturbance consisted of scattered litter and an occasional pile of sandstone slabs for fishing stools or fireplaces. The area along the river was occupied by numerous settlers in the late 1800s (Hoffman 1981), and a small structure that appears to be a historic home is located adjacent to the pueblo (Duff and Kintigh 1993). As was common practice, it appears that the stone for this structure was removed from the prehistoric pueblo. Disturbance to the deposits at Rattlesnake Point was noted in several excavated areas. In excavation units 8, 13, 22 and 33 (Figure 6), the deposits had been disturbed and historic artifacts were recovered. The historic materials were mixed in with prehistoric material and are consistent with a late 1800s temporal association. These may have been excavated by settlers for use as storage areas, or it may represent early looting. Bandelier (1892) commented on settlers using rooms in ruins in this region, but we do not know to which specific ruin he was referring. Excavations revealed limited recent pothunting at the site. A few locations appear to have been partially excavated (part of unit 1 and Room 31, Figure 6), but the site appears to have escaped the long-term and systematic vandalism that many other pueblos dating to this period have experienced. Its location within a state park and on a relatively visible point appear to have aided in its protection. Undoubtedly, visitors to the park have engaged in casual collection of ceramic and lithic artifacts from the site surface for several years.

As part of an interpretive effort associated with Lyman Lake State Park and Arizona State Parks, four of the completely excavated rooms at the site were professionally stabilized by crews from the National Park Service (Rooms 2, 6, 18 and 31, Figure 6). This consisted of adding a water-resistant bonding solution to excavated soils for mortar repointing and capping of the uppermost segments of exposed walls. The

purpose of stabilization efforts was to create a more erosion resistant exposed surface and a strengthened wall to better withstand the effects of repeated visitation and weather. Photo 4 shows Rooms 2 and 6 (with 7 in the background) during excavation. Photo 5 shows the stabilized walls of these same rooms from approximately the same perspective. Photo 6 shows Room 31, a small kiva, at the end of excavation, prior to stabilization. One wall in the kiva that had been damaged by pothunting (visible on the left edge of Photo 6) was repaired. The missing flagstone from the floor was not replaced. In all cases, the stabilization work was thoroughly documented and the mortar used was tinted so that it differs from the original material. A permanent record of the project (including before, during and after photo documentation on CD ROM and stills) is archived at Arizona State Parks, Development Section in Phoenix, Arizona.

A portion of the midden area west of the pueblo remains exposed to facilitate the visibility of the stabilized rooms (Areas 4 and 17, Figure 6). Additionally, a metal superstructure was constructed to cover one group of these stabilized rooms (partially visible in Photo 5). Since the walls contain so much mortar, direct exposure to rains was believed to represent the greatest structural risk, and it was decided that sheltering the area was the best solution to reduce the effect of weathering. To anchor the structure, six support pillars were required. This required excavating cultural deposits and the pouring of cement pillars to which the structure could be affixed. These support pillars are not visible on the surface of the site. There are plans to erect a similar roofed structure over the kiva (Room 31). This work has not been completed, but is in the planning stages and may be performed during fiscal 1997-1998. All areas not selected as part of the interpretive program were backfilled after excavation, returning the areas to their previous levels.

8. STATEMENT OF SIGNIFICANCE

The assessment of significance for Rattlesnake Point Pueblo (AZ Q:11:118 ASM) discussed here is based on Criterion "d" in 36 CFR Part 60.4 (National Register of Historic Places). Criterion "d" requires that a "Property has yielded, or is likely to yield, information important in prehistory or history." Rattlesnake Point Pueblo is deemed eligible because it has already yielded such information and has the potential to contribute additional important information. A brief consideration of important research domains that information from Rattlesnake Point Pueblo has already contributed to, or has the potential to contribute to, are presented below.

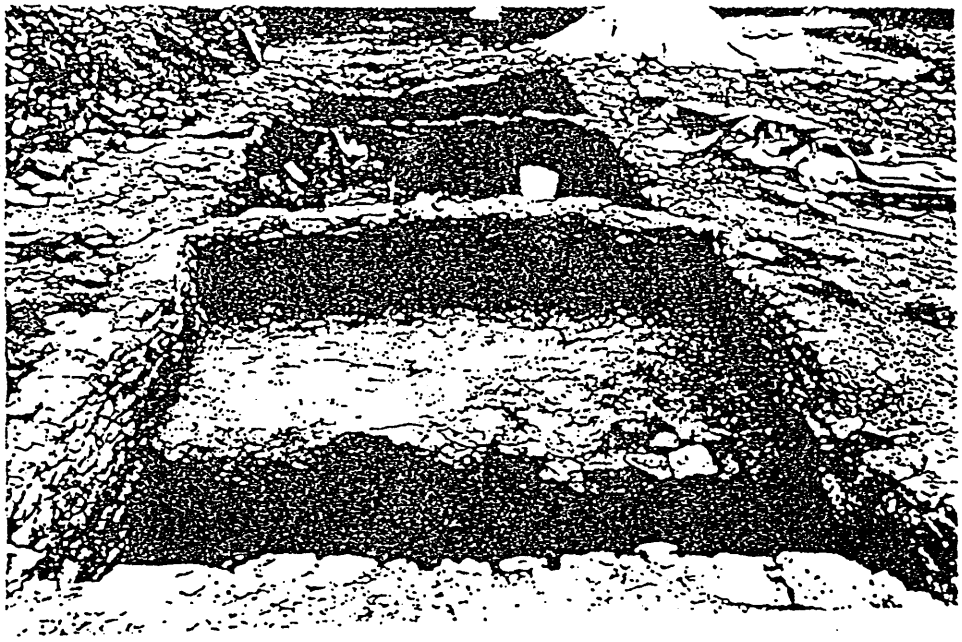

Photo 4. Rooms 2, 6 and 7 during excavation viewed from the south.

Photo 5. Rooms 2 and 6 after stabilization, viewed from the south.

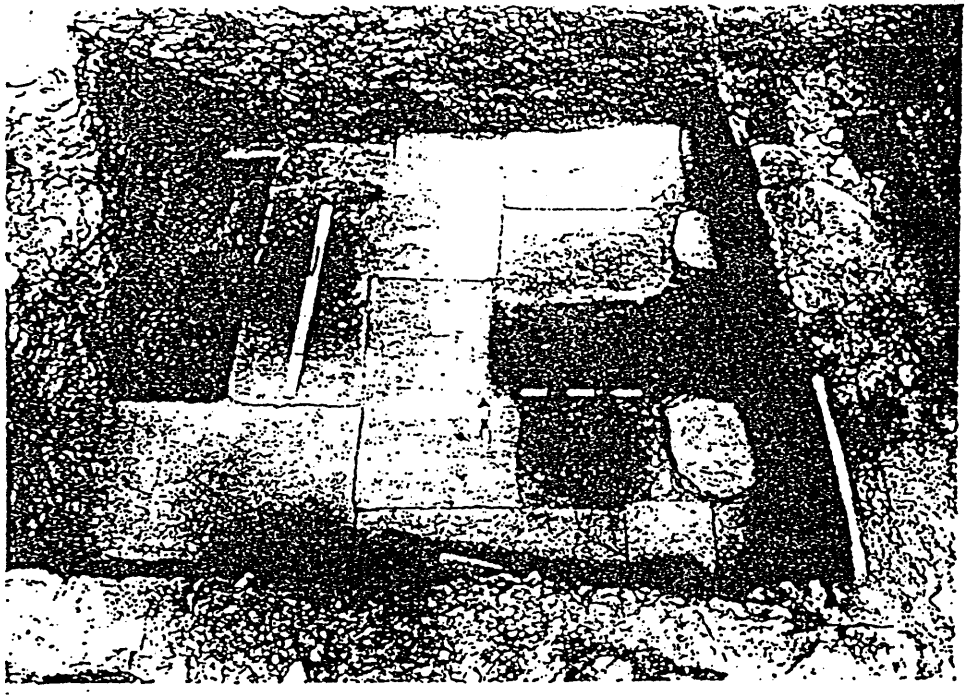

Photo 6. Kiva (Room 31) at end of excavation, view from south. Scale: Meter stick at left.

Environment and Chronology

The prehistoric environmental context of the Upper Little Colorado River area can be assessed through analysis of a number of perishable materials already recovered from excavations at Rattlesnake Point Pueblo. The burning of the pueblo at, or near abandonment, has resulted in excellent preservation of organic materials, and numerous classes of these have already been analyzed.

Macrobotanical samples (large plant remains) have produced substantial information about the locally available natural and cultivated resources. Analysis of soil samples processed by flotation, and macrobotanical samples collected during excavations has produced seeds from yucca pods, Rocky Mountain Bee-weed, amaranth, juniper berries, walnuts and several nonfood species. Corn kernels and cobs have been recovered from almost every excavated context within the site. One storage room, Room 34 (Figure 6), contained stacked, unshelled cobs. In addition to indicating the importance of corn to the occupants, these recovered cobs could be subjected to detailed morphological analyses to determine what strains or hybrids were present, and how diverse or uniform the utilized corn strains were. This information can be used to assess susceptibility to risk due to various adverse environmental conditions. Additionally, recovered corn is likely to have been harvested within one or two seasons prior to abandonment of the pueblo and radiometric dating techniques could be applied to these materials to help provide information about the timing of abandonment. Walnuts were recovered from several rooms although walnut trees are currently not present within the area. Walnut trees occur along the Little Colorado River near Springerville, suggesting that similar groves may have been present near Rattlesnake Point during occupation in the 1300s. A number of reed fragments indicate exploitation of riverine plants for matting.

Taken together, these resources indicate that the environment was reasonably similar to that of today, but they also provide information about the likely season of abandonment. Almost all of these seeds would have become available in the late summer or fall, and their presence suggests a late fall or early winter departure from the site.

Analysis of pollen samples from Rattlesnake Point Pueblo also supports the notion of an environment relatively similar to that of the present. However, comparison of modern and prehistoric samples may also be able to reveal changes that have occurred with the invasion of non-native grasses introduced by Europeans and changes associated with the lake environment and grazing practices. Cattail pollen recovered from a few rooms indicated that the riverine environment was quite lush, probably containing several marshy areas and probably supported numerous species not present in the immediate area today.

Comparison of faunal species diversity from the lower midden strata (nearer to initial occupation) and uppermost strata (closer to the time of abandonment) often reveals a decline in the frequency of desirable species (e.g., deer) through time, interpreted as an indication of local resource depletion. However, at Rattlesnake Point Pueblo there does not appear to have been depletion of the environment based on species representation. Additionally, analysis of faunal remains from Rattlesnake Point Pueblo revealed a number of species associated with the riverine environment (Clark 1997). Among these were beaver, waterbirds and native fish species that are now considered endangered or threatened.

Chronological and environmental information can also be reconstructed through the use of recovered wood fragments. To date, several hundred tree-ring samples recovered during excavations at Rattlesnake Point have been analyzed by the Laboratory of Tree-Ring Research at the University of Arizona. Several cutting and non-cutting dates indicate that initial construction of the pueblo probably occurred in 1328, although a few cutting dates in 1321 raise the possibility of a slightly earlier construction. A series of later cutting dates suggest additional construction or repairs were undertaken throughout the 1330s. One sample produced a cutting date of 1370, indicating that the site was occupied until at least this time. These dates have helped to solidify our dating of numerous decorated ceramic types. Outside of the areas occupied at initial Spanish contact in 1540, the latest cutting date for the Western Pueblo area is 1386 at the Show Low Ruin (Haury and Hargrave 1931). The 1370 date recovered from Rattlesnake Point is extremely significant in that it helps to bracket the latest occupations for sites outside of the Hopi and Zuni regions. The potential for additional late samples is high at Rattlesnake Point due to its excellent preservation and demonstrated occupation to at least 1370.

Tree-ring samples also provide important information about prehistoric climate and environment. Analysis of the variations in the width of individual tree-rings are used to help reconstruct seasonal rainfall. There has been very little archaeological work in the Upper Little Colorado area, and the submission of samples from Rattlesnake Point has substantially expanded the database. These samples provide the potential for expansion of the regional environmental database and can assist in creating a localized climatic model. Samples from fourteenth century are especially critical because, overall, fewer areas were occupied, hence, we have an even smaller spatial area from which to collect tree-ring samples.

The species of tree can be determined from tree-ring samples even if a date cannot be assigned. Information about the species used to roof Rattlesnake Point suggests that the residents traveled to the forested areas south of Springerville to obtain much of their wood. Douglas fir, Ponderosa pine, Pinyon pine, cottonwood and juniper were all used in roofs at Rattlesnake Point. Juniper, cottonwood and pinyon were all available in the vicinity or Rattlesnake Point. However, the Laboratory of Tree-ring Research

indicated that Douglas fir and Ponderosa pine were never part of the immediately local resources, and the residents would have had to travel to the forested higher elevations south of Springerville to obtain beams from these species.

A variety of organic materials recovered from Rattlesnake Point have already provided important information about the environment of the Upper Little Colorado region. Additional analysis of samples already collected can build upon these findings, and additional excavated materials could substantially increase our findings. Tree-ring dates from Rattlesnake Point have provided important temporal information regarding the initial occupation of the site, have helped bracket the timing of regional abandonment, and provide a database from which more refined models of local climatic variation can be constructed. Given the burning noted and the presence of quality samples from rooms that were only partially excavated, the presence of additional datable wood material at Rattlesnake Point Pueblo is almost certain.

Regional Political Organization and Interaction

Examination of "regional" scale processes in prehistory requires explicit consideration of what we mean by "regions." A region, usually defined by topography and the distribution of a number of material culture traits, is essentially the scale within which archaeologists believe interactions were concentrated and similar social processes influenced local populations. Sites are in fewer places later in prehistory which makes regions appear all the more obvious. Definitions of regions have varied with research interests and the times, but they are usually defined based on similarities and differences in distribution of portable artifacts, especially decorated ceramics. As noted above, a critical issue in the study of Pueblo IV is the question of the scale of social organization. In particular, were Pueblo IV sites linked together into larger political alliances? And if so, how large were these alliances? Conversely, others have posited the spread of widespread ideological developments that may account for many of the similarities we see in material culture without implying political unity or alliance. The exchange of material goods between pueblos within regions and between pueblos of different regions can assist in evaluating these issues.

The artifact and ceramic assemblages of excavated sites in the Upper Little Colorado River region indicate that they all received goods procured through long distance exchange (e.g., shell and minerals), though the mechanisms of this interaction have not received attention. However, a perplexing pattern characterizes the Upper Little Colorado River Pueblo IV sites. Villages contain variable percentages of stylistically nonlocal polychrome ceramics attributable to different regions. That is to say, Table Rock has a substantial proportion of Hopi Yellow Ware, while Rattlesnake Point, Baca, Hooper Ranch, and Raven have virtually none. Raven and Hooper Ranch contain high proportions of Fourmile and Pinedale

Polychromes, types thought to have been produced in the Silver Creek area (Carlson 1970; Graves 1982). Salado Polychrome proportions vary dramatically, appearing more dominant in later Pueblo IV assemblages at the northern Upper Little Colorado River sites. There is some evidence that Salado Polychromes were produced within the region (Martin and Rinaldo 1960).

Using excavated information from Rattlesnake Point Pueblo and from Table Rock, the two sites in the region for which we have the best information, we can evaluate this pattern further (Figure 7). Table Rock's assemblage consists of 20% Hopi Yellow ware, while we probably only have 15 to 20 Hopi Yellow ware sherds total from Rattlesnake Point (<1%). Even more unusual is that about half of the Table Rock assemblage consists of Salado Polychrome. This is nearly four times the amount of Salado Polychrome ceramics recovered from Rattlesnake Point. Conversely, more than half the Rattlesnake Point assemblage is Zuni Glaze ware, more than twice the amount of Zuni Glaze ware recovered from Table Rock. Rattlesnake Point also contains greater percentages of Fourmile Polychrome and Cibola White ware than Table Rock.

As pots are our most obvious measure of regional interaction, these assemblages suggest very different interaction strategies and strong dissimilarity between these two contemporaneous sites located only 20 kilometers apart. The high percentage of Hopi Yellow ware at Table Rock suggests strong social ties to Hopi, located about 120 km north. The residents of Rattlesnake Point apparently had almost no ties to Hopi based on the ceramic assemblage recovered to date. Rattlesnake Point residents appear to have had stronger linkages with the residents of the Silver Creek sites, producers of late White Mountain Red ware, and the Zuni area.

If decorations on pots mean as much as we think they do, that each site is dominated by a different ware suggests a very real distinction or division. Within these sites, there do not appear to be differential distributions of these various wares. Had there been a common political or economic organization uniting the sites in the Upper Little Colorado, the dramatic differences in the ceramic assemblages is not what we would expect to find. A few other examples from Late Pueblo IV suggest that different regional interactions by residents of sites in the same vicinity may not have been an isolated situation. In the Silver Creek area, Hopi Yellow ware seems to be more prevalent at Fourmile Ruin than at Showlow based on Haury's report (Haury and Hargrave 1931). One or both of these sites seems implicated in strong ties to the Grasshopper area below the rim (Triadan 1994, 1997). In the Middle Little Colorado, sites thought to be settled by migrants from the south (Chevelon and Homolovi I) maintain stronger social ties with southern sites as measured by Zuni Glaze ware and White Mountain Red ware ceramics (Adams 1996, personal communication; Gladwin 1957). The neighboring residents of Homolovi II were

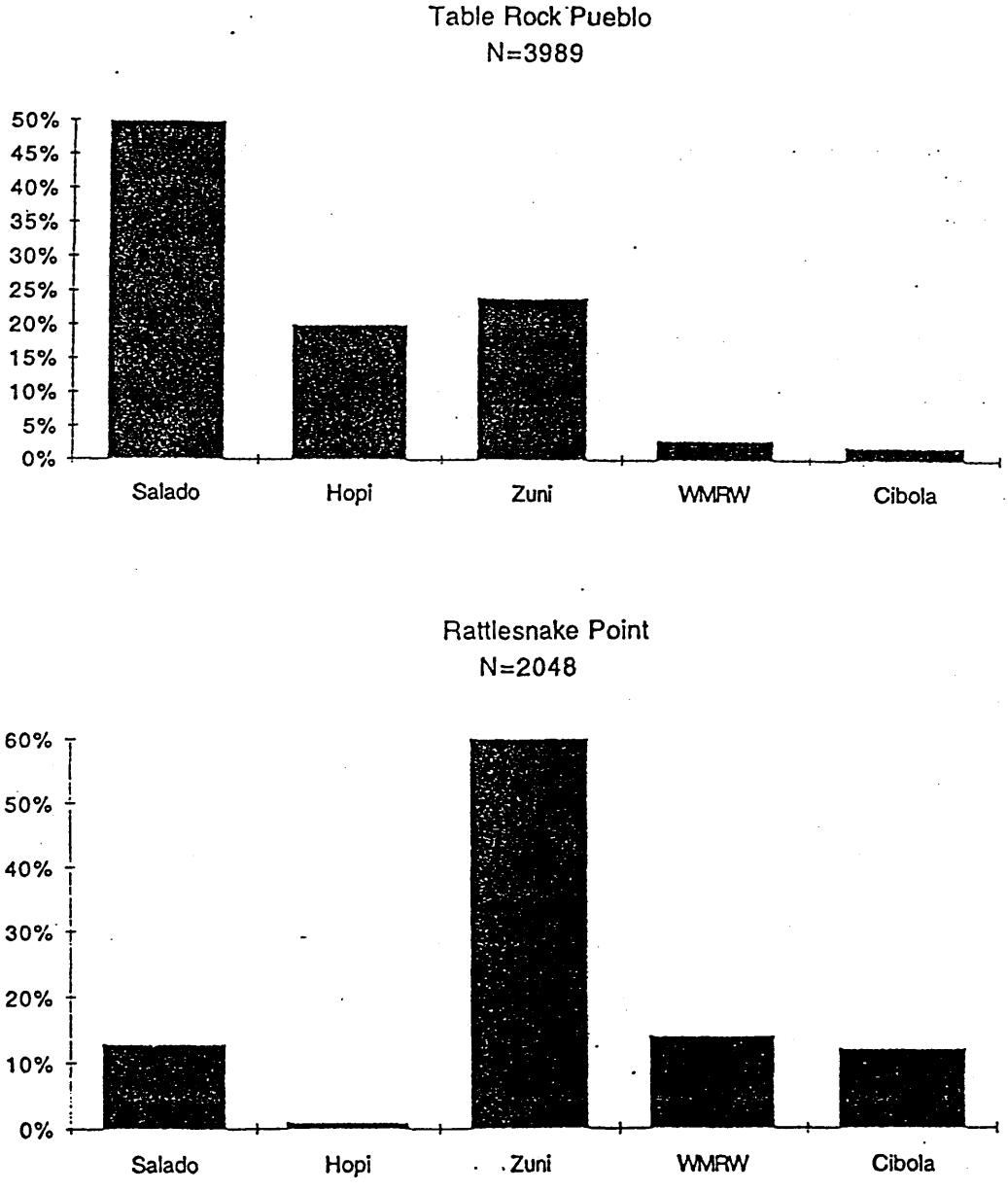

Figure 7. Decorated ceramic assemblage comparisons by ware from Table Rock and Rattlesnake Point.

apparently very focused towards the Hopi Mesas, with Salado Polychrome, Zuni Glaze ware and White Mountain Red wares representing less than 1% of the decorated assemblage (Hays 1991; Adams 1996).

An evaluation of decorated ceramics from sites in the Upper Little Colorado River suggests that the notion of Pueblo IV political entities organized along the scale of settlement clusters (after Upham 1982) is reasonably unlikely. The notion of a widespread ideological development characterized by the distribution of Salado Polychrome ceramics is also indirectly addressed by this analysis. Salado Polychrome ceramics are differentially distributed within the Upper Little Colorado region. This could indicate differential adoption of the ideas associated with the Southwestern Cult (Crown 1994). However, the presence of the icons associated with the Southwestern Cult or the Katsina Cult may be present on the ceramics in the these sites, but occur on different ceramic wares such as Zuni Glaze ware.

The resolution of these questions can be addressed by additional research using materials from sites in the Upper Little Colorado, and excavated collections from Rattlesnake Point Pueblo in particular. Compositional analysis of ceramics can assist in determinations of which vessels were locally produced and which were likely to have been imported from adjacent regions. This can help determine if the patterning apparent in the decorated ceramics is borne out, or if people within the Upper Little Colorado region simply produced local copies of ceramics decorated in the style and manner characteristic of adjacent regions.

The sites in the Upper Little Colorado are all relatively small, and it is likely that connections with other populations were necessary to ensure an adequate mating network. The possibility of a relatively integrated local social system remains, but the way in which it may be detected could differ from the expectations outlined by Upham's (1982) model of local political entities. The study of the circulation of plainware ceramics within the Upper Little Colorado may aid in the evaluation of interactions between the residents of adjacent sites. Plainware ceramics are more likely to have been exchanged among close social ties and were probably exchanged in more informal settings than were decorated vessels (Abbott 1994). This question can be addressed through a number of different ceramic analytical techniques including compositional or petrographic analysis and oxidation experiments. The circulation of plainware ceramics may be our best avenue for evaluating local organization, while decorated ceramics may be more appropriate for evaluating regional interactions.

Although the research directions outlined above have been directed towards the use of ceramics, a number of other material classes recovered from Rattlesnake Point Pueblo and other sites may also be able to assist in the resolution of these issues. Obsidian can be chemically analyzed and assigned to a point

source (Shackley 1988). Several pieces of obsidian from Rattlesnake Point Pueblo have been chemically analyzed, and it appears that the primary source was the Red Hill area of southwestern New Mexico, an area approximately 50 km south. It is not clear if this material was obtained through exchange or direct procurement, but additional study may be able to make such a determination. If this material was obtained through exchange, it would indicate interaction with southern groups that is not represented in the ceramic materials. Similarly, detailed study and analyses of non-local shell, turquoise and other minerals may help to define the spatial scale and direction of regional interactions. These materials may correspond to connections evident through ceramic analyses, or they may point to different networks.

Information about the frequencies of different decorated ceramics recovered from Rattlesnake Point Pueblo, when contrasted with other sites in the region, has already suggested the need to question some of the ideas archaeologists have about Pueblo IV social organization and the scale of political integration. The patterning observed at sites in the Upper Little Colorado River area appear to characterize a number of the other proposed settlement clusters present within the Western Pueblo area during Pueblo IV. Thus, the insights that can be gained through study of materials from Rattlesnake Point Pueblo have the potential to contribute to our knowledge of local political developments and may help to revise our understanding of regional processes during this critical period of Southwestern Prehistory.

Local and Regional Abandonment

Sometime about 1400, all of the pueblos in the Silver Creek, Upper Little Colorado, Anderson Mesa, Mogollon Rim and Middle Little Colorado regions were abandoned as permanent habitation localities (Duff 1997; Kintigh 1985, 1990). Archaeological evidence for occupation within the Western Pueblo area after 1400 is confined to the Hopi Mesas and Zuni area, locations where Pueblo groups were when the Spanish arrived in 1540. Although these regions were abandoned as areas of occupation, they continued to be used by Pueblo populations for hunting, the gathering of plant and ritually important resources, and ritual visitation (e.g., Hart and Ferguson 1985).

Archaeological studies of abandonment have associated a number of behavioral processes with strategies of mobility, migration, and landscape use. Greater appreciation for the diversity of abandonment behaviors has resulted in a developing literature suggesting regularities between specific abandonment strategies and assemblage correlates recovered by archaeologists. Stevenson (1982) dichotomized abandonment behavior into two basic dimensions: planned versus unplanned, and with or without intent to return. Using data from Yukon mining camps, he suggested that each state of these two dimensions had a predictable relationship to the condition and type of materials expected to remain at a site. Planned,

abandonments without anticipated return should result in little refuse left in its place of use (*de facto* refuse, Schiffer 1987; Stevenson 1982:242).

A number of additional studies have provided support for this basic framework, but have suggested that the distance of the move is another structuring factor (e.g., Schlanger and Wilshusen 1993) and influences the amount of *de facto* refuse expected. Planned abandonments are often associated with a relaxation of cleaning behavior during the period prior to departure (Kent 1993:63; Schiffer 1987:97), resulting in denser than expected floor assemblages. Similarly, long distance moves tend to result in disproportionate representation of larger and heavier objects, while personal gear is removed (Graham 1993). These studies suggest that recovery of *de facto* refuse can occur in the absence of catastrophic events.

Information on the scale of the migrating unit can inform on the organizational structure of the village. As the unit of migration and the decision making unit are often one and the same (Duff 1997; Neuberger 1977), if the pueblo was abandoned by all of the residents uniformly, this suggests suprahousehold decision making and movement. This might add credence to Pueblo accounts of the arrival of "clans" to protohistoric villages after migrating (Schlegel 1991). Conversely, departure by smaller entities would indicate that households were still the primary decision making entity within Pueblo IV villages, as seems to have been the case at Hopi during the Oraibi split (Cameron 1992).

Thus, studies of the process of abandonment at Rattlesnake Point Pueblo can provide information about the scale of social units within Pueblo IV villages and some indications about their destinations. Based on preliminary analysis of excavated materials from Rattlesnake Point Pueblo, it appears that the site was abandoned as a single event by most or all of the occupants, that the move was anticipated, expected to be long-distance, and there was no intent to return. The pueblo burned, and it is quite possible that this was part of a "closure" ritual associated with abandonment.

Except for historically disturbed rooms, all rooms excavated at Rattlesnake Point Pueblo appear to contain intact, *de facto* or "abandonment stage" assemblages (Schiffer 1987:89-98). No trash-filled rooms were encountered during excavations. Rooms contain assemblages indicative of differing activity sets, but most contain reconstructable vessels, ground stone, lithic debris, cores, lithic tools, plant macrofossils, and other artifacts. Artifacts of personal adornment were recovered, but are not abundant and most are broken. The density of materials recovered from room floors suggests that cleaning behavior was relaxed during the last days or weeks prior abandonment of the pueblo. Faunal remains, ash deposits and lithic debris were recovered from room floors in densities much greater than would be expected had they

planned to return to the site. It appears that hearths and food remains were piled in the corner of at least one room that appears to have utilized until abandonment (Room 2).

Only one part of the site appears to have differed in terms of occupational history. During the summer of 1995, an enigmatic feature that appears to have been a large kiva within the pueblo was excavated (Unit 24, Figure 6). This unit is surrounded by rooms that appear to have been in use until the end of the site's occupation, but was itself abandoned during occupation. It is capped by dense trash deposits that appear to result from domestic refuse accumulation over a reasonably long time (abundant ash lenses and about 1m depth). It also appears to have been partially filled intentionally when the feature was abandoned. The lower levels contain a single horizon of undifferentiated materials probably deposited as a single event. This deposit contains abundant gravels and artifacts indicating a lighter midden deposit was combined with sterile soil. At least part of the reason for the infilling was probably functional, as adjoining walls from were already slumping. It may have been filled to prevent collapse of walls still part of in-use rooms. At the contact between the midden strata and this lower deposit, several potentially reconstructable vessels appear to have been recovered. Additionally, bobcat forelimbs and a turkey burial are associated with this zone, as is a distinct, uniform ash lens that might have been the roof. In part, kiva treatment might be related to ritual closure of ceremonial features similar to those discussed for Pueblo IV kivas at the Homolovi sites (Adams 1996; Walker 1995; Walker et al. 1996).

Given the rich assemblages and somewhat greater than expected primary refuse (chiefly, lithic debitage and faunal bone), it is reasoned that abandonment at the site was a planned occurrence, and that cleaning behavior was relaxed during the final days or weeks of site occupation (Cameron 1993; Kent 1993; Schiffer 1987). Knowing that Plateau-wide abandonments at about A.D. 1400 resulted in occupations only at Hopi, Zuni and points east (cf. Upham 1982, 1984), the distance moved by the Rattlesnake Point residents is reasoned to have been long-distance. Evaluation of regional connections determined through ceramic studies might be used to suggest probable migration destinations. The relative abundance of Zuni Glaze ware ceramics at Rattlesnake Point Pueblo indicates the likelihood of strong social ties with populations in the Zuni area. Since migrating groups are frequently drawn to areas that they are familiar with and have social ties, migration to Zuni by the residents of Rattlesnake Point Pueblo appears likely. Perhaps, the different regional ties symbolized by the relatively high frequency of Hopi Yellow ware at Table Rock Pueblo, located about 10 miles north, might suggest that residents of this pueblo had a different destination upon abandonment.

The five Early Pueblo IV villages of the Upper Little Colorado River were apparently abandoned by A.D. 1325. Excavations at Casa Malpais, Hooper Ranch, and Raven suggest that these abandonments do not

mirror the Rattlesnake Point pattern. As only Hooper Ranch has been well-excavated and reported (Martin et al. 1961, 1962), these suggestions must be considered tentative. Early Pueblo IV villages do not appear to have been burned, nor do they contain abundant reconstructable vessels, though some are present. This suggests short distance, planned moves, probably to the locations of Late Pueblo IV villages. Early Pueblo IV sites may not have been abandoned uniformly, as there are indications that occupation in a few rooms at Hooper Ranch persisted into the mid-1300s. Late Pueblo IV sites differ in abandonment treatment, resembling the Rattlesnake Point pattern. Although Baca and Table Rock do not appear to have been burned upon abandonment, no trash filled rooms were encountered at either site, suggesting that these may have also been abandoned by large segments of the occupants acting in concert as inferred for Rattlesnake Point.

If correct, these data suggest that migrant groups from the Upper Little Colorado district arrived together at their destinations, potentially maintaining a unified identity upon arrival. These groups may have been (or become) clans, as Pueblo oral tradition would suggest. They may have contributed ceremonies to gain admission to their new homes (Schlegel 1991). That a similar set of abandonments appears to characterize the Upper Little Colorado district villages does not imply identical destinations. Preexisting relationships appear to have differed by village (Duff 1996), and these probably resulted in different destinations. The relatively small size of Upper Little Colorado villages may have permitted suprahousehold decision-making to function smoothly, facilitating community movement. It is not clear if this would be the case for other Late Pueblo IV communities in adjacent regions, which tended to be larger by a factor of two or three (Adams 1997; Mills 1997). However, all of these populations appear to have abandoned their villages at approximately the same time, traveled similar distances, left similar assemblages behind, and at least some practiced a similar burning ritual upon abandonment. These similar circumstances suggest that insights from Rattlesnake Point can provide important information about Late Pueblo IV village organization and can contribute to the study of abandonment behaviors in other Pueblo settings.

Summary:
A number of important research issues relating to Pueblo IV (AD 1275-1400) in the Western Pueblo area remain unresolved. Analyses of materials excavated from Rattlesnake Point Pueblo have already contributed substantial and important information towards the resolution of issues of prehistoric environment, chronology, Pueblo IV regional interaction and social organization, and the process of regional abandonment at the end of the Pueblo IV period. These issues have not been completely resolved, and additional analyses of existing materials from Rattlesnake Point Pueblo, or gathered from

future excavations of deposits still present, will continue to provide data relevant to site-specific, regional and macro-regional research questions.

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10. Geographical Data

Verbal Boundary Description: The site is located in the SW 1/4 of the SE 1/4 of the NW 1/4 and the SE 1/4 of the SW 1/4 of the NW 1/4 of Section 14, Township 11 North, Range 28 East, Apache County, Arizona.

Boundary Justification: Site boundaries were determined through surface observation, subsurface testing and observation of land alterations resulting from the creation of Lyman Lake. The boundary includes all of the masonry architecture structure (approximately 45 x 25 m) and an area of approximately 35 m beyond the structure in all directions. This non-structural area surrounding the pueblo encompasses archaeological deposits and activity areas associated with the occupation of the site.