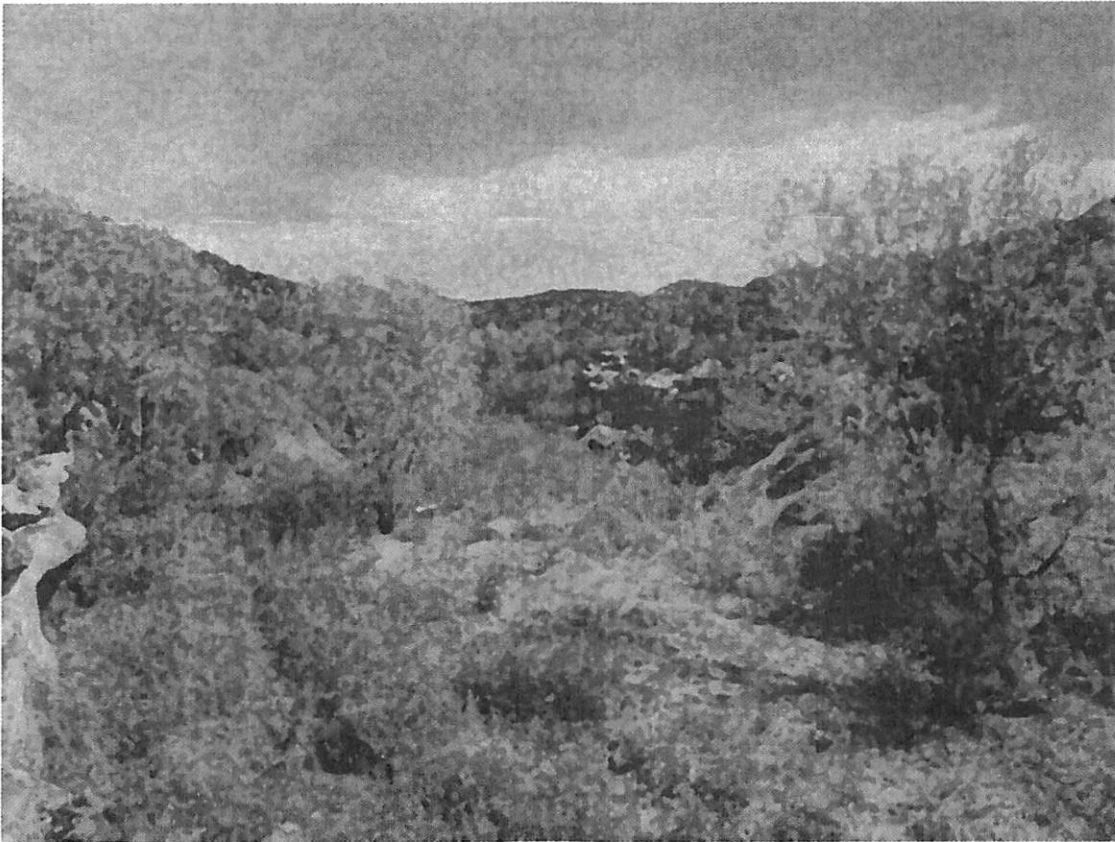


***GARDENERS AND GATEKEEPERS: A SECOND INVESTIGATION TO
A PUEBLO I COMMUNITY IN ALLEN CANYON, MANTI-LA SAL
NATIONAL FOREST, MONTICELLO/MOAB RANGER DISTRICT***



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INTRODUCTION

The Manti-La Sal National Forest Heritage program conducted a cultural resource investigation in Allen Canyon between May and November 2013. This investigation was conducted in compliance with Section 110 of the National Historic Preservation Act of 1966, as amended (PL-91-852). The Manti-La Sal National Forest Heritage program has partnered with the Canyonlands Natural History Association (CNHA) in order to investigate the Pueblo I period Ancestral Puebloan community in the southern portion of Allen Canyon on the Monticello Ranger District, Manti-La Sal National Forest (Figure 1).

RESEARCH DESIGN

Three principal research domains shall be investigated during the course of this research: (1) Chronology, (2) Settlement and Economy, and (3) Social Interaction. These research domains provide a fundamental context for evaluating the Pueblo I community in the South Allen Canyon area.

Chronology

Assessing when sites were occupied is a primary research question. For our purposes, establishing the chronological placement for sites provides a basis for addressing the other two research domains. With a temporal framework, studies that consider changes in settlement locations, differences in resource use, or varying alliances between groups are enabled.

A variety of methods can be used to date a site that may be classed into absolute and relative dating methods. Clearly, excavated data are the best and are most reliable because a number of absolute dating methods can be used, such as tree ring dating, obsidian hydration, radiocarbon, and archaeomagnetic methods; however, these methods are not applicable to studies based on surface survey. Of primary importance to this project are relative methods that can be used during survey and evaluation projects to place sites within a general, yet precise enough, temporal framework for further analyses.

Relative methods of dating that can be used include cross-dating artifacts, comparative differences in artifact attributes and feature morphology. Artifacts, such as projectile points and ceramic sherds, are temporally sensitive. These artifacts have been cross-dated with tree ring dates from excavated assemblages across the region and provide important information on when sites were occupied. Toward these ends, ceramic ware and type data, along with projectile point type data, documented at sites will provide a relative temporal framework for this study.

Settlement and Economy

Recognition of settlement and economic patterns is contingent on the identification of a number of lines of evidence including site type and location, feature types and frequency, artifact assemblages, and the spatial organization of sites types of a given temporal period.

Site Function or Use. Site function or site use is fundamental to any study of settlement patterns. Site use can be assessed by examining the range of artifact and feature types present, the density and diversity of materials present, the arrangement of features and artifacts within and between sites, and the placement of the site in the larger settlement pattern and temporal framework.

Variation between sites is related to differences in site use, the intensity with which these activities were conducted, and the number of people or groups participating. The diversity, spatial layout, variations, and density of artifacts and features present on a site are the basic building blocks used to address this research theme.

Economy and Subsistence. Detailed analysis of surface artifact assemblages, feature morphology and placement provide valuable data for examining issues of subsistence, resource procurement, and seasonality. Such studies are aided by analysis of ceramic and flaked-stone artifacts, sourcing non-local artifacts, and through the analysis of form, construction, and location of features.

Social Interaction

If we can use relative dating to place individual sites or site use episodes within a temporal framework, and identify the activities that occur at individual sites, we can explore the relation of the site to large communities that occupied the project area. Studies of social interaction form the basis to understanding how social groups organized and integrated themselves at local and regional levels.

Interaction between groups may be indicated by exchange of utilitarian or non-utilitarian items. Exchange of these utilitarian and non-utilitarian items may have provided means for securing needed resources for subsistence, as well as marriage, religious, and political relationships and networks.

Additionally, when a series of distinct sites occur near one another, they are descriptively noted as being clustered. Site clustering is not uncommon in the archaeological record and has important implications for boundary definition relative to interaction between groups. Site clustering is often used as a proxy measure for describing prehistoric communities. An important question, then, is whether these clusters represent individual communities or if spatially clustered sites are part of a larger community. It is critically important to characterize the nature of the site clusters in order to understand larger dimensions of prehistoric community and interaction.

ARCHAEOLOGICAL BACKGROUND

A BRIEF CULTURAL OVERVIEW

A brief culture history and overview of the cultural resources expected in or near the project area is presented below. This overview is limited to prehistoric resources and is intended to provide a contextual framework within which to interpret results and is not exhaustive.

Paleo-Indian Period

The Paleo-Indian period began in North America at or near the end of the Pleistocene, perhaps 18,000 to 20,000 years ago. Physical evidence from this period reflects a lifestyle based mainly on hunting large herds of herbivores (megafauna) and foraging for wild plants. This nomadic hunting and gathering lifeway occurred in Four Corners region from 9,000 B.C. to about 5,000 B.C. (Cassells 1983). In southeast Utah, physical remains of this period are sparse and consist

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primarily of isolated finds of projectile points, although Clovis point bases were recovered from the Lime Ridge site (Davis 1989; Davis and Brown 1986). The Lime Ridge site is located on a ridge top at the head of a canyon that drains eastward toward the confluence of Comb Wash and the San Juan River.

Archaic Period

Archaic period sites date between 6,000 and 1,500 B.C. The Archaic period is generally subdivided into Early, Middle, and Late Archaic phases. The beginning of the Archaic period corresponds to climatic changes that brought warmer, drier conditions. With the extinction of the megafauna by about 6,000 B.C., archaeologists have also noted a change in the prehistoric material culture and equate this date with the beginning of the Archaic period. Archaic period artifacts reflect a change in subsistence strategies, from a focus on "big game hunting" to a greater reliance on a broad spectrum of faunal and floral resources. Archaic populations responded to the discontinuous spatial and seasonal availability of resources through a serial foraging settlement system that employed a large degree of residential mobility. By the end of the Archaic period, maize is introduced.

There is growing evidence that semi-permanent houses were constructed for the winter months during the Archaic period. The atlatl replaced the hand-held thrusting spear during the Archaic and a variety of stemmed, corner-notched, and side-notched projectile points replaced the large points of the late Paleoindian Tradition. Additionally, basketry and fiber cordage become important items in the material culture inventory. Geib (1996) notes that open-twined and plain weave sandals, and close-coiled basketry are typical of the Archaic period.

Archaic sites have been documented in Southeast Utah that date to the Early, Middle, and Late Archaic phases (Fetterman and Honeycut 1988; McVickar 2000; Till and Davis 1997; Tipps 1988, 1995). These sites tend to occur in higher altitude settings where game and wild plant resources are abundant. The adoption of maize horticulture by the terminal Archaic resulted in increased aggregation into winter base camps and dispersal into small groups utilizing a foraging strategy during the spring, summer, and fall.

ANASAZI/ANCESTRAL PUEBLOAN PERIOD

Throughout North America, the Formative Period is recognized by a radical change in subsistence and settlement strategies. Farming domesticated crops such as corn, beans, and squash became more prevalent, in contrast to the previous form of obtaining plant food only by foraging wild resources. In southeast Utah, the Formative Tradition is referred to as Anasazi (or Ancestral Puebloan) and is divided into five periods of culture history from A.D. 1 to 1300: Basketmaker II, Basketmaker III, Pueblo I, Pueblo II, and Pueblo III (Eddy et al. 1984).

Basketmaker II Period

Basketmaker II sites date between A.D. 1 and 450. The early Basketmaker II period is recognized by an increasingly sedentary settlement system, the advent of more substantial dwellings, and an increasing reliance on corn and squash horticulture. Although foraging for

wild plants and hunting did not cease, there was a trend toward sedentism during the summer months to plant and harvest crops. Habitation sites are found in both open and cave locations.

Some researchers (Kidder and Guernsey 1919; Matson 1991) assert that the Basketmaker II period marks the intrusion of farmers known as the White Dog variant of the Basketmaker II culture. Excavations at cave sites in southeastern Utah (Blackburn and Williamson 1997; Geib 1996; Geib and Davidson 1994) suggest that White Dog Basketmaker material culture is distinctive relative to the preceding Archaic period. White Dog Basketmaker assemblages include weft-twined cord bags, weft-face plain-weave sandals, White Dog projectile points, S-shaped sticks, and close-coiled basketry. Projectile points are large and similar to the dart points of the Archaic period, but typically have wider, shallow notches.

Basketmaker II sites are well documented in Southeast Utah including one of the most important Basketmaker II sites in the region, Cave 7 (Hurst and Turner 1993), and numerous Basketmaker II sites have been identified on Cedar Mesa (Matson et al. 1988) and at Natural Bridges National Monument (McVickar 2000). These sites include habitations, campsites, and limited activity sites.

Basketmaker III Period

Basketmaker III sites date between A.D. 550 and 750. This period can be distinguished from the preceding period by the introduction of three new cultural traits: the use of the bow and arrow, the cultivation of beans, and the production of well-made gray and white ware pottery – all of which imply a more settled and sedentary way of life. In addition, an architectural change occurred from simple basin shaped depressions covered with mud and sticks to bi-lobed pithouses as much as one meter deep. A typical pithouse contained a shelf around the forward section of the main room, an antechamber, which was connected to the main chamber by a short passageway, and entry into the house by a ladder through the roof. The tool inventory, faunal and macrobotanical remains indicate continued exploitation of the natural domain, but farming had become the predominant subsistence activity. Throughout this period, population began to grow, and in Southeast Utah, numerous sites of this period can be found on both the mesa tops and in the valley bottoms. One of the largest Basketmaker III communities is found in Recapture Wash to the south of the project area (Janetski and Wintch 1985).

Pueblo I Period

The Pueblo I period dates between A.D. 750 and 900. The primary changes identified with this period occur in settlement systems, ceramics, and architecture. Architecturally there were many changes from the preceding period. Each Pueblo I habitation consisted of an arc of rooms with one or more pit structures located in the plaza area to the south. The shallow bi-lobed pit structure was replaced by a deep (2 m +/-) subrectangular structure with a true ventilator shaft complex.

Wilshusen (1999) indicates that distinct areas are found in the region where the population was aggregated into large villages of 75-400 rooms, but there are other areas where contemporary populations are settled on the landscape in dispersed hamlets of 3-20 rooms. Villages consist of

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multiple households with contiguous above ground living and storage rooms, often with an associated great kiva, rock art panels, and landscape features, such as shrines and plaza areas.

During the Basketmaker III period, gray ware jars, referred to as Chapin Gray, were smooth with fairly long necks, but around A.D. 750, the necks became shorter and wider and the coils around the neck were not smoothed away, resulting in a type referred to as Moccasin Gray, the prototype for the corrugated ware of the following period. Another addition to the pottery inventory was red ware, which was manufactured in southeastern Utah. Abajo Red-on-orange is the first red ware to appear in the Mesa Verde region around A.D. 725 followed by Bluff Black-on-red and Deadman's Black-on-red.

Regionally, Pueblo I sites are well documented. Pueblo I villages are found on Alkali Ridge (Brew 1946), and sizable late Pueblo I communities have been documented on Milk Ranch Point (Debloois and Green 1978) and along South Cottonwood Wash (Irwin 2000).

Pueblo II Period

The Pueblo II period dates between A.D. 900 and 1100. Around AD 890, a climatic change to cooler, drier conditions resulted in a shift in the settlement pattern (Peterson 1988). Populations dispersed over much wider areas to seek out those ecological niches where their form of subsistence could still be practiced resulting in a new settlement pattern characterized by small hamlets. While much of the population occupied these small, dispersed habitations, the Chacoan form of community organization emerges in some areas and expresses higher levels of community integration and interaction. In these communities, great houses, road segments, and great kivas form central elements to a community of households and farmsteads.

Architecturally, this period is generally characterized by full-height, coursed masonry structures, although early in the period surface rooms frequently have stone masonry lower walls with jacal construction forming the upper portion of the walls. Rectilinear room blocks replaced the curvilinear room blocks characteristic of the Pueblo I period. Most noteworthy is the evolution of the pit structure located in the plaza into a structure archaeologist's call a kiva in where the primary activities are thought to be of a ritual nature. Kivas are generally round with a surrounding bench, six masonry pilasters, a hearth, ventilator shaft, and sipapu (Cordell 1984). Subterranean or semi-subterranean mealing rooms are frequently associated with kiva facilities (Mobley-Tanaka 1997).

Pottery manufacture techniques improved during the Pueblo II period. The gray ware body of unfired vessels was slipped with a white firing clay so that the black designs appeared on a pearly white background after firing. The large culinary gray ware jars became fully corrugated, carefully pinched together, creating an indented pattern. Common ceramic types of the Pueblo II period include Cortez Black-on-white, Mancos Black-on-white, Mancos Corrugated, and Deadman's Black-on-red along with a variety of trade wares such as Tusayan Black-on-red, Sosi Black-on-white, Dogoshzi Black-on-white, and other ceramic types.

Late Pueblo II to early Pueblo III period sites are common in the region. Sizable Pueblo II communities have been documented on Cedar Mesa (Matson et al. 1988), at Natural Bridges National Monument (McVickar 2000), along South Cottonwood Wash (Mahoney 1998a and b), and elsewhere in southeastern Utah.

Pueblo III Period

The Pueblo III period dates between A.D. 1100 and 1300. By the beginning of the Pueblo III period masonry wall construction was a well-developed craft. Habitation sites often had more than one-story, particularly the larger villages and circular, multistoried towers. Trade networks had become well established and reached as far south as Mesoamerica and as far west as the Gulf of California. The Anasazi culture flourished probably reaching its peak around A.D. 1200. Then, drastic changes occurred. With the aggregation of an expanding population bearing considerable pressure against an overtaxed environment, and a succession of droughts, the Anasazi were left with little choice but to abandon the entire northern San Juan Region. Tree ring studies indicate that around AD 1160 a drought began and lasted for 30 years and then drought hit again between AD 1276 and 1299. The abandonment was a gradual process and the Mesa Verdeans probably moved to the south and east, eventually settling along the Rio Grande River of New Mexico and other areas, where pueblos exist today. By the close of the thirteenth century, the area encompassing the southwestern corner of Colorado appears to have been void of human occupation (Eddy et al. 1984).

During the Pueblo III period, an increase in site size is notable and sites are found in a variety of areas including canyon rims, in rockshelters and alcoves, on talus slopes, and in canyon bottoms (Cordell 1984). Multi-story habitations with kivas, wholly or partially enclosed by rooms or walls, become more frequent and Mesa Verde keyhole-shaped kivas tend to replace the circular forms found during the Pueblo II period. Site types and features include tri-wall structures, towers, large plaza-oriented pueblos, reservoirs, shrines, stone check dams, and field houses (Cordell 1984: 103). These developments signal increased population aggregation, a change in social organization, increased ceremonialism, and an intensification of the agricultural subsistence base.

Throughout the Four Corners region, pottery types had become quite distinct in design, layout, and form during the Pueblo III period. Pueblo III ceramic assemblages include Mesa Verde Corrugated, McElmo Black-on-white, and Mesa Verde Black-on-white along with tradewares such as Tusayan Black-on-red, Tusayan Polychrome, and Citadel Polychrome. Vessel forms diversify from the preceding period and include a variety of shapes in addition to bowls and jars, such as canteens, mugs, dippers, and ollas.

Numerous Pueblo III period sites have been identified in the region. Pueblo III sites have been documented in open air and alcove settings throughout southeast Utah including Cedar Mesa (Matson et al. 1988); Natural Bridges National Monument (McVickar 2000); South Cottonwood Wash (Mahoney 1998), and elsewhere. Pueblo III sites have been excavated near the project area in Verdure Canyon (Fetterman and Honeycutt 1990).

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THE GARDENERS AND GATEKEEPERS: ALLEN CANYON PROJECT

Early in the 1970s, a series of large surveys called the Elk Ridge Project (DeBloois 1975; DeBloois and Green 1978; Green 1971) were initiated on the Monticello Ranger District. These 1970s era surveys and data were largely geared toward predictive modeling to facilitate land management activities, and understanding the relationship between prehistoric occupations and the environment (DeBloois 1975; DeBloois and Green 1978; Green 1971). Through this early work on the District, it was recognized that a sizeable Ancestral Puebloan occupation was present and that a large portion of the occupation dated to the Pueblo I period.

Preliminary analyses suggested the Pueblo I period occupation was primarily small field house and small habitation sites that were seasonal in nature. In contrast, recent inventory work on the District has indicated that the Pueblo I occupation is more complex than previously recognized. In portions of the Monticello District, small villages with associated multiple and single-residence households have been identified that suggest a higher order of social complexity existed on the Forest during the Pueblo I period (e.g., Hurst et al. 2004; Irwin et al. 2000). With this in mind, the District Heritage program began a series of volunteer driven projects to re-enter and explore different areas of the Monticello District where larger concentrations of Ancestral Puebloan sites, particularly Pueblo I period sites, were identified by the early surveys. Through these volunteer efforts, information emerged that suggested a similar degree of complexity may exist within the Allen Canyon area; however, additional data are needed to investigate this portion of the greater Pueblo I community on the Forest.

Toward these ends, the Heritage program entered into a partnership with Canyonlands Natural History Association (CNHA) and, with assistance from their Discovery Pool Grant Program, launched a small study that began to investigate the Pueblo I period occupation in Allen Canyon (Irwin and Freels 2012). The principle aim of the study was to collect additional field data from a selection of important Pueblo I sites in the middle portion of Allen Canyon, and to further investigate the development and nature of the Pueblo I community in the Allen Canyon area.

This 2011 study focused on a group of eight sites that are clustered in the middle Allen Canyon area. These sites were initially documented in the early 1970s and site locations and scant information about the sites was collected. From this documentation, it was discerned that most of the sites dated to the Pueblo I period and two of the sites, Sites 718 and 719, were of moderate-to-large size. Site 718 was described as containing 17+ rooms and 719 was described as containing 7 or more rooms. An initial visit to these sites in 2009 indicated that both sites collectively had as many as 30+ rooms. The study focused on updating these two larger Pueblo I sites in the middle Allen Canyon area that appeared to be the center of the Pueblo I community and nearby contemporary sites in order to understand aspects of this early Ancestral Puebloan occupation.

Through these efforts, a number of important clues were derived about the nature of the Pueblo I community in Allen Canyon. Most importantly, the study found that the two larger sites thought to form the core of a tight knit community actually represented two distinct occupations of different time periods. Further, the surrounding sites also exhibited temporal variation, as well as functional differences with implications toward the formation and change of the Pueblo I

community. Key changes in architecture, material culture, and settlement patterns were noted that were related to changing demographic, economic, and social factors from the inception of the Pueblo I period to the climax of the period in this portion of the canyon. The study also provided an opportunity for the Heritage program to update and mine our Geographic Information System (GIS) and site databases to elicit patterns that suggested multiple community “centers” might be present within different portions of Allen Canyon during the Pueblo I period (Figure 2).

THE 2013 GARDENERS AND GATEKEEPERS: ALLEN CANYON II STUDY

As with any small-scale study, more questions were generated from the initial study of the Pueblo I community in Allen Canyon. As a next step, the Heritage program began to initiate field visits to begin the process of verifying some of the patterns and insights gained during the initial study. Immediately it became evident that more work was needed in the canyon to understand the Pueblo I community in Allen Canyon. A number of challenges immediately presented themselves. The 1970s data is scant and, simply, inaccurate. The terrain and access is difficult. We no longer document sites and material culture in the same manner as was common in the early 1970s. What we did learn from our verification forays into different areas in Allen Canyon was that large, important Pueblo I sites were found in the southernmost portion of the canyon that held key insights into Pueblo I community formation, change, and organization. Other areas, such as the north and the east were not as complex as initially thought, but were also of significance, particularly to understanding the earliest manifestations of the community.

So, with these insights in hand, we approached CNHA to partner with us once again to further investigate the Pueblo I community of Allen Canyon. Our target was drawn on the southernmost sites in the canyon where the largest site in the canyon is located. Our aim was simple, to update the information available for this and other community sites in the southern portion of the canyon to the modern standards and provide further insights into how the Pueblo I community formed and changed in this portion of the canyon.

The Sample

Two larger sites were identified and relocated in the southern area: 1341 and 1358; the former site had another site (Site 1343) immediately adjacent that was likely related to the occupation as a whole. These sites were thought to be the core of a community that appeared to date to the latter half of the Pueblo I period. Other sites dating to the Basketmaker III-Pueblo I period, according to our site files, were present in the area and included limited activity sites, small and medium size habitation sites (Table 1; Figure 2). Given the difficult terrain and access into the canyon, the three larger sites were prioritized for updating while the other sites in the community were targeted for field visits and investigation via extant records and museum collections.

Upon further review of the records for these sites, four sites were dropped from the study (Sites 1294, 1375, 2647, and 2650). Site 1294 is a small artifact scatter consisting of 112 ceramic and 2 lithic artifacts. The site is actually part of Site 1343 and not distinguishable on the ground. The remaining sites, Site 1375, 2647, and 2650, are alcove type sites with architecture that date to the Pueblo II and Pueblo III periods.

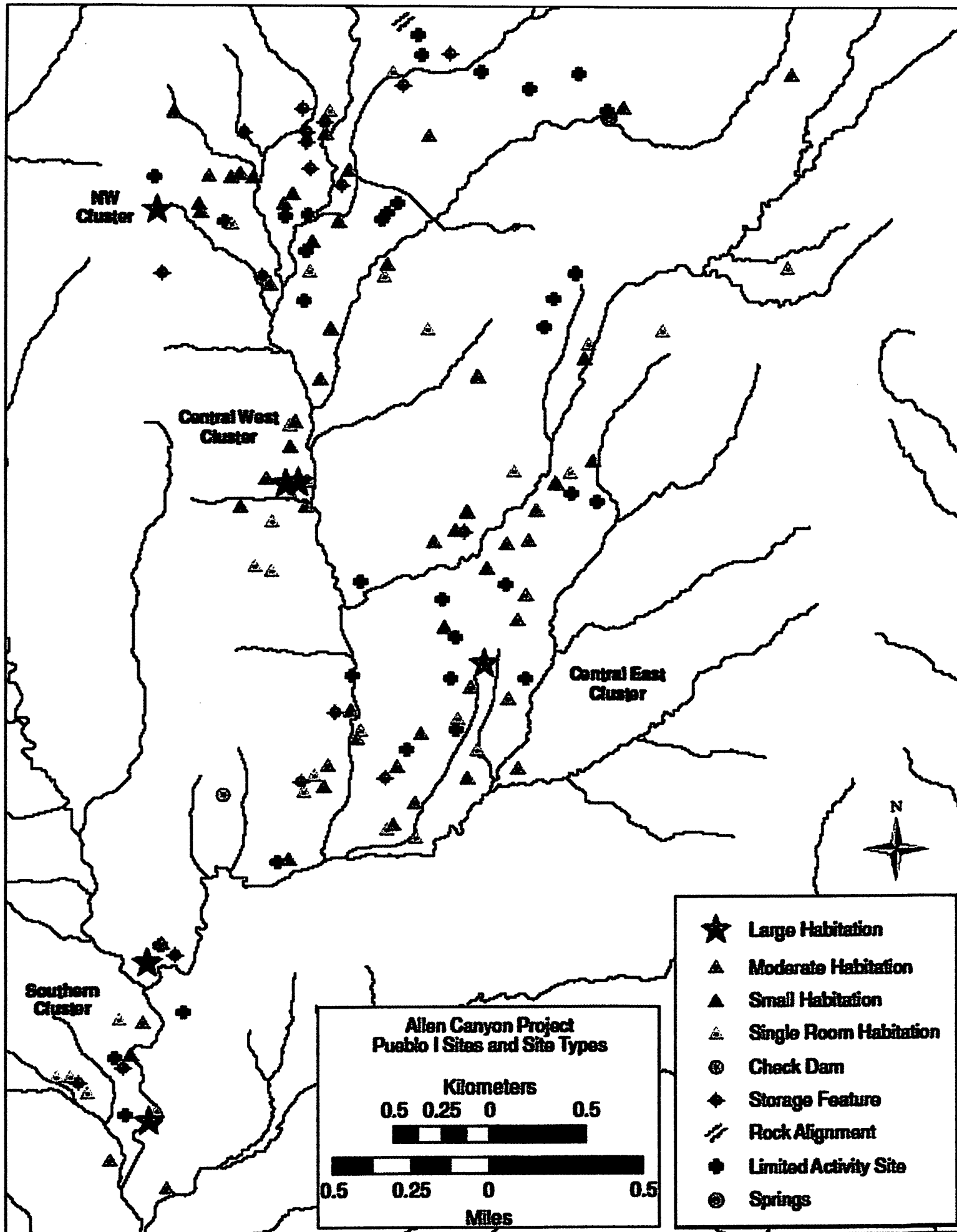


Figure 2. Results of the 2011 Gardeners and Gatekeepers Pueblo I GIS study in Allen Canyon.

GARDENERS AND GATEKEEPERS

Table 1. Sites updated or included in the Southern Allen Canyon Area Study.

State Number	Agency Number	Site Type	Temporal Affiliation
Three Updated Sites			
42SA2334	1341	Village	Basketmaker III-Pueblo III
42SA2336	1343	Medium Habitation	Basketmaker III-Pueblo I
42SA2351	1358	Large Habitation	Basketmaker III-Pueblo I
Community Sites			
42SA2337	1344	Storage Feature w/scatter	Pueblo I
42SA2340	1347	Observation Tower	General Puebloan
42SA2341	1348	Medium Habitation	Basketmaker III
42SA2343	1350	Storage Feature	Pueblo I–Pueblo II
42SA2345	1352	Limited Activity	Pueblo I
42SA2346	1353	Limited Activity	Pueblo I-Pueblo II
42SA2347	1354	Storage Feature w/scatter	Basketmaker III-Pueblo I
42SA2348	1355	Single Room Habitation	Pueblo I-Pueblo II
42SA2350	1357	Single Room Habitation	Basketmaker III-Pueblo I
42SA2353	1360	Medium Habitation	Basketmaker III-Pueblo II
42SA2354	1361	Storage Feature w/scatter	Pueblo I
42SA2356	1363	Field House	Basketmaker III-Pueblo I
42SA2360	1367	Limited Activity	Basketmaker III-Pueblo I
42SA2364	1371	Single Room Habitation	Basketmaker III-Pueblo I
42SA2366	1373	Field House	Basketmaker III-Pueblo II
42SA17402	2639	Small Habitation	Basketmaker III-Pueblo I
42SA17438	2649	Small Habitation	Basketmaker III-Pueblo I

*The temporal affiliation in the table is what the original site forms state prior to this study.

RESULTS

Three important sites were updated during the Allen Canyon Project (Table 2). These sites are described below.

Table 2. Sites rerecorded during the Allen Canyon Project.

State Number	Agency Number	Site Type	Temporal Affiliation
42SA2334	1341	Habitation	Pueblo I
42SA2336	1343	Habitation	Pueblo II
42SA2351	1358	Habitation	Pueblo I

State Number: 42SA2334
Agency Number: ML-1341
Site Type: Architecture
Site Size: 52 m x 47 m

Site 42SA2334 (ML-1341) consists of a small village complex with multiple-room structures, pit structures, middens, slab-lined cists, terraces, and check dams that dates to the Pueblo I period (Figure 3). The site lies on a bench along the west side of Allen Canyon north of the confluence with a tributary canyon. Sediments consist of reddish-brown sandy clay loam. On-site vegetation includes sagebrush, piñon pine, juniper, serviceberry, cliffrose, prickly pear cactus, pin cushion cactus, jumping cholla, and various grasses and flowers. Below the site, a tall

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sagebrush covered alluvial flat and stream with dense riparian vegetation including willow, narrow leaf cottonwood, and river birch is found. The site is located at 6,180 feet above sea level.

The site was originally recorded by Brigham Young University in 1972. The original site record describes the site as a habitation with slab room, possible kiva, terraces, two cists, and several check dams that dates to the Basketmaker III-Pueblo I and Pueblo III period. The site was revisited and updated during 1985 by Weber State College as part of the Archaeological Vandalism Assessment. During this visit, the site was described as one large above-ground roomblock, a possible kiva, a series of smaller rectangular and circular rock alignments, and at least three vertical sandstone cists. Midden areas and a large earthen terrace supported partially by sandstone slabs and rocks were also noted. The recorders crudely mapped the site and attempted to associate portions of the site with the original BYU field notes and feature numbers were retroactively assigned by the Manti-La Sal Forest Archaeologist in Price. Unfortunately, they also included the neighboring site, Site 1343. Ceramic information provided no useful information indicating the presence of white ware, red ware, and gray ware sherds. The site was named Allen Canyon Village somewhere along the way.

In September 2013, archaeologists with the Manti-La Sal Heritage Program and volunteers with the Wilderness Volunteers organization updated the site. Current observations indicate the site consists of a small village complex with multiple-room structures, pit structures, middens, slab-lined cists, terraces, and check dams that dates to the Pueblo I period. It should be noted that the original feature number system has been discarded during this documentation. This was done in an attempt to clarify aspects of the site. The original feature system numbered various individual rooms that are part of the same roomblock, but not all of the rooms and feature numbers included the separate site 1343 as well. Admittedly, Site 1341 is extremely complex and difficult to describe and the feature system applied does not necessarily capture all the complexity evident at the site.

Features: This village consists of a complex array of surface structures, pit structures, terrace walls, slab-lined cists, and other features that are integrally linked over an approximate 100 x 25 m area. The main roomblock area consists of two primary blocks of rooms, designated Feature 1 and Feature 2, situated at east and west ends of the complex respectively. These two portions of the main structural area are connected by a linear section of architectural rubble that suggests a series of collapsed double rooms. This area is covered with thick duff and numerous trees making it difficult to distinguish additional information. The complex of surface rooms occupies a level area that is created by modifying the natural landform in the western area and the construction of massive terrace walls toward the eastern end. The structural area is bounded on the north side by a terrace wall (Feature 23) that likely protected the site from runoff; portions of the wall are missing or buried. The southern portion of the structural complex is fronted by a series of pit structures that were identified on the basis of surface evidence and auger testing. Much of this southern area is covered by dark gray ashy sediments and numerous artifacts that extend beyond and downslope forming a substantial midden.

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Feature 1 designates a large, multiple-room masonry and jacal roomblock that covers a 23 by 20 m. The large terrace wall, Feature 23, bounds the northern extent of Feature 1 and the southern end is bounded by the massive terrace wall, Feature 3. The eastern extent of the feature was apparently defined by a substantial compound wall as well (Figure 4). The east wall largely collapsed, though footprint alignment fairly well-defined. The interior of this eastern wall has segment of four large upright slabs, extending 60 cm above modern ground surface, that transitions into a single stone alignment visible at surface. The eastern wall extends southward and merges with the massive terrace wall (Feature 3) that bounds the south. The west side of the roomblock (F. 1) is delineated by a 14 m long north-south wall. Four courses remain standing above the modern ground surface in portions south and abutting the west side of large boulder to north and articulates with the north terrace wall (Feature 23). At the northern extent of this western wall adjacent to the large boulder, 8-10 courses of collapsed masonry evident suggesting at least 1 m height. Tabular sandstone, 20-40 cm size and 10-20 cm thick, was used to construct the western wall of Feature 1.

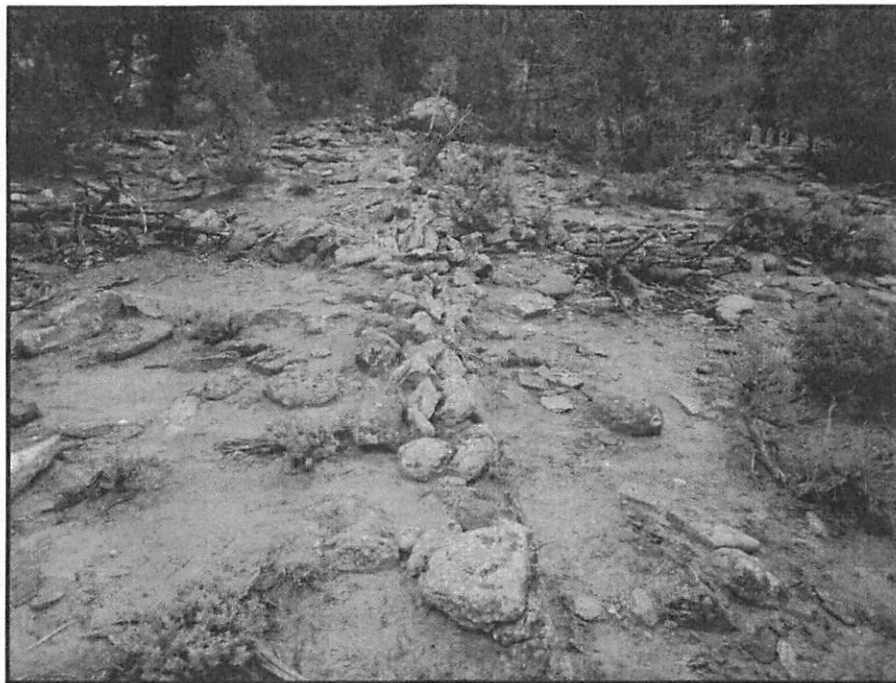


Figure 4. Eastern compound wall at Site 1341 with coursing evident.

The number of rooms contained within Feature 1 is difficult to ascertain. Collapsed rubble, vegetation, and duff obscures much of the area making room counts difficult. Although well-defined wall alignments visible in places and linear arrangements of collapsed walls are also discernable outlining what appear to be large rooms; it is very likely that each of these large "room units" contain interior surface rooms and the number of rooms contained in Feature 1 is much higher than can be discerned from the surface. To facilitate description, these larger "room units" defined by wall alignments, and likely containing multiple surface rooms, have been described below as Room A-G.

Feature 1, Room A is a well-defined rubble mound is found in the northeast corner of the F. 1. It measures roughly 6 x 5 m and rises approximately 50 cm above modern ground surface. No wall alignments are notable within the rubble mound and it is unclear if the roughly circular shape of the mound is the result of structural collapse or an indication of the original shape of the structure. Unshaped sandstone blocks roughly 20-40 cm and 10-20 cm thickness were used in the construction.

Adjacent to and extending west of the rubble mound are Feature 1, Rooms B and C. These two "rooms" are generally larger than "normal-size" rooms and indicated by single stone width masonry and upright slab wall alignments. Feature 1, Rooms B and C measure roughly 6 x 8 m and 8 x 6 m respectively. These rooms are filled with a reddish-brown loam with some architectural rubble potentially indicating internal walls or divisions, but duff and trees growing within prevent accurate observations. Unshaped sandstone blocks roughly 20-40 cm and 10-20 cm thickness were used in the wall construction.

Feature 1, Room D is a 4 x 6 m room abutting the south side of Room C. Coursed masonry wall alignments bound the north, west, and south sides of the room and a vague alignment delimits the east extent of the room. Unshaped sandstone blocks roughly 20-40 cm and 10-20 cm thickness were used in the wall construction. Seven courses remain standing in the south wall, three courses are evident in the north, and the west wall is partially collapsed with four courses still evident in places.

Feature 1, Room E is located in the southeast portion of Feature 1. It is rectangular and measures roughly 5 x 3 m and is outlined by linear alignments of rubble from collapsed walls along the north, west, and south and a single stone-width wall alignment along the east side; the room abuts a large boulder at the southeast corner. Unshaped sandstone blocks roughly 20-40 cm and 10-20 cm thickness were used in the wall construction.

Feature 1, Room F abuts the east wall of Room E. It is rectangular and measures roughly 5 x 4 m. It is outlined by linear alignments of rubble from collapsed walls along the north, west, and south sides and a single stone width wall alignment delineates the east side of the room. Collapsed rubble along the exterior east wall alignment suggests a fairly massive construction that extends northward to Room A, the rubble mound. The amount of rubble evident along the eastern wall alignment suggests a relatively massive compound wall bounded this room and the entire eastern side of the Feature 1 roomblock.

A linear wall alignment extends eastward from the east side of Room F and the massive wall that apparently enclosed Feature 1. Appended to the south of this east-west wall is Feature 1, Room G. Room G is roughly D-shaped and measures 3.5 x 2.5 m. Single stone width masonry, at least 3 courses high, bounds this room with the exception of a 2 m section of upright slabs along the east side of the room. The upright slabs are roughly 20-40 cm size and extend 15-20 cm above the modern ground surface. Collapsed architectural rubble fills the space between the eastern compound wall of Feature 1 and Room G.

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Feature 2 is situated in the western portion of the site, and consists of several rooms and rock wall alignments. Distinguishing characteristics of the feature include a standing wall of dry stacked sandstone rocks (Room D), a D-shaped room (Room A), and various slab-lined rooms, and rock alignments. Rooms that could be identified were lettered to be discussed more thoroughly below. The eastern edge of the feature (area between F1 and F2) is heavily impacted by water erosion. A small rill is forming and passing over the wall alignments below Room H.

Feature 2, Room A is the southernmost room in the feature, and measures 3.2 m x 2.6 m. This room is a D-shaped and slab-lined, and consists of 11 upright, unshaped, sandstone slabs holding in feature fill. Twenty-six stones are visible, and the soil is slightly sunken in the center of the room.

Feature 2, Room B is located directly northwest of Room A, and measures 3 m x 2 m. The room has three visible walls remaining intact. Three large, standing, sandstone slabs remain in place in the western wall. The slabs measure between 60-70 cm high (from ground level) and approximately 40 cm wide (Figure 5). The southern and eastern walls have buried sandstone slabs exposed at the ground surface. The room has a looter's pit in the center that measures 60 cm in diameter. Rubble lies west of the wall.

Feature 2, Room C lies directly northwest of Room B, and measures 2 m x 1 m. The slab-lined room is rectangular with six upright, sandstone slabs still in place in the western and southern walls. Three of the stones in the southern wall are very tall (60-70 cm high), and are exposed like in room B. The northern wall is constructed from large, mostly buried sandstone rocks. Rubble lies to the southwest of the wall.



Figure 5. Feature 2 Rooms C and B.

Feature 2, Room D is clearly defined with all four wall remnants identifiable (Figure 6). The feature measures 2.8 m x 25 m. The northern wall has four to ten courses (west to east) of dry stacked masonry that measure between 60 cm and 1.2 m high (west to east). A small nook/shelf was built into the eastern side of the back wall, and measures 40 cm x 30 cm. The western wall is about five courses high (40 cm), and is collapsing inward toward the center of the room. The southern wall has collapsed outward to the south. The southern wall has two upright slabs forming a doorway in the center of the wall. These stones measure approximately 50 cm x 20 cm. The eastern wall is visible, and extends south from the room 6.5 m. Two courses are visible in the wall when standing on the eastern side. The eastern wall measures approximately 1 m high.

Feature 2 Room E is next to Room D. The room has collapsed walls visible on the west, north and east boundaries. The walls were dry stacked with no shaping evident on rocks. The room measures 2.5 m x 1.5 m.



Figure 6. Feature 2 Room D with stacked back wall.

Feature 2, Room F is directly north of Room C, and shares Room C's northern wall. The room is irregularly shaped, but measures approximately 3.5 m x 2.7 m. The northern wall that is not very clear, but it curves to the northeast and measures approximately 3.5 m long. Rubble lies along the northern portion of the wall.

Feature 2, Room G is a slab-lined room that has six visible, buried upright sandstone slabs that form a nice corner in southeastern corner. Eroding downslope toward west and western and northern wall are missing. 1.5 m x 2.5 m

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Partially buried sandstone rocks are forming a series of wall alignments that are visible to the north and east of Rooms D and G. A wall located above room G is a dry stacked masonry wall approximately 60 cm (two courses) high and 2.3 m long. There is heavy water erosion flowing south across these alignments that appear to be moving the features south/south east towards pit structure directly below.

Feature 3 is the main south terrace wall that measures roughly 30 m long and remains between 80 cm and 1 m high. It is constructed of dry laid masonry and incorporates natural boulders. The sandstone blocks and slabs used in construction range between 60 cm and 1 m by 20-40 cm thickness with five or more courses remaining.

Feature 4 is a pit structure depression. It is an evident depressed area, approximately 60 cm deep, that has a well-developed drainage cutting through it toward the south. It is estimated to measure roughly 6 m diameter. Auger testing confirmed the presence of a pit structure approximately 90 cm deep.

Feature 5 is a pit structure. From the surface, the pit structure is somewhat depressed (10 cm), but more evident by a cleared area bounded by large boulders and rubble. A large, 2 m long by 40 cm thick upright boulder bounds the west side of the pit structure; it appears to have been intentionally placed in an upright position. The pit structure is estimated to be 4.5 m diameter. Auger testing confirmed the presence of a pit structure approximately 1.3 m deep.

Feature 6 is a rubble scatter that likely indicates a collapsed single-room structure. It is ovoid and measures roughly 5 x 7.5 m and 10-20 cm high. The north side is bounded by a 3 m section of coursed masonry that is 50 cm high. Unshaped sandstone blocks, measuring 40 x 40 cm and 10-15 cm thick, were used; the wall appears to be dry laid. Heavy duff covers the area preventing further observations.

Feature 7 is a rubble mound that likely indicates a collapsed single-room structure. It is roughly square and measures approximately 4 x 4 m and 20 cm high. The east side is bounded by a large boulder and a couple of stones forming a short alignment. The rubble appears roughly 20 cm size and is unshaped. The feature is covered by heavy duff and is poorly defined.

Feature 8 is a pit structure. It is located in an area between the Features 6 and 7 and the long north-south wall bounding Feature 1. A low, 2 course high wall bounds the north side of the feature. The pit structure is estimated to have a 4.5 m diameter. Auger testing confirmed the presence of a pit structure approximately 85 cm deep.

Feature 9 is a pit structure. It is to a large extent enclosed within walls to the north, east, and west that are part of the Feature 1 complex. To the south of the pit structure is a massive retaining wall that remains 70 cm high and is constructed of large, 60-80 cm by 10-20 cm, unshaped sandstone blocks; the retaining wall is approximately 7.5 m long. Feature 9 is estimated to be roughly 4-5 m diameter. Although a depression is not well-defined on the surface, auger tests in the area determined a 75 cm deep pit structure is present.

Feature 10 is a probable pit structure located in the south central portion of Feature 1. The only indication of the structure on the surface is a somewhat depressed area, more an erosional area than not, and dark gray cultural sediments eroding from beneath a large juniper tree that dominates the area above the feature. The pit structure is estimated to be roughly 4 m diameter. Auger testing confirms the presence of a buried structure that is approximately 70 cm deep.

Feature 11 is a slab-lined cist located northwest of Feature 10 in the south central area of Feature 1. It is defined by a series of upright sandstone slabs, approximately 20 cm size, arranged in a circular shape approximately 1 m in diameter. The slabs extend 3-5 cm above the modern ground surface.

Feature 12 is a slab-lined cist located west of Feature 10 in the south central area of Feature 1. It is defined by a series of upright sandstone slabs, approximately 20 cm size, arranged in a circular shape approximately 1 m in diameter. The slabs extend 3-5 cm above the modern ground surface.

Feature 13 is a circular structure located approximately 25 m to the east of Feature 1. It is visible on the surface and defined by a series of large, unshaped rocks and boulders that are 50-80 cm in size and about 35 cm thick. The structure is constructed in a relatively level area created by constructed terraces (Feature 14). Auger testing indicates the structure is approximately 70 cm deep. Four rock alignments (Features 15, 16, 17, 19) and a cist (Feature 18) are closely associated with the structure.

Feature 14 designates a series of constructed terraces associated with Feature 13, a circular structure. Feature 14A is a large, 12 m long terrace that runs roughly east-west along the contour of the slope about 5 m south of Feature 13. It is approximately 80 cm to 1 m tall with 8 courses remaining in place. Large, unshaped rock, measuring 30-90 cm by 20 cm thick, was dry laid to form the terrace wall. Feature 14B aligns roughly north-south and perpendicular to 14A. It is approximately 7 m long. This wall is approximately 40 cm tall and constructed of large rock, 40-60 cm size. Features 14C and 14D form an L-shaped terrace behind which Feature 13 is constructed. Feature 14C runs east-west and is 5 m long. It is built with coursed rock 60-80 cm to 1 m size. Feature 14D is a north-south alignment measuring 6 m long. Unshaped sandstone in the 40-60 cm size range was used in its construction.

Feature 15 is a rock alignment (check dam) measuring about 4 m long. It runs roughly east-west along the contour of the slope below the large, terrace wall (Feature 14A). It is constructed of sandstone rock and slabs 20-40 cm size and has 2-4 courses remaining.

Feature 16 is a rock alignment (check dam) measuring about 5 m long. It runs roughly east-west along the contour of the slope north and east of the large, terrace wall (Feature 14A). It is constructed of sandstone rock and slabs 20-40 cm size and has 1-2 courses remaining.

Feature 17 is a rock alignment (check dam) measuring about 3.5 m long. It runs roughly east-west along the contour of the slope directly east of the large, terrace wall (Feature 14A). It is

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constructed of sandstone rock and slabs 20-40 cm size and has 2 courses remaining; it also incorporates naturally occurring rock.

Feature 18 is a slab-lined cist associated with Feature 13, the circular structure. The cist is ovoid and measures 110 by 65 cm. It is constructed of 8-10 upright sandstone slabs of varying sizes that extend 10-25 cm above the modern ground surface. Several of the slabs are fire-reddened.

Feature 19 is a rock alignment located north of the cist (Feature 18) and circular structure (Feature 13). It consists of three large sandstone block positioned upright between two larger boulders. The feature rises 30 cm high and the top is level with the sediments captured on the upslope side. The sandstone blocks are 60-90 cm size and 15 cm thick.

Feature 20 is a pit structure. It is located in a pronounced depressed area about 8 m east of Feature 1 where an erosional channel is forming. The pit structure is estimated to measure 3.5 m diameter. An array of upright slabs and rock to the south may be related to the subterranean structure. Auger testing confirms the presence of a buried structure that is approximately 70 cm deep.

Feature 21 designates two rock alignments with substantial rubble in between that extends from the northeast corner of Feature 1 to a series of large boulders approximately 14 m to the northeast. The northern alignment articulates with Feature 1 Room A, the large rubble mound in the northeast corner of Feature 1. It extends approximately 15 m along the contour of the slope to the northeast. Portions of the wall are buried or eroded away. It is constructed of large, 40 cm size, unshaped sandstone blocks. The southern wall alignment is approximately 14 m long and extends to massive boulders at its east termination. Two courses of unshaped sandstone blocks, approximately 40 cm size, are evident in portions of the alignment. The area between these parallel walls is filled with abundant rubble suggesting this may represent a wing of rooms extending east from the main room block, Feature 1.

Feature 22 represents a series of 4 parallel, rubble alignments adjacent and to the west of the main north-south wall bounding the west side of Feature 1. These east-west oriented rubble alignments extend from the north boundary of Feature 8 to the north. These alignments vary 3-5 m length and include unshaped sandstone 20-50 cm size. The function of these parallel alignments is unknown. They may represent erosion control features or, possibly small rooms.

Feature 23 is a 50 m long, substantial rock alignment that bounds the north side of the complex. This wall reaches 50 cm height in places. There are sections where the wall is barely visible because of structural collapse and burying by sediments coming from the ridge slope some 5-10 m to the north. This wall is constructed of large, unshaped sandstone slabs and blocks, measuring 20 by 40 cm, and are dry laid in double width fashion. In places, five courses remain evident above the modern ground surface.

Feature 24 is a substantial midden that covers the southernmost portion of the structural complex and down the slope to the south. It is estimated to measure 87 x 16 m and has an undetermined depth. The midden is indicated by dark, ashy gray sediments with pieces of burned sandstone,

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ceramic, flaked stone, ground stone, and bone debris. Artifact densities are estimated at 100-200 artifacts per square meter.

Feature 25 is a slab-lined cist measuring 50 cm in diameter. Three upright slabs are intact on the northern side of the feature.

Cultural Materials: Site ML-1341 contains over 1000 artifacts including lithic tools, ceramics, and flaked lithic debitage. The tools included 20 hammerstones, 30 cores, 8 bifaces, 2 knives, 1 drill, 11 utilized flakes, 5 projectile points, 1 chopper, 7 scrapers, 28 manos, 12 metates, 13 pecking stones, 6 polishing stones, 1 denticulate, and 1 axe. Ceramics from 12 sample units from the midden included 832 plain gray ware sherds, 116 Moccasin Gray, 115 Mancos Gray, 5 indeterminate corrugated gray ware, 4 Mancos Corrugated, 4 Chapin Black-on-white, 40 White Mesa Black-on-white, 1 Piedra Black-on-white, 12 Mancos Black-on-white, 26 early white ware, 40 late white ware, 55 unslipped red ware, 18 Abajo Red-on-orange, and 142 Bluff Black-on-red.

Site Condition: The site is in good condition. Cow grazing in the canyon continues to shift artifacts and rock alignments. Water erosion evidenced through rills and small drainages cutting through the site are moving artifacts and cutting along rock features. Rusty metal and aluminum cans clearly indicate some visitation and it appears that at some point over the last half dozen years looters have shovel probed portions of the midden as evidenced by small disturbed areas with unearthed artifacts and loosened backdirt. One older looter's pit is evident within Feature 2, Room B.

National Register of Historic Places Eligibility: Site 42SA2334 (ML-1341) consists of a large multiple-room structure with associated features and an artifact scatter. The presence of the Abajo stemmed projectile points, Chapin Gray, Piedra black-on-white, White Mesa black-on-white, Bluff Black-on-red, Mancos Gray, and Moccasin Gray sherds suggest a late Pueblo I occupation of the site. The large multiple-room surface complex, pit structures, other features, and well-developed midden suggest that the site was utilized over a long period of time as a permanent habitation site. Further investigation and research at the site is likely to yield additional important information to the Pueblo I chronology, settlement, and economy of the Allen Canyon region of the Manti-La Sal National Forest. Therefore, the Forest Service determines that site 42SA2334 (ML-1341) is eligible for listing on the National Register of Historic Places under Criterion D.

State Number: 42SA2336

Agency Number: ML-1343

Site Type: Architecture

Site Size: 74 m x 44 m

Site 42SA2336 (ML-1343) is an architectural Pueblo I habitation site consisting of two multiple roomblock structures, a pit structure, three jacal structures, terrace walls, cists, and check dams (Figure 7). The site is situated on a culturally altered flat bench against the eastern wall of Allen Canyon above the confluence of a tributary canyon and Allen Canyon. The soil is brown, silty sand with sandstone rocks and boulders. The soil is formed through colluvial and aeolian

processes. The site sits in a piñon pine and juniper woodland with an understory of low sagebrush. The center of the site is free of tall trees and shrubs, but biological soil, grasses, and jumping cholla are present. The site is 6,200 ft. (1,890 m) above sea level.

The site was originally recorded during the Elk Ridge Project by Brigham Young University (BYU) archeologists in 1972. The site contained eleven features at this time and hundreds of artifacts. Artifacts were collected and are located at the Edge of the Cedars State Park (EOC). The site was also documented in 1985 by Weber State College as part of the Archaeological Vandalism Assessment. However, these archaeologists recorded Site 1343 as part of Site 1341. Ceramic information on the site form is of no use as it is limited to identifying generic ceramic types (e.g. gray ware, red ware, white ware), and includes ceramics from both of the sites.

In September 2013, archaeological with the Manti-La Sal Heritage Program and volunteers with the Wilderness Volunteers organization updated the site record. The site visit identified hundreds of artifacts and 19 features that include pit structures, rock alignments that previously formed multiple roomblock structures, check dams, and cists. The site is constructed around a flat bench with a terrace wall built at the edge of the bench on the southern side of the site. The center of the site is flat and devoid of any large vegetation.

The artifact assemblage contains hundreds of artifacts including stone tools, ceramic sherds, and flaked lithic debitage. Artifact analysis was conducted on stone tools located in the field, and ceramic artifacts that were collected during the 1972 and 2013 site recordings. The artifact collection strategy performed by BYU was not identified in the original documentation, and the artifacts are located at the EOC. The artifacts collected during 2013 were garnered from five different sample units randomly placed across the site that measure 1 meter in diameter. The artifacts date the site to the Basketmaker III through the Pueblo II periods. However, the site appears to have been more heavily occupied during the Pueblo I period as indicated by the artifacts located at the site. Two Abajo Stemmed projectile points and a high number of ceramic sherds such as White Mesa Black-on-white, Bluff Black-on-red, and Moccasin gray ware all strongly date the site to the Pueblo I period.

Features: Features 1 and 2, cists, and Feature 3, a check dam, lie directly west of the site's center. A small mound, Feature 14, is visible on the western side of this flat area. Feature 14 represents a jacal pit structure with burned rock evident. The center of the site also contains two cists, Features 13 and 15. Auger testing in the east-central portion of the site revealed the presence of a pit structure that is included in Feature 13, as the cist appears to lie in the center of the feature. Structural elements, such as ill-defined roomblocks distinguished by rock alignments, are located in the north, east, and southeast areas of the site. Features 4-7 are rooms and rock alignments in the northern section of the site that were likely connected to each other forming a multiple roomblock. A plaza is situated between the northern rock alignments and the northern edge of the pit structures (Features 13 and 14). The northeastern portion of the site contains a check dam; a square, jacal, single-room structure; and a cist (Features 8-10). South of these features lies another cist (Feature 12), and a series of wall alignments that likely composed the rooms of a jacal structure, Feature 11. A piece of burned adobe was located on a wall of this feature, and supports the presence of the jacal structure. Lastly, check dams and a midden (Features 16-18)

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lie in the southern portion of the site. The midden begins at the edge of the bench and continues south, downslope to the small bench below. Due to the deterioration of the structures it is unclear how many rooms are present at the site; however, features in the center of the site remain intact, and the site likely contains intact buried cultural deposits.

Feature 1 is a collapsed cist approximately 80 cm in diameter with four upright, partially buried slabs visible. Two additional slabs are collapsing outward from the center of the feature.

Feature 2 is also a cist measuring 1.2 m x 80 cm. The feature consists of four partially buried stones. The feature fill and stones are slowly moving south down slope to the midden and canyon bottom. There is a large rock situated behind the southern edge of the feature that is helping to stabilize the southern portion of the cist. Two slabs have fallen outward from the center of the cist giving the feature an oblong shape.

Feature 3 is a check dam with one natural boulder and one intentionally positioned boulder placed side-by-side. Together the two boulders measure 80 cm x 50 cm. The feature was likely constructed to prevent soil erosion at the site as a rill is currently running over the feature from the north to the south.

Feature 4 consists of a room and associated wall alignments. The feature lies at the base of the northern slope that leads to the canyon rim. The room lies in the southern portion of the feature, and measures 3.5 m x 3.1 m. The northern (back) wall and western wall remain in place. Two large, upright slabs compose the eastern portion of the wall. A rock alignment extends west 1.8 m from the center of the west wall to the small rill that is flowing over the check dam, Feature 2. Behind the northern wall is a large boulder with a line of rocks on top (1.8 m). Rubble is eroding south down the slope.

Feature 5 consists of three rock alignments. The back (north) wall has one large upright slab still in place, with collapsed wall remnants extending west of the boulder. The wall measures 4.3 m in length. Two additional wall alignments were noted, a western wall (2.2 m), and southern wall (3.5 m) exist and together all three create a semi-circle. No coursing visible. Again, the feature is at the base of the slope and is eroding south down the slope toward the plaza. Much rubble is present around the walls suggesting full coursed masonry.

Feature 6 consists of one rock alignment that measures 1.5 m. Two large, buried, upright slabs compose the wall that runs north-south, and likely connects to Feature 7 (collapsed wall).

Feature 7 is north up the slope behind Feature 5, and consists of a collapsed wall that measures 8 m long. The wall was constructed of dry laid sandstone masonry prior to collapsing. Rubble coming down in front is falling to the south. The feature was a major wall for a set of rooms that likely attached to Feature 5.

Feature 8 is a check dam located behind a very large boulder. The dam measures 2.6 m long and is composed of four small boulders.

Feature 9 is a square jacal structure situated against the canyon wall at a northeast-southwest angle. The feature measures 2.0 m wide by 1.6 m. Three walls are visible. Two upright, sandstone slabs compose the eastern wall. Three slabs form the back wall, and one long, lone slab indicates the western wall. No stones are visible in the southern portion of the feature. Soil eroding down slope from the canyon wall is likely obscuring the wall. Feature fill is intact in this feature.

Feature 10 is a cist that lies in the northeastern most portion of the site beneath a juniper tree. The feature measures 70 cm in diameter. Four upright slabs are visible and form a semi-circle. The northern portion of the feature is obscured by duff from the juniper above. The feature appears to be moving south/southeast with the slope.

Feature 11 consists of an L-shaped wall alignment that formerly composed a jacal structure. Feature 11 in the eastern portion of the site, and has surface indications of a single line of sandstone blocks and slabs. The longest wall lies in the center of the feature, and measures 5 m long east to west. The wall is dry stacked with 4-5 courses visible (1 m high) on eastern edge. The wall continues west and is about 2-3 courses on the western side (50 cm tall). Three ephemeral walls lie south of the stacked wall with much rubble eroding south down the slope over and toward these walls. The rubble measures 6 m x 3.5 m. A piece of burned adobe found in association exhibits impressions of plant material. The impressions are those of a small cross member (< 5 cm) and parallel, 1 cm wide grooves such as willow or reeds pressed into mud. This patterning likely indicates a wattle-and-daub construction technique

A one course high wall runs approximately 2.8 m north from the western edge of the center wall of Feature 11. From the northern edge of this wall, an additional wall continues west approximately 2 m. This wall is evident at ground level only. Another ephemeral rock alignment continues north 3 m from the eastern edge of the center wall and then curves west for another 4 meters. The final wall alignment in Feature 7 lies in the northwest area of the feature, and forms a northwest corner of a room. The corner is constructed from three upright slabs. Rubble debris is scattered around the northern portion of the feature as well, and the feature is generally eroding southward down slope toward the midden.

Feature 12 is a cist composed of four upright slabs that are collapsing outward from the center of the feature. The cist measures 73 cm in diameter.

Feature 13 is a pit structure identified by several auger probes. The probes identifying the boundary of the pit structure are between 75 cm and 1.5 m deep. Ashy soil with chunks of adobe, modeled soil, and charcoal, as well as several gray ware sherds were commonly associated with the probes. The area measures about 8 m x 4.7 m. The feature is situated in the east-central portion of the site in the built-up, flattened terrace. A small amount of jumping cholla and grasses are growing here. There is a cist in the center of the pit structure. The cist consists of four upright slabs that measure 70 cm in diameter. The size of the pit structure may suggest the presence of two superimposed pit structures from two different time periods, and the cist may represent the latest use of the site.

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Feature 14 is a jacal structure (Figure 8). The area measures approximately 4 m in diameter. The feature lies directly west of the pit structure in the flat, terraced area of the site. The feature is slightly mounded with rocks and burnt rocks scattered across the mound. Auger testing of the feature indicated structural fill consisting of a mottled dark gray and reddish-brown clay loam with abundant charcoal flecks; small pieces of burned adobe, or daub, were noted in the matrix. Also, biological soils are growing on the mound surface, along with a few small bunches of grass and jumping cholla. The soil and visible rubble are still well intact with little impacted from erosion. A rill is forming along the west edge of the feature.

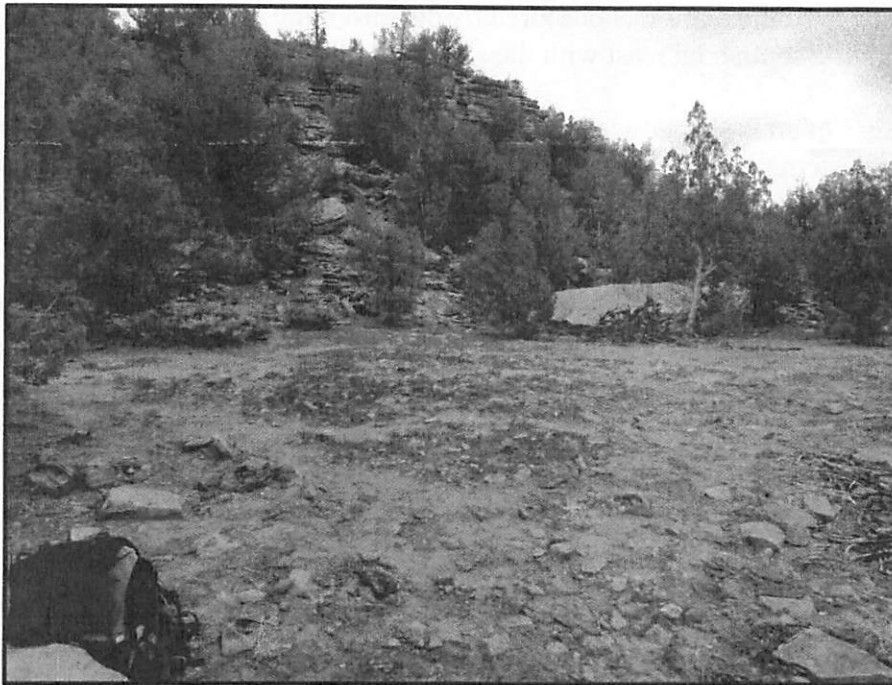


Figure 8. Overview of Site 1343 with feature 14 in foreground.

Feature 15 is a cist west of Feature 14. The semi-circular cist consists of three intact upright sandstone slabs measuring 60 cm across. The three stones make-up the western portion of the feature. A couple sandstone slabs have shifted south/southeast from the feature due to a small drainage that is crossing between the feature and Feature 14.

Feature 16 is a small check dam composed of multiple large sandstone rocks and boulders. The feature measures 1.5 m long and 87 cm tall. The feature lies on the slope directly below the main portion of the site to the west of the midden (Feature 18).

Feature 17 is a check dam composed of multiple large sandstone rocks and boulders. The feature measures 4.7 m long and 50 cm high (2 courses). The dam is 2 courses evident and stands about 50 cm tall. Below feature 16

Feature 18 is the midden. The midden is located south of the center of the site on a 20 to 35 percent slope. The bottom of the midden lies on a natural bench below the site. The soil is ashy

gray/brown silty sand. Artifact density was between 10 to 15 artifacts per square meter. The midden measures 22 m x 15 m.

Feature 19 is the remains of terracing wall that was likely constructed to prevent soil erosion from the center of the site, and to create a level site surface. The wall is measures 5.5 m x 50 cm and is 2-3 courses high (30 cm). The wall is constructed from multiple dry stacked, sandstone rocks and boulders. A small drainage is running through the western edge of the feature from the north.

Cultural Materials: The artifact assemblage consists of hundreds of artifacts including ceramic sherds, flaked lithic debitage, and stone tools. Also, a piece of shell was found. Sixty-seven stone tools were recorded at the site and include two Abajo Stemmed projectile points, one and two- hand manos, basin metates, trough metates, slab metates, bifaces, and cores. Flaked debitage includes biface and core reduction flakes, as well as angular debris and flake fragments. Lithic materials at the site include white chert, tan quartzite, gray chalcedony, gray/white/purple chert, red/whit chert, tan quartzite, green quartzite, and red chert.

The ceramic assemblage contains hundreds of sherds including: 239 plain gray, six Chapin Gray, 25 Moccasin Gray, 48 Mancos Gray, four indeterminate corrugated gray, 10 Chapin Black-on-white, one Piedra Black-on-white, one Mancos Black-on-white, four early white wares, 22 indeterminate unslipped red wares, nine Abajo Red-on-orange, and seven Bluff Black-on-red.

Site Condition: The site is in good condition. Water erosion, evidenced through rills and small drainages, is cutting through the northern set of rooms and wall alignments, and the midden areas moving artifacts. The features located on the flattened terrace remain intact and buried cultural deposits are believed to exist. Cow grazing in the canyon continues to shift artifacts and rock alignments.

National Register of Historic Places Eligibility: Site 42SA2336 (ML-1343) consists of a two small, multiple-room structures with associated jacal structures, an artifact scatter, and additional features. The presence of the Abajo stemmed projectile points, Chapin Gray, Chapin Black-on-white, Abajo Red-on-orange, Piedra black-on-white, White Mesa black-on-white, Bluff Black-on-red, Mancos Gray, and Moccasin Gray sherds suggest an Early-Middle Pueblo I and late Pueblo I occupation of the site. The jacal structures, multi-roomblock structures, pit structures, other features, and well-developed midden suggest that the site was utilized over a long period of time as a permanent habitation site. Further investigation and research at the site is likely to yield additional important information to the Pueblo I chronology, settlement, and economy of the Allen Canyon region of the Manti-La Sal National Forest. Therefore, the Forest Service determines that site 42SA2336 (ML-1343) is eligible for listing on the National Register of Historic Places under Criterion D.

State Number: 42SA2351

Agency Number: ML-1358

Site Type: Architectural

Size: 85 m x 70 m



Figure 10. Site 1358 overview of main room block.

Site 42SA2351 (ML-1358) is a large architectural unit of Pueblo I cultural affiliation (Figure 9 and 10). The site is situated on a low ridge adjacent and west of Allen Canyon creek. The aeolian soil is tan to red brown, silty sand. The slopes below the structure to the east contain many sandstone and some diorite rocks. The site lies in a piñon-juniper woodland with an understory of serviceberry, low sagebrush, cacti, forbs, and grasses. The site sits 6,160 ft. (1,878 m) above sea level.

The site was originally recorded in 1972 by archaeologists from Brigham Young University (BYU). BYU identified four room blocks consisting of a total of 10 rooms, one pit house, and one check dam. In 1985 the site was revisited by archeologists from Weber State College as a part of the Archaeological Vandalism Assessment project. The Weber State visit identified eight features including one roomblock with 10-12 rooms, a pit house, an additional roomblock, and slab-lined cists. The site had not been vandalized, and appears to be in similar condition as described in the 1985 site record. In May and July of 2013 Forest Service archaeologist updated the site form. Generally, the site consists of a large architectural unit, cists, a large pit structure depression, and other structural features. Although it is difficult to assess the overall number of rooms, the size of the structure alongside multiple, partial wall alignments suggest somewhere between 10-20 rooms. The structure contains an intact milling bin and hearth. A large midden is down slope and east of the structure, and a second midden with gray ashy soil and a moderate amount of sherds and lithics lies to the south of the structure.

The artifact assemblage consists of hundreds of artifacts dispersed across the site. Heavier densities of artifacts are located in the two middens (Feature 4 and 9). The densities are between

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10-20 artifacts per square meter in the eastern midden (Feature 4), and 5-10 artifacts per square meter in the southern midden (Feature 9). Artifacts include various ceramic sherds, flaked lithic debitage, and stone tools. To determine the cultural affiliation and the function and use of the site, in-field artifact analysis was performed. Also, the BYU 1972 ceramic artifact collections from the site stored at Edge of the Cedars State Park were analyzed.

Features: Nine features were recorded at the site. Feature 1 is a multiple-room structure trending east to west along the low ridge. The feature is complex, and roughly F-shaped overall. In areas there are clear wall alignments outlining room, in other portions scatter architectural rubble obscures room definition. Upright slabs and masonry rubble suggest a masonry/jacal construction. At least one probable meal bin indicated by upright slabs within a room. The sandstone is unshaped, and approximately 40 cm in size. Probably 10-20 rooms are present. The west extent of the structure has 3-4 rooms clearly delineated by upright slabs and masonry. A midden (Feature 9) is associated to the south of the rooms. About midway, a north – south alignment of large boulders forms a wall. A curvilinear alignment of upright slabs is evident to the west of this boulder alignment. A large depression (Feature 3) lies in the southeastern portion of the structural area. Rubble from Feature 1 abuts the northern side of the depression and a low mounded area abuts the eastern side potentially indicating a room. A series of upright slab alignments partially define rooms in the eastern extent of Feature 1, but insufficient to well-define rooms.

Feature 2 is a cist approximately 1 m in diameter. Four upright slabs are evident with a pair on either side of the feature. Slabs extend 8 to 20 cm above ground. The feature contains sandy fill.

Feature 3 is a large, 10 m depression. The feature is approximately 40 cm deep and has rubble along the northern and eastern sides and bermed earth along the western edge.

Feature 4 is a midden located on the slopes to the east of the structure. The midden measures 30 m x 20 m. Artifacts density is 10-20 per square meter. Artifacts in the midden include various ceramics, flaked lithic debitage, and lithic tools. The soil is ashy with abundant sandstone and diorite rocks.

Feature 5 is a cist measuring 1.10 m x 1.30 m. A couple of upright slabs and cobbles form a circular outline. Slabs extend 15 cm above ground.

Feature 6 is a surface structure located in the southernmost portion of the site, and measures 7 m x 5 m. The structure may have two rooms as indicated by potential wall alignments. The northeastern corner still has three courses of stacked rock masonry visible. The building blocks are unshaped sandstone, and generally 20-40 cm in size.

Feature 7 is a cist measuring 1 meter in diameter. The cist is a rough ovoid shape with six upright slabs identifying its perimeter. The upright slabs extend 10-20 cm above the ground. The fill is sandy. The slabs on the eastern side are slumping downslope.

Feature 8 is an upright slab structure measuring 50 cm x 40 cm. The feature is roughly square shaped, and the upright slabs are fire reddened. The slabs extend 6-10 cm above the ground surface. The feature is amongst the rubble of the large multi-room structure.

Feature 9 is a moderate density midden (5-10 artifacts/square meter) measuring 15 m x 10 m. The midden is located to the south of the structure. Artifacts in the midden include various ceramic sherds and flaked lithic debitage. The soil is ashy gray with an abundance of charcoal flecks.

Cultural Materials: The artifact assemblage is composed of hundreds of ceramic sherds, pieces of flaked lithic debitage, and stone tools. The 27 recorded stone tools include cores, a drill, trough metates, two-hand manos, an Abajo Stemmed projectile point, and bifaces. Cultural materials identified at the site include white chert, white chalcedony, red chert, white quartzite, gray quartzite, and gray siltstone. The 497 analyzed ceramic sherds are dominated by plain gray ceramic sherds (354 or 71.2 percent). Pueblo I period ceramic counts of, Moccasin Gray (n=37), Bluff Black-on-red (n=28), Early Mancos Gray (n=23), and Late Mancos Gray (N20) are the next most common sherds located at the site. Also, nine White Mesa Black-on-white ceramic sherds were recorded. Additional ceramics at the site include: five Chapin Gray, one Chapin Black-on-white, one Piedra Black-on-white, 13 indeterminate, unslipped pieces of red wares, two indeterminate corrugated sherds, and four early white wares.

Site Condition: The site is in good condition. Wind and water erosion are impacting the site by exposing, burying, and moving artifacts at the site. Cattle grazing at the site is moving and breaking artifacts.

National Register of Historic Places Eligibility: Site 42SA2351 (ML-1358) is an architectural site of culturally affiliated to the Pueblo I period. The site consists of a two multiple-room structures with cists, an artifact scatter, and additional features. The presence of the Abajo stemmed projectile point, Chapin Gray, White Mesa black-on-white, Bluff Black-on-red, Mancos Gray, and Moccasin Gray sherds suggest a late Pueblo I occupation of the site. The multi-roomblock structures, pit structure, other features, and the well-developed midden suggest that the site was utilized over a long period of time as a permanent habitation site. Further investigation and research at the site is likely to yield additional important information to the Pueblo I chronology, settlement, and economy of the Allen Canyon region of the Manti-La Sal National Forest. Therefore, the Forest Service determines that site 42SA2351 (ML-1343) is eligible for listing on the National Register of Historic Places under Criterion D.

DISCUSSION

The following discussion is organized by three principal areas of inquiry: chronology, settlement and economy, and social interaction. As discussed above, the three largest sites within the southern area of Allen Canyon were updated to provide additional information critical to understanding the Pueblo I community in this portion of the canyon. This updated information and data derived from the GIS database and the Heritage site records available at the Monticello Ranger District office, as well as from collections available at Edge of the Cedars State Park in

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Blanding, Utah allow for an evaluation of the research questions and an understanding of the Pueblo I community in southern area of Allen Canyon.

CHRONOLOGY

Assessing when sites were occupied is a primary research question. For our purposes, establishing the chronological placement for sites provides a basis for addressing the other two research domains. With a temporal framework, studies that consider changes in settlement locations and how these patterns relate to ecological and social processes can be elicited.

Ceramic cross-dating

Ceramic cross-dating is a powerful chronological tool used to date Ancestral Puebloan sites in the region. Although chronometric dating (dendrochronology, archaeomagnetic dating, and radiocarbon) is well established in the Mesa Verde region, these dates are few for the Pueblo I era in the southeastern Utah area. Nevertheless, the foundations of the overall ceramic chronology are solid and allow for a temporal ordering of the sites although there is a solid need for excavation and chronometric dating of Pueblo I sites in southeastern Utah. Table 2 summarizes the common ceramic types found in the region and the date ranges proposed for each ceramic type (e.g. Green 2010; Irwin et al. 2000; Ortman et al. 2005; Wilson and Blinman 1995). Table 3 depicts composite results of in-field analysis, field collections, and museum collections from the sites within the study area. From this data, several patterns are noteworthy.

Table 3. Common ceramic types in the region with date ranges.

Ceramic Type	Date Range
Chapin Gray	A.D. 550-900
Moccasin Gray	A.D. 775-900
Mancos Gray	A.D. 875-975
Indeterminate Corrugated	A.D. 900-1300
Chapin Black-on-white	A.D. 575-900
Piedra Black-on-white	A.D. 750-900
White Mesa Black-on-white	A.D. 775-950
Mancos Black-on-white	A.D. 975-1175
Early White Ware	A.D. 600-900
Late White Ware	A.D. 900-1150
Abajo Red-on-orange	A.D. 700-850
Bluff Black-on-red	A.D. 750-925
Deadman's Black-on-red	A.D. 900-1050
Indeterminate unslipped Red Ware	A.D. 700-900
Indeterminate slipped Red Ware	A.D. 900-1050

Although most of these ceramic types are familiar to people working in the greater Mesa Verde region, two ceramic types bear special mention. White Mesa Black-on-white is a Pueblo I period ceramic type that is manufactured in southeastern Utah area. This type is the local areas equivalent to Piedra Black-on-white that is found more commonly eastward. Hurst et al. (1985)

described White Mesa Black-on-white as a formal type that is manufactured in the Western Mesa Verde Anasazi area during the Pueblo I period. This type seems to occur slightly later in time than Piedra Black-on-white that is more common in the Eastern Mesa Verde area. Following Green (2010) White Mesa Black-on-white is dated between A.D. 775 and 950.

Another important variation worthy of note occurs within the Mancos Gray type. Winston Hurst (personal communication 2012) identifies an important distinction in the Mancos Gray type that is of temporal importance. Mancos Gray is distinguished from Moccasin Gray by narrower neck-bands and distinctive clapboard style. Hurst indicates that Mancos Gray changes during the terminal Pueblo I times (post-A.D. 880 closer to A.D. 900) when there is a tendency toward narrow neck-bands that are more rounded with evidence of tooling that accentuate the neck bands.

Wide arrays of ceramic types are represented at the sites in the southern area of Allen Canyon (Figure 11; Table 4). Looking at ceramic types at Sites 1341, 1343, and 1358 some noteworthy patterns emerge (Figure 11; Table 4). At site 1343, the proportion of earlier types including Chapin Black-on-white, Chapin Gray, and Abajo Red-on-orange represented is somewhat higher than Sites 1341 and these diagnostics are nearly absent in the 1358 assemblage. As seen in Table 3, Chapin Gray is found in assemblages dating between A.D. 550 to 900 and Chapin Black-on-white dates between A.D. 575 and 900. These ceramic types are most commonly associated with the Basketmaker III period. Abajo Red-on-orange dates between A.D. 700-850 and is typically associated with the Pueblo I period, but begins in terminal Basketmaker III contexts.

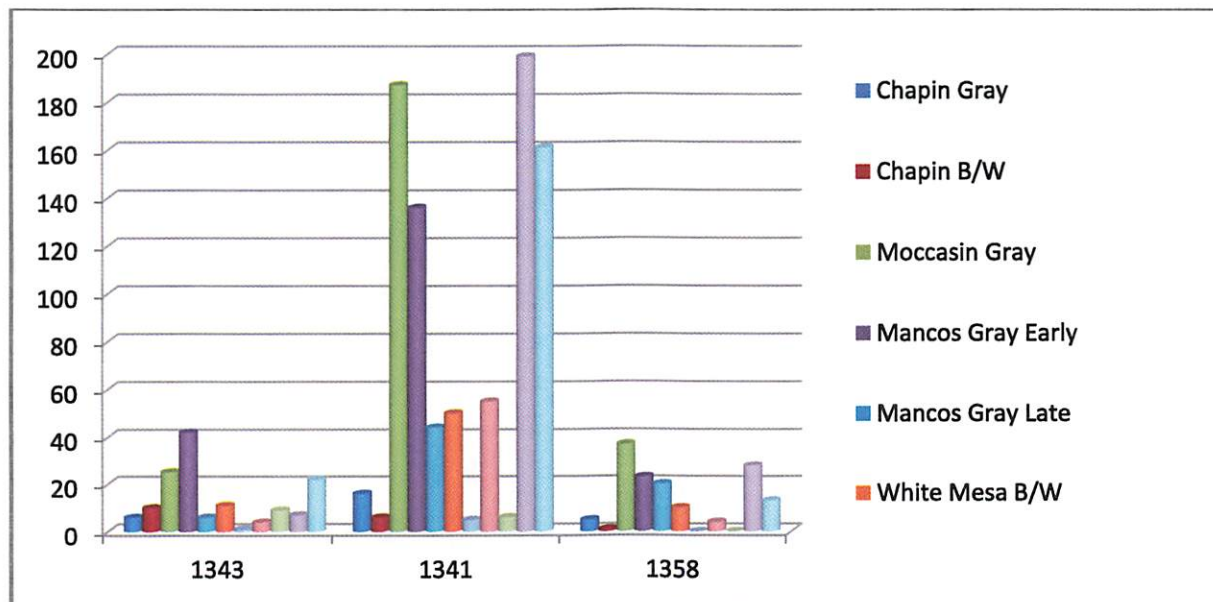


Figure 11. Ceramic counts identified at the three updated sites in the study area.

The dominant diagnostic ceramic types at all of the sites are Moccasin Gray (A.D. 775-900), Mancos Gray (A.D. 875-975), Bluff Black-on-red (A.D. 750-925), and White Mesa Black-on-white (A.D. 775-950) clearly indicating a solid Pueblo I date. While these types span early and

late Pueblo I contexts, the strong representation of Mancos Gray in the assemblage is indicative of late Pueblo I period occupation at the sites. At Site 1341, Moccasin Gray (n=186) and Mancos Gray (n=180) occur in nearly equal frequencies with just slightly more Moccasin Gray represented. At Site 1343, Mancos Gray (n=48) occurs in nearly twice the frequency as Moccasin Gray (n=25). Site 1358 also has less Moccasin Gray (n=37) than Mancos Gray (n=43). These patterns may indicate that the occupation at Site 1341 may have been initiated somewhat earlier in the Pueblo I period than the other two sites when Moccasin Gray was the more dominant form of neck-banded pottery, but persisted into the late Pueblo I period when Mancos Gray becomes more dominant.

As discussed above, a distinction was made during analysis between the strongly clapboard, earlier Mancos Gray and later, narrow neckband and tooled variants typical of the late Pueblo I times. Looking at the ratio of early to late Mancos gray variants, Site 1343 has 6:1 ratio of early to late Mancos Gray with the later type comprising 12.5 percent of the Mancos Gray sherds. Site 1341 has a 3:1 ratio with 25 percent being the late variant and Site 1358 has nearly a 1:1 ratio with 46.5 percent of the Mancos Gray being the late variant. In other words, most of the population is concentrated at Sites 1341 and 1358 during the latest portion of the Pueblo I period approaching the A.D. 900 era.

Small numbers of corrugated gray wares and Mancos Black-on-white are present at Sites 1341, 1343, and 1358. These ceramics indicate some sort of use of the site area during Pueblo II times. We commonly see small numbers of corrugated gray wares and Mancos Black-on-white sherds at sites with late Pueblo I period ceramics on the Forest. There are no definitive Pueblo II era features identifiable at these sites.

Ceramic data from other sites in the southern area of Allen Canyon has primarily been derived from collections available at Edge of the Cedars State Park (EOC). These collections, coupled with field observations made during Fall 2013 have allowed for some insights into the broader community; however, it must be noted that no additional ceramic data was collected during the 2013 visit and the context, low counts, and representativeness of the museum collections is not well-established. In some instances, referring to the 1970s sites forms has allowed for further refinement of temporal data. These caveats having been said, the potential chronology of the Basketmaker III to Pueblo I sites identified in the Heritage database has been explored to further our knowledge of the southern Allen Canyon Pueblo I community.

Of sites in the southern area described in Heritage database, five have only plain gray represented in the EOC collections (Sites 1354, 1363, 1367, 2639, and 2649). One of these sites (Site 1363) has 2 plain gray and one Chapin Black-on-white suggesting a Basketmaker III period occupation; however, the 1970s site form lists a Bluff Black-on-red sherd is present at the site suggesting an early-to-middle Pueblo I date is most likely for Site 1363.

Pueblo I types are present on 10 community sites (Sites 1344, 1348, 1350, 1352, 1353, 1355, 1357, 1360, 1363, 1373). Site 1352 is probably a late Basketmaker III to early Pueblo I site with only plain gray and Abajo Red-on-orange represented. Site 1353, 1357, and 1371 may also be early-to-middle Pueblo I period sites, with ceramics on Site 1353 limited to plain gray and Moccasin Gray, Site 1357 having plain gray, Chapin Black-on-white, Moccasin Gray, and Bluff

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Black-on-red, and Site 1371 containing plain gray, Chapin Gray, Moccasin Gray, White Mesa Black-on-white, Bluff Black-on-red, and early white ware. The remaining sites (Sites 1344, 1348, 1350, 1355, 1360, 1373) have late Pueblo I period sherds including Moccasin Gray, White Mesa Black-on-white, Bluff Black-on-red, and Mancos Gray. Site 1361 ceramics include plain gray, early white wares, and Mancos Black-on-white. The latter type suggests a Pueblo II period occupation.

It is also clear that several of the southern Allen Canyon sites have Pueblo II components. Sites 1348, 1350, 1355, 1357, 1360, and 1373 contain corrugated gray wares, Mancos Black-on-white, Deadman's Black-on-red, and Tusayan Black-on-red in addition to the Pueblo I types. These types are indicative of a Pueblo II period occupation or use of these site areas. Good examples of these multicomponent sites are Sites 1348 and 1368; however, these sites also provide cautionary tales of the challenge in interpreting the EOC collections and the 1970s data from the sites.

Site 1360 is a moderate-size habitation that has sherds from the Pueblo I and Pueblo II periods. EOC collections are dominated by Pueblo II ceramics along with lesser numbers of Pueblo I types. The Pueblo II ceramics include corrugated gray wares, Mancos Black-on-white, and Tusayan Black-on-red while the Pueblo I types include Moccasin Gray, early and late Mancos Gray, Bluff Black-on-red, unslipped red ware, early white ware, and White Mesa Black-on-white. These data appear to suggest that the dominant component at the site is the Pueblo II component; however, field observations showed a strong ceramic assemblage dating to Pueblo I period dominated the site with lesser amounts of corrugated and a few Mancos Black-on-white being observed on the surface. The Pueblo I ceramic types included Moccasin Gray, Mancos Gray, Bluff Black-on-red, and White Mesa Black-on-white along with hundreds of plain gray sherds suggesting a dominant late Pueblo I occupation. The low numbers of Pueblo II sherds observed in the field could be explained by a very small number of broken vessels indicating only a minor Pueblo II period presence at the site. Unfortunately, no new ceramic data was obtained from the site, but the field visit provided essential information for understanding the available data.

Similarly, the field visit to Site 1348 provided important insights into the nature of the site. In this instance, the EOC assemblage has abundant plain gray along with lesser numbers of Chapin Gray, Moccasin Gray, early Mancos Gray, unslipped red ware, early white ware potentially signaling a Pueblo I date. A second Pueblo II period component might be inferred from the four corrugated gray ware, two late white wares, and two Deadman's Black-on-red. The field visit to the site revealed the dominant character of the site is that of a Basketmaker III site indicated by one or more slab-lined pit structures and circular, slab-lined storage features. A Pueblo I component is present and indicated by a small, multiple room jacal structure. Although plain gray ware ceramics are abundant at the site, no Pueblo I ceramics remained in association with the jacal structure suggesting all of the Pueblo I ceramics were collected or washed away in the past years. No evidence was found of either Pueblo II ceramics or features. It is possible that the white wares and Deadman's Black-on-red ceramics in the EOC were misclassified or that all of the Pueblo II sherds are incidental to the primary occupations of the sites.

Ceramic Complexes

A second way of looking at dating at the sites, based on ceramic assemblages, is to group ceramic assemblages into complexes of co-occurring types that occur in a given temporal period. The complexes have been subjectively developed based on previous work on the Forest (Irwin et al. 2000) and conversations with local experts (Hurst personal communication).

Complex 1

Complex 1 consists of primarily plain gray body sherds, Chapin Gray (A.D. 550-900), and Chapin B/W (A.D. 575-900) sherds. Sites with only gray ware sherds are also included in this complex. These sherds date sites to the Basketmaker III period (A.D. 550-725). In this complex, the introduction of small numbers of Abajo Red-on-orange, places the assemblage closer to the A.D. 700-725 end of the scale.

Complex 2

Plain gray body sherds dominate this complex along with lesser numbers of Chapin Black-on-white (A.D. 575-900), Chapin Gray (A.D. 550-900), Moccasin Gray (A.D. 775-900), and Abajo Red-on-orange (A.D. 700-850). Bluff Black-on-red (A.D. 750-925), White Mesa Black-on-white (A.D. 775-950), and Piedra Black-on-white (A.D. 750-900) are not typical of the earliest Pueblo I contexts, but these types begin to show up toward the A.D. 800s. This complex is indicative of an early-to-middle Pueblo I period occupation, roughly between A.D. 750 and 850.

Complex 3

Complex 3 is also dominated by plain gray body sherds along with small amounts of Chapin Gray (A.D. 550-900), moderate amounts of Moccasin Gray (A.D. 775-900). Mancos Gray (A.D. 875-975), White Mesa Black-on-white (A.D. 775-975), Piedra Black-on-white (A.D. 750-900), and Bluff Black-on-red (A.D. 750-925) become significant portions of the assemblage. This complex is typical of mid-to-late Pueblo I period occupations, roughly between A.D. 850-920. As mentioned above, the presence of late Mancos Gray variants is of significance and signal a post-A.D. 880 occupation, probably closer to the A.D. 900.

Complex 4

Undifferentiated plain gray body sherds, Mancos Gray (A.D. 875-950), Deadman's Black-on-red (A.D. 900-1050), Mancos Corrugated (A.D. 900-1200), undifferentiated corrugated body sherds, and Mancos Black-on-white (A.D. 975-1175) occur in Complex 4. This complex is considered to be representative of early-to-mid Pueblo II occupations (roughly A.D. 900-1050) and is distinguished by an absence of diagnostic types typical of the Pueblo I period on the Forest, such as Chapin Gray, Abajo Red-on-orange, Moccasin Gray, Bluff Black-on-red, Piedra Black-on-white, and White Mesa Black-on-white.

Examination of the ceramics from the updated sites and data derived from surrounding sites available in the collections at Edge of the Cedars State Park reveal a number of temporal patterns. Components dating to the Basketmaker III, early-to-middle Pueblo I, late Pueblo I, and Pueblo II periods are distinguishable (Table 5; Figure 12).

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Site 1341 has minor representation of sherds (about 1.2 % of assemblage) associated with Complex 1, but strong representation of types typical of Complex 2 and, particularly Complex 3 ceramic associations. Ceramic types, such as Chapin Gray, Chapin Black-on-white, and Abajo Red-on-orange are found in Complex 1 and continue into Complex 2 where they co-occur with other types including Moccasin Gray, Piedra Black-on-white, and Bluff Black-on-red. Above, it was demonstrated that Moccasin Gray was represented in almost equal proportions as Mancos Gray in contrast to Sites 1343 and 1358 where Mancos Gray was more dominant. These data suggest the occupation at Site 1341 was likely to have been established sometime during the early-to-middle Pueblo I period, but the primary occupation of the site can likely be placed in the late Pueblo I period after A.D. 880.

Site 1343 appears to have two components based on these complexes. Diagnostic ceramics typical of Complex 2 include Chapin Gray, Chapin Black-on-white, Abajo Red-on-orange, Moccasin Gray, Bluff Black-on-red suggesting an early-to-middle Pueblo I component at the site. While some of these types may signal associations with Complex 1 and a late Basketmaker III occupation, architectural data from the site, discussed below, indicate an early Pueblo I period date is more likely. A second component dated to the Late Pueblo I is indicated by strong representation of diagnostic ceramics typical of Complex 3.

Table 5. Ceramic complexes identified at the Allen Canyon Sites.

Site Number	Complex 1	Complex 2	Complex 3	Complex 4	Temporal Affiliation 1	Temporal Affiliation 2
	Late BMIII-early Pueblo I AD 550-750	Early-Middle Pueblo I AD 750-850/875	Late Pueblo I AD 875-920	Pueblo II AD 900-1000		
1341					Late Pueblo I	
1343					Early-Middle Pueblo I	Late Pueblo I
1358					Late Pueblo I	
1344					Late Pueblo I	
1348					Basketmaker III	Late Pueblo I
1350					Late Pueblo I	Pueblo II
1352					Basketmaker III-Pueblo I	
1353					Early-Middle Pueblo I	
1354					Basketmaker III	
1355					Late Pueblo I	Pueblo II
1357					Early-Middle Pueblo I	
1360					Late Pueblo I	Pueblo II
1361					Pueblo II	
1363					Basketmaker III	
1367					Basketmaker III-Pueblo I	
1371					Early-Middle Pueblo I	
1373					Late Pueblo I	Pueblo II
2639					Basketmaker III	
2649					Basketmaker III	

Site 1358 has trace amounts of Chapin Gray (n=4) and Chapin Black-on-white (n=1), but otherwise it appears to have a solid association with Complex 3. As discussed above, the strong representation of Mancos Gray, particularly the late variety, strongly suggests a post-A.D. 880 to A.D. 900 date for the site.

As for other community sites, six sites have Complex 1 sherds including Sites 1348, 1352, 1354, 1367, 2639, and 2649. Complex 1, as discussed above, is indicative of Basketmaker III to the very early Pueblo I. The majority of these sites have only plain gray ware sherds present, but Site 1352 also has one Abajo Red-on-orange sherd.

Complex 2, representative of early-to-middle Pueblo I contexts, is represented at Sites 1341, 1343, 1353, 1357, 1363, and 1371. Site 1341 and 1343 have been discussed above. As discussed in the preceding section, Site 1353 ceramics are limited to 11 plain gray and one Moccasin Gray providing very weak associations with Complex 2. Site 1357 has plain gray, Moccasin Gray, and Bluff Red-on-black signaling a generalized Pueblo I date. Site 1363 has plain gray ware, Chapin Gray, Chapin Black-on-white, and unslipped red ware suggesting an early Pueblo I date. Site 1371 exhibits a strong early-to-middle Pueblo I period assemblage and contains plain gray, Chapin Gray, Moccasin Gray, White Mesa Black-on-white, Bluff Black-on-red, and early white ware.

Complex 3 is indicative of late Pueblo I contexts after A.D. 880. As mentioned above, Sites 1341, 1343, and 1358 all have strong Complex 3 associations. Community sites with Complex 3 associations include Site 1344, 1348, 1350, 1355, 1360, and 1373. Sites 1348 and 1360 have been discussed in the preceding section and will not be discussed in detail here except to mention that Site 1360 has a substantial late Pueblo I assemblage present at the site. Site 1344 has only three sherds and only the weakest association with this complex based primarily on a single Mancos Gray sherd. Similarly, the association of Sites 1350 and 1355 with this complex rests solely on the presence of three Moccasin Gray and three Mancos Gray sherds collected from Site 1350, and only 3 Moccasin Gray, 5 Mancos Gray, and 1 Bluff Black-on-red from Site 1355. The association with Complex 3 is stronger at Site 1373.

Complex 4 components are found at 1348, 1355, 1360, 1361, and 1373. Complex 4 ceramics generally occur in low frequency on most of these sites. The exceptions are Sites 1355 and 1360. Above, Site 1360 was discussed and the potential challenges to interpreting the presence of Complex 4 ceramics; however, Sites 1355, 1361, and 1373 were not revisited. Interestingly, the 1970s site form for Site 1355 indicates it has one small, square surface structure and a very limited ceramic assemblage (n=135). It appears that nearly every ceramic found at the site was collected. We commonly see small numbers of corrugated gray wares and Mancos Black-on-white sherds at sites with late Pueblo I period ceramics on the Forest. In fact, some areas of the Forest like Milk Ranch Point, it is common for late Pueblo II-early Pueblo III period peoples to reoccupy prominent late Pueblo I sites.

Lithic Cross-dating

The primary tool available for relative dating is the projectile points. These tools may provide some information for evaluating temporal placements. This discussion is limited to the projectile points documented during the in-field analysis at Sites 1341, 1343, and 1358, and does not include points from these or other sites in the study area that were collected by the 1970s surveyors.

Two Abajo Stemmed points were documented at Site 1341 along with two non-diagnostic point fragments, a potential Scottsbluff point. Abajo Stemmed points are typical of Pueblo I period

sites on the Forest. It should be noted that additional Pueblo I stemmed and other types were collected from this and other sites in the project area during the 1970s surveys and are not included in the present discussion. The presence of the potential Scottsbluff point reflects scavenging behavior by the Pueblo I occupants of the site rather than indicating a temporal component. Nine points were documented at Site 1343. Two of the points, though broken, appear to be Abajo Stemmed types, two are Elko Corner-notched points, and five are non-diagnostic point fragments. The Elko Corner-notched points may reflect scavenged Archaic points or, possibly Basketmaker III variants. As mentioned, the Abajo Stemmed points are typical of Pueblo I period sites. Only one projectile point was documented at Site 1358. The point is an Abajo Stemmed variety and indicative of Pueblo I era sites.

Features

Comparative data on feature morphology at the study area sites may also provide clues to the temporal affiliation of the occupations. Architectural forms in the region have been documented to change through time and may provide information important to temporal affiliation.

Within the southern area of Allen Canyon, sites dating to the Basketmaker III through the Pueblo I period have been documented. As discussed above, characteristically, sites dating to the Basketmaker III period contain ceramic assemblages almost exclusively comprised of Chapin Gray and Chapin Black-on-white although small amounts of Abajo Red-on-orange are found, particularly toward the transition into early Pueblo I times.

Regionally, Basketmaker III sites generally contain domestic architecture changed from simple basin shaped depressions or informal pits covered with a mud and wood superstructure typically found in the preceding period to more substantially engineered, bi-lobed pit houses constructed over house pits up to about one meter deep. A typical pit house contained a shelf around the rear section of the main room, an antechamber that was connected to the main chamber by a short passageway, and a ladder that enabled entry into the house via a smoke/entry hole in the roof. Wilshusen (1999: 174) notes that by about A.D.725 antechambers become less frequent and pit structure depth gets significantly deeper. In addition to domestic pit structures, associated features such as storage cists, small domed storage structures, and hearths are typically found at Basketmaker III habitation sites.

On the Monticello District, residential sites dating to the Basketmaker III period appear to frequently contain one or more circular, slab-lined pit structures. Some of these sites contain contiguous circular, slab-lined structures and/or slab-lined cists as well, presumably for storage purposes. While dating of these sites on the basis of ceramic evidence alone is poor, it is likely these represent later Basketmaker III to early Pueblo I era occupations. Within the study area, Sites 1348, 2639, and 2649 clearly express architecture typical of Basketmaker III times, as well as illustrating these differences in site structure that may indicate subtle temporal variations. Site 2639 contains slab-lined circular pit structures and isolated slab-lined cists. Site 2649 contains a single circular, slab-lined pit structure. Site ML1348, in contrast, has at least one circular, slab-lined pit structure with associated contiguous, slab-lined storage features and cists, as well as a small, multiple-room Pueblo I era surface structure. The Pueblo I structure has rectangular rooms outlined by low, single-width wall alignments and, presumably, jacal construction.

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Site 1343 affords a good opportunity to glimpse early Pueblo I construction techniques. Feature 11 in the eastern portion of the site has surface indications of a single line of sandstone blocks and slabs positioned in an L-shaped alignment. A piece of burned adobe found in association exhibits impressions of plant material. The impressions are those of a small cross member (< 5 cm) and parallel, 1 cm wide grooves such as willow or reeds pressed into mud. This patterning likely indicates a wattle-and-daub construction technique. A second structure, Feature 14, is indicated on the surface by a low mound of burned, 5 to 10 cm size rock. Auger testing of the feature indicated structural fill consisting of a mottled dark gray and reddish-brown clay loam with abundant charcoal flecks; small pieces of burned adobe, or daub, were noted in the matrix. This feature is very similar to Pueblo I structures that are abundant at small sites on Wetherill Mesa in Mesa Verde National Park that are equated to early Pueblo I jacal construction (Donald Irwin 2001, personal observation). Additionally, a slab-lined, single room structure (Feature 9) found in the eastern portion of the site has been interpreted to be a jacal room that likely dates to this period. The feature is small and square, measuring 2 m x 1.6 m.

In contrast to these early Pueblo I wattle-and-daub and jacal structures, the abundant rubble and rock alignments noted for other structures at Site 1343 likely are representative of the late Pueblo I occupation at the site and a shift toward the use of more substantial masonry footers and jacal construction. Auger testing revealed the presence of a pit structure within the level terrace area of the site. An 8 x 4 m area of architectural fill was identified by augering that ranged in depth from 70 cm to 1.5 m. Within the deepest auger tests, a distinct ash layer was found at floor level and large chunks of charcoal were present, suggesting the pit structure was burned. The augering data are somewhat challenging to interpret, but it is likely that two superimposed pit structures are present in this area. Wilshusen (1999b: 201) notes that there is a trend toward deeper excavation of pit structures through the Pueblo I period. At around A.D. 750, pit structure excavations would have been shallower and roofs would have been from 50 to 75 cm above ground. In contrast, around A.D. 850, pit structures are excavated much deeper and roofs would have been roughly even with the ground surface. These data lend support to the notion of early and late Pueblo I occupations at the site. Finally, the latest use of the site, which is unknown at present, post-dates the use of the deeper pit structure. A slab-lined cist is evident on the surface and constructed in the fill of the abandoned structure. No datable materials were evident within the clean fill inside the cist, as indicated by an auger test, but its relative position indicates it was constructed well after the pit structure was abandoned and filled with sediments.

Sites 1341 and 1358, the architecture strongly indicates a late A.D. 800s construction. The mixed use of upright slab and masonry combinations, as well as what may be an early example of full height masonry at site 1341 (Room A), is typical of this era on the Forest. There is no evidence of the more ephemeral small-stone jacal architecture, such as seen at 1343. The massive terrace walls and water control features (check dams) evident at Site 1341 are not unlike other late Pueblo I sites on the Forest where a great deal of terracing and check dam construction have been documented. One of the emerging hallmarks of the late Pueblo I sites on the Forest is architectural innovation and is evidenced by experimentation with full-height masonry, building site engineering, and intensive agricultural practices.

Site 1347 bears special mention here. This site was initially described as a tower site by the 1970s survey and applied a Pueblo III affiliation. Although only gray ware sherds were noted

and collected from the site, these were apparently lost before reaching the lab. A revisit to the site suggests that the “tower” designation is erroneous. If one examines the site and features, a number of points stand out that contradict the initial assessment. First, there is no evidence that the feature, consisting of two adjacent rooms, ever had height beyond that which is currently visible. If these were collapsed tower, architectural rubble would be abundant, but it is not. Secondly, there is no evidence that the coursed masonry was wet-laid, rather, it appears to be a dry-laid construction. Finally, the use of large upright blocks and large, unshaped or crudely edge-flaked slabs closely resemble the stone and methods used in the construction of structures at Site 1341. These factors, along with the absence of later ceramic types, suggest it is likely that this site dates to the late Pueblo I period rather than the Pueblo III period.

SETTLEMENT AND ECONOMY

Three primary areas are considered in the study of settlement and economy presented below. First, the site function and use is considered. This leads to a discussion on economy and subsistence. Finally, settlement patterns are investigated.

SITE FUNCTION AND USE

The function and use of a site is investigated through the kinds and numbers of features and artifact categories represented. Behaviorally, three aspects are important to investigating site function: activity type, activity diversity, and occupation duration (e.g. Geib 1996; Hurt 2001; Irwin 2001; Irwin et al. 2000; Irwin and Freels 2012). The constellation of features and artifacts are used to investigate these aspects.

Features

The numbers and kinds of features present at sites may provide important clues to how a site functioned within a settlement system. Features are differentially represented at the sites within the study area (Table 6).

In the southern area of Allen Canyon, we see temporal and functional variability in sites that are reflected by material culture and feature diversity. Temporal discussions presented above indicate that several sites in this area are affiliated with the Pueblo I period.

Basketmaker III-Early Pueblo I Period

Eight sites are affiliated with the Basketmaker III to Pueblo I period (Sites 1348, 1352, 1354, 1363, 1367, 2639, and 2649). Site 1352 and 1367 are artifact scatters and lack constructed features. Site 1354 contains four cists indicating it lacked a residential aspect and functioned as an isolated food storage site. The site is tenuously assigned to the Basketmaker III period based on plain gray ware sherds.

Three sites (Sites 1348, 2639, and 2649) contain one or more circular, slab-lined pit structures; Sites 1348 and 2639 also contain isolated or contiguous slab-lined storage features. It is often difficult to differentiate the slab-lined pit structures from these storage features because of the lack of maps and information provided by the 1970s documentation. The size of these sites and

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constellation of features suggest that these sites are Basketmaker III residential sites that housed more than one or two families. The abundance of cist and other storage features demonstrates an emphasis on food storage, presumably agricultural products. Site 2649 clearly has a circular, slab-lined pit structure reflecting Basketmaker III period domestic use. Although field recorders documented a rubble mound during a 1985 visit to the site that potentially indicated a Pueblo I component, no artifacts associated with this period were noted. The 2013 field visit to the site did not note any Pueblo I materials and found that the rubble mound appears to be a natural feature rather than a cultural feature.

Early-Middle Pueblo I Period

Early-Middle Pueblo I period sites include 1341, 1343, 1353, 1357, 1363, and 1371. Ceramic data discussed above suggest that Site 1341 was likely founded by the late 700s to early 800s era, but it is difficult to fully understand the size and role of the settlement in its earliest manifestation. A couple curious, but very insubstantial and unverifiable, patterns were observed while compiling and screening the ceramic data from multiple collection units across the sites. What was observed was that all of the Abajo Red-on-orange and most of the Chapin Gray sherds were collected from units associated with the eastern roomblock (Feature 1). Additionally, with the exception of one collection unit, the collection units associated with Feature 1 lacked the late variant of Mancos Gray. Additionally, differences in pit structure depth were noted by auger tests. Although most of the augered areas have evidence of substantial erosion, possibly distorting our impressions of the overall excavated depth of the pit structures, these features no doubt provide clues to investigating the timing and changes in the occupation represented at the site. Further work would be needed to substantiate these patterns, but it is intriguing that temporal change in the size and structure of the site may be possible to differentiate with additional data, particularly controlled excavation data.

Site 1343 appears to have an initial occupation during the early-to-middle Pueblo I. In the preceding section, Site 1343 was argued to contain an early Pueblo I component on the basis of ceramic and architectural variability. At Site 1343, three surface structures and a pit structure appear to date to the early-to-middle Pueblo I era. The three structures are wattle-and-daub and jacal structures. In addition to the surface architecture, a potential early Pueblo I pit structure may be identified by auger testing. Four slab-lined cists documented at the site are indicative of food storage.

Sites 1353, 1357, 1363, and 1371 appear to have ceramic assemblages that are consistent with early-to-middle Pueblo I temporal affiliation. As discussed above, Site 1353 is very weakly associated with this period of occupation. It is an artifact scatter that lacks any constructed features. Site 1357 contains a single-room surface structure with associated trash. Field recorders noted 90 ceramic and 35 lithic artifacts suggest a short-term occupation. Site 1363 is described as consisting of two cists and a "pile of rubble". Generally, these rubble features represent a collapsed surface structure and has been interpreted as such here. In this case, a short-term habitation function may be inferred. The only other site in the community that exhibits an early-to-middle Pueblo I period component is Site 1371. This site contains a single-room surface structure and one slab-lined cist. The sparse artifact assemblage (n=122) and absence of midden development associated with the structure suggest a short-term use.

Late Pueblo I period

By the late Pueblo I period, we see an increase in the number of sites occupied or used in the southern Allen Canyon area. On the basis of ceramic cross-dating and architectural style, ten sites (1341, 1343, 1344, 1347, 1348, 1350, 1355, 1358, 1360, and 1373) date to the late Pueblo I period. By far, this era exhibits the greatest amount of diversification in the kinds of sites represented in the southern Allen Canyon area.

Table 6. Features located at the updated Allen Canyon sites.

Site No.	Temporal Affiliation	Multiple-room Structure	Single-room Structure	Pit Structure	Rock Alignment/Check Dam	Cist	Midden
1341	Early-Middle PI and Late PI	1(20+ rooms)*	3	6	14	4	1
1343	Early PI and Late PI	2 (<6 rooms)**	3	1	5	5	1
1358	Late PI	1(10-20 rooms)**	2	1+		4	1
1344	Late PI					4	
1347	Late PI		2 contiguous				
1348	BM III and Late PI	1 (5 room)		1		12***	
1350	Late PI and Pueblo II					1	
1352	BM III	0	0	0	0	0	0
1353	Early-Middle PI	0	0	0	0	0	0
1354	BM III					4	
1355	Late PI and Pueblo II		1				
1357	Early-Middle PI		1				
1360	Late PI and Pueblo II	1 (6-10 rooms)		1			1
1361	Pueblo II					6	
1363	Early-Middle PI		1			2	
1367	BM III	0	0	0	0	0	0
1371	Early-Middle PI		1			1	
1373	Late PI and Pueblo II		1			2	
2639	BM III			4?		6	
2649	BM III		1?	1			1

*The large complex of surface rooms found at ML1341 combines multiple feature designations used for descriptive purposes.

**Estimated by overall extent of rubble scatter and wall alignments.

*** Some of these cists may actually be pit structures.

By the late A.D. 800s, Site 1341 clearly becomes a small village scale settlement. At least 20-30 surface rooms and seven pit structures in size, it is most likely the largest settlement in the late Pueblo I landscape in Allen Canyon. A large, well-developed midden, storage cists, terraces, and check dams are present in addition to the domiciles. It is likely that the rooms represented within the surface room complex include both domestic and storage rooms. Although pit structure size generally ranges between 4 and 6 m diameter, the dimensions of one pit structure (Feature 4)

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were not fully determined. It is possible that this pit structure with a minimum 6 m diameter may be larger and have served as a community oriented feature.

Finally, the food storage aspect of the site must be considered. Although a few slab-lined cists are documented at the site, it is likely much of the food storage occurred within surface rooms. Rooms in Feature 1 may have been inordinately large in comparison with the average size of rooms at other sites of this period on the Forest. We could not distinguish if the large room areas delineated by walls contained internal divisions indicative of additional rooms of smaller size because of the amount of architectural rubble and duff covering the room areas. An alternative scenario might find that these were indeed oversized rooms and indicative of substantial storage and possibly differences in social status in the community. The massive "compound" walls, increased storage space, and larger room size are certainly evident at later great houses in the area, such as Edge of the Cedars.

The closely associated medium-sized residential site, Site 1343, is apparently re-occupied during the late Pueblo I period. Two areas of wall alignments and architectural rubble indicate small, multiple-room (2-4 rooms), surface structures that likely date to the late Pueblo I period. Additionally, augur testing indicated the presence of a 1.5 m deep, pit structure in the levelled terrace in front of the surface structures. The area is culturally levelled and a massive terrace wall fronts the pit structure area. The depth of the pit structure is consistent with a post-A.D. 850 construction. A second terrace wall, check dams, and storage cists are present and likely date to the late Pueblo I period of occupation. A large, well-developed midden covers the slopes below the terraced area. The relationship between this site and Site 1341 is poorly understood at this point. It is difficult to understand the occupational history at this site. Changes in architecture certainly suggest at least two episodes of site occupation. Is a third cycle of use indicated by the construction of a cist in the upper fill of the deep pit structure, or does this simply reflect continual change in the features at the site by multiple generations living at the site during the middle-to-late Pueblo I period

Site 1358 is a large, multiple-household residential site with 10-20 surface rooms with at least one large pit structure; although, it is likely that additional pit structures are present at the site. A site of this size probably housed at least two or more household groups. Additional features include two surface rooms, a sizable midden, and storage cists. Certainly the well-developed midden and substantial construction of surface rooms and pit structure(s) at the site suggest a long-term occupation. The number of cists and the likelihood of surface rooms used in food storage are consistent with an emphasis on supporting a larger family group.

Site 1360 contains a unit pueblo with potentially 6-10 rooms and a substantial pit structure depression. A well-developed midden is present suggesting long-term habitation. The size of the site probably did not exceed that of a single household or extended family. In contrast, Site 1348 has a small, jacal surface structure with an estimated 5 rooms. Few artifacts were observed in the vicinity of the structure during a 2013 field visit and no midden deposits were noted in association with the structure, but the architectural style and well-dated late Pueblo I sherds (n=15) suggest the structure was probably used on a short-term, seasonal basis.

Two small, single-room habitation sites (Sites 1355 and 1373) date to the late Pueblo I. Site 1355 has a single-room surface structure and associated artifact scatter. A total of 135 ceramics and 78 lithic artifacts is present suggesting a short-term residential function for the site. In contrast, Site 1373 has single-room surface structure and 2 cists. The associated artifact scatter contains only 55 ceramic and 50 lithic artifacts. A short-term residential or seasonal habitation function is inferred for the site.

In addition to the habitation sites, two isolated storage sites (Sites 1344 and 1350) and an observation site (Site 1347) are associated with the late Pueblo I period. Site 1344 contains four circular, slab-lined cists, and three sherds. Site 1350 contains one slab-lined cist and an unknown feature consisting of "10 feet of culturally laid mud full of artifacts". These sites have a primary function in the storage of food products.

Site 1347 can best be described as an observation site. It is situated on a high ridge across the canyon from the main village, Site 1341. From this location, commanding views of Allen and the tributary canyon are afforded. The site consists of two rooms constructed of sandstone blocks and slabs; the walls are low, about 1 m high, and well-preserved. Large uprights similar to those used in the construction of Feature 2 at Site 1341 are aligned with Allen Canyon and the tributary canyon. Few artifacts and no additional cultural features are present.

Artifacts Assemblages

Artifact assemblages provide important indicators of activities conducted at sites. The numbers and the kinds of ceramic vessels and lithic tools provide direct evidence of the sorts of activities that were conducted.

Ceramics

The discussion of ceramics focuses on a composite of ceramic data available for the sites in the study area combine in-field analysis, 2013 collections, and collections available at EOC museum. It should be noted that the discussion focuses on Pueblo I era ceramic trends and that data from Pueblo II contexts have been omitted from the following discussion.

Ethnographic and archaeological studies indicate utility wares are used for cooking, food storage, and water containers while decorated bowls are generally used for food mixing, service, and consumption types of activities and decorated jars are generally associated with storage and transport of products, primarily food (Bunzel 1929; Habicht-Mauche 1995; Hurt 2001). These data indicate several patterns of note.

Utility wares clearly dominate the ceramic assemblages at all of the sites (Table 7). This discussion focuses largely on the three larger sites (Sites 1341, 1343, and 1358) that were intensively documented during the project and have large enough samples for discussion. Most of the community sites that were not updated have ceramic counts that are too low for meaningful discussion or data is not adequate for characterizing functional variability; however, where possible, these other sites are brought into the discussion.

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Table 7. Table showing the counts and percentages of utility wares versus decorated wares across all site in the study area.

Site	Temporal Affiliation	Utility Ware		White Ware		Red Ware		All Decorated Wares		Total
		Bowl	Jar	Bowl	Jar	Bowl	Jar	Bowl	Jar	
		Count Ware %	Count Ware %	Count Ware %	Count Ware %	Count Ware %	Count Ware %	Count Ware %	Count Ware %	
1341	Late PI	0	1870 100.0	92 79.3	24 20.7	199 54.5	166* 45.5	291 60.5	190	2351
1343	BMIII-PI/late PI	0	318 100.0	26 96.3	1 3.7	17 43.5	22 56.5	43 65.2	23	384
1358	Late PI	0	439 100.0	17 94.4	1* 5.6	24 64.9	13 35.1	41 74.5	14 25.5	494
1344	Late PI	0	3 100.0	0	0	0	0	0	0	3
1347**	Late I	0	0	0	0	0	0	0	0	0
1348	BMIII-PI/late PI	0	117 100.0	1 100.0	0	4 66.7	2 33.3	5 71.4	2 28.6	124
1350	Late PI	0	16 100.0	0	0	0	0	0	0	16
1352	BMIII-PI	0	7 100.0	0	0	0	2 100.0	0	2 100.0	9
1353	Early-Mid PI	0	12 100.0	0	0	0	0	0	0	12
1354	BMIII-PI	0	8 100.0	0	0	0	0	0	0	8
1355	Late PI	0	34 100.0	8 42.1	11 57.9	1 100.0	0	9 45.0	11 55.0	54
1357***	Early-Mid PI	0	0	0	0	0	0	0	0	0
1360	Late PI	0	35 100.0	1 25.0	3 75.0	1 33.3	2 66.7	2 28.6	5 71.4	42
1361	BMIII-PI	0	31 100.0	0	6* 100.0	0	0	0	6 100.0	37
1363	Early-Mid PI	0	16 100.0	1 100.0	0	0	1 100.0	1 50.0	1 50.0	18
1367	BMIII-PI	0	28 100.0	0	0	0	0	0	0	28
1371	Early-Mid PI	0	69 100.0	3 14.3	18* 85.7	4 66.7	2 33.3	7 25.9	20 74.1	96
1373	Late PI	0	92 100.0	0	0	4 33.3	8 66.7	4 33.3	8 66.7	104
2639	BMIII-PI	0	3 100.0	0	0	0	0	0	0	3
2649	BMIII-PI	0	2 100.0	1 100.0	0	0	0	1 100.0	0	3

*A small number of unknown vessel forms were counted as jars

**No ceramics available. Date based on architectural evidence

***Ceramic data based on 1970s field form, but no vessel form data available

Basketmaker III-Early Pueblo I

Seven sites (Sites 1348, 1352, 1354, 1367, 2639, and 2649) have components dated to the Basketmaker III-early Pueblo I period. Sites 1354, 1367, and 2639 have only utility ceramics represented. For Site 1348, no meaningful patterns can be established for this period as the limited number of decorated ceramics appears to date to the late Pueblo I component. As with Site 1348, no meaningful statements can be made regarding Site 2649. This site collection includes only 2 gray ware jar and 1 Chapin Black-on-white bowl sherds.

Early-Middle Pueblo I

Early-Middle Pueblo I period sites include Sites 1341, 1343, 1353, 1357, 1363, and 1371. It is difficult to say much about the early occupation at Site 1341. Sixteen Chapin Gray jar sherds, 6 Chapin Black-on-white bowl sherds, 3 Abajo Red-on-orange bowl sherds, and 3 Abajo Red-on-orange jar sherds are present. Other types common in the early-to-late Pueblo I period including Bluff Black-on-red and Moccasin Gray cannot be definitively associated with these contexts and are likely to be associated with late Pueblo I period contexts. While food and water transport, storage, and cooking are reflected by the utility and decorated jar sherds, the primary emphasis indicated by the decorated ceramics is food service and consumption.

At Site 1343, it is also difficult to make meaningful statements given the low frequencies of sherds dating to this period. Nevertheless, the assemblage contains 6 Chapin Gray jars, 10 Chapin Black-on-white bowl sherds, and 9 Abajo Red-on-orange sherds; 4 bowls and 5 jars are represented for Abajo Red-on-orange. Other types common in the early-to-late Pueblo I period including Bluff Black-on-red and Moccasin Gray cannot be definitively associated with these contexts and are likely to be associated with late Pueblo I period contexts. While food and water transport, storage, and cooking are reflected by the utility and decorated jar sherds, the primary emphasis indicated by the decorated ceramics is food service and consumption. These data suggest "normal" household domestic activities during the early occupation of Site 1343.

Site 1353 contains only gray ware sherds and Site 1357 has no vessel form data available. Site 1363 has 16 utility wares (88.8 % of the assemblage) along with 1 white ware bowl sherd and 1 red ware jar sherd. At Site 1371, 71.9 percent of the assemblage is utility wares along with slightly higher frequencies of decorated ceramics, although the classification is somewhat problematic as a result of 18 white ware sherds being classified as unknown vessel forms. These sherds have been presented as jar forms based on the assumption that the interior surface treatment of bowls was of sufficient quality to be distinguished even without painted designs. Being as it may, the ceramic assemblage includes 3 white ware bowl sherd, 18 white ware jar sherds, 4 red ware bowl sherds, and 2 red ware jar sherds. If we omit the possible misidentified white ware sherds, decorated bowls used in the service and consumption of food dominate the decorated wares.

Late Pueblo I

Late Pueblo I period sites includes 10 sites (Sites 1341, 1343, 1344, 1347, 1348, 1350, 1355, 1358, 1360, and 1373). Of these sites, Sites 1344 and 1350 have only utility wares represented

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and no ceramic data is available for Site 1347; however, the field form notes the presence of gray wares, but no counts are provided.

Considering Site 1348, 94.3 percent of the assemblage is utility wares. Decorated vessels are limited to 1 white ware bowl sherd, 4 red ware bowl sherds, and 2 red ware jar sherds. Food and water cooking and storage activities dominate the ceramic assemblage with moderate indicators of food service and consumption.

At Site 1355, 62.9 percent of the assemblage is utility wares along with 8 white ware bowl sherds, 11 white ware jar sherds, and 1 red ware bowl sherd. Food and water cooking and storage activities dominate the ceramic assemblage with moderate indicators of food service and consumption.

The assemblage at Site 1360 consists of 83.3 percent utility wares along with 1 white ware bowl sherd, 3 white ware jar sherd, 1 red ware bowl sherd, and 2 red ware jar sherds. Food and water cooking and storage activities dominate the ceramic assemblage with only minor indicators of food service and consumption.

Site 1373 has 88.4 percent utility wares, 4 red ware bowl sherds, and 8 red ware jar sherds. Food and water cooking, storage, and transport activities dominate the ceramic assemblage with only minor indicators of food service and consumption.

Differences in the percentage of utility wares varies between Sites 1341 (79.5 %), 1343 (82.8 %), and 1358 (88.9 %); the remainder of ceramics at the sites is comprised of decorated ceramics. It is possible that the lower proportions of gray ware jars at Site 1341 are indicative of an increased use of surface room space for food storage.

The decorated wares include both white and red wares and are also differentially represented at the sites. Site 1341 has 4.9 percent white wares and 15.5 percent red wares. Site 1343 has 7.0 percent white wares and 10.2 percent red wares. Site 1358 has 3.6 percent white wares and 7.5 percent red wares. It is unclear why Site 1343 has higher proportions of white ware sherds. Clearly, red ware decorated vessels dominate in the late Pueblo I contexts.

Looking at potential distinctions in vessel forms, counts of bowls and jars for white ware, red ware, and combined decorated totals were used. In general, decorated bowls constitute 60.5 percent of all decorated wares at Site 1341, 65.2 percent at Site 1343, and 74.5 percent at Site 1358. While the overwhelming majority of white ware types are from bowls, particularly at Sites 1343 and 1358, red wares strongly contrast and are much more likely to occur in both bowl and jar forms. Red ware jars are much more common, comprising 45.5 percent of the red wares at Site 1341, 56.5 percent of the red wares are jar forms at Site 1343, and jars represent 35.1 percent of the red wares at 1358.

Although it is not possible to make conclusive interpretive statements at this juncture, these patterns are intriguing. White wares are almost exclusively bowl forms at these sites suggesting similar use patterns between the sites for the most part. The exception is Site 1341 where a number of unclassified early white ware jar sherds were noted. In contrast to the white wares, red wares differ in the representation of bowl and jar forms. It appears that red wares may

function differently than white wares in the societal context much the same way that modern day fine china differs from the everyday dishes. By the late Pueblo I, red wares clearly outnumber white wares occurring in two to three times the frequencies. They are also most strongly represented at the larger, more complex and influential sites.

Site 1341 is the largest site late Pueblo I period in Allen Canyon. It may be that this site participated to a greater extent in community activities such as ritual exchange and feasting, or ceremonial activities although there is no evidence of ceremonial features. The possible oversized pit structure at Site 1358 may also have been an integrative feature used for community social and ritual activities. Although speculative, the higher frequencies of red ware bowls found at 1341 and 1358 may signal feasting behaviors and community integrating activities. Additional support for the notion that Site 1341 may have functioned to as a community center may be found in the larger numbers of white and red ware jars found at Site 1341 than Site 1358 may signal substantial quantities of foods may have been transported to the site for these activities. Likewise, the higher proportion of decorated jars at the smaller, satellite Site 1343 adjacent to the main village (1341) could be evidence of food preparation and transport to the larger site hosting community activities. A similar pattern and relationship was observed in the central portion of Allen Canyon between adjacent late Pueblo I sites (citation).

Stone Artifacts

Flaked stone debitage and the tools are represented at sites in substantial quantities. These artifacts provide information on the kinds of activities conducted at sites. Stone tools were used in a variety of ways and provide information on resource procurement and processing, craft production, and other activities and provide important indicators of what activities were conducted at each of the sites in the study area. The data used here includes artifacts documented during in-field analysis at Sites 1341, 1343, and 1358, but does not include collections made from these sites during the 1970s. Community sites tool information is derived from information provided on the site forms. While this is not an ideal dataset, it does provide some insights into the kinds of activities represented at sites in the study area.

Stone tools provide a direct measure of activities conducted at sites, but their representation is strongly affected by complex patterns of behavior. Some tools may be used in conjunction with one another or the same tool may be important to a variety of tasks and not a singular activity. Additionally, tools may be removed from activity locations or sites for use at other locations, or reworked into different forms. Additionally, collections made from sites by casual visitors or previous archaeologists may have removed portions of the tool assemblages. These cautions being said, tools represented at sites in the study area provide indicators of the activities conducted at those locations. Table 8 depicts examples of some relationships between activities and the tools used to perform the tasks.

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Table 8. Lithic tool sets and their function.

Provisional Functional Interpretation	Expected Activity Sets	Expected Depositional Sets
Lithic Procurement	Testing and procurement of stone materials	Tested cobbles, cores, hammerstones, numerous cortical flakes, angular debris, no features
Lithic Production	Core reduction and tool production	Cores, bifaces, hammerstones, flake tools, abundant waste flakes
Faunal procurement and processing	Killing/Butchering animals	Projectile points, bifaces, chopper/unifaces, scrapers, flake tools
Plant Processing	Milling seeds and grains	Manos, Metates, mortars, pestles, hammerstones
Craft production	Fiber production, jewelry production, wooden or bone implement manufacture, weaving, ceramic production	Core tools, hammerstones, scrapers, drills, knives, abraders, spindle whorls, loom weights, polishing stones
Tool maintenance	Repair of implements, rebuilding, sharpening, and replacement	Drills, axes, pecking stones, utilized flakes

The tools indicate a variety of activities are represented at the sites in the study area (Table 9). These include lithic production, resource processing, and craft production; however, these activities are differentially represented at sites suggesting differences in site function. Clearly, the larger habitation sites have a larger number and wider array of stone tools represented than the less substantial sites. This pattern is not unexpected, given the nature of the sedentary settlement system employed by Ancestral Puebloans. In such a system, the population resides in permanent residential sites and generally brings most resources to the residences where they are used. Logistical sites can also be expected, such as sites established to tend distant fields, temporarily store products, procure and initial process stone, game, and other resources. These latter sites obviously would not reflect the full range of potential activities that one would expect to occur at residential sites. Activities conducted at community sites vary, as reflected by the differential representation of tools at the sites.

Basketmaker III-early Pueblo I Period

Seven sites (Sites 1348, 1352, 1354, 1367, 2639, and 2649) have components dated to the Basketmaker III-early Pueblo I period. Residential functions were indicated at Sites 1348, 2639, and 2649. Site 1348 has strong indications of hunting and plant processing activities reflected by substantial numbers of projectile points, utilized flakes, knives, a scraper, and grooved stone (shaft straightener?). The inordinately large number of utilized flakes is likely to reflect error on the part of the archaeologists, as this type is consistently overestimated by field archaeologists mistaking edge damage for use wear. The drill, scraper, grooved stone, and denticulate potentially reflect craft activities at the site. Pottery production may be indicated by the polishing stone. Site 2639 has 3 bifaces, 10 manos, and 1 metate suggesting strong orientations toward plant processing and weak indications of game processing. Site 2649 has only 2 projectile points and 2 metates represented. Again, food processing activities related to plant and animal products are inferred. Basketmaker III economies generally reflect strong reliance on both plant and animal foods in the diet.

GARDENERS AND GATEKEEPERS

Table 9. Stone tools recorded at the sites in the southern Allen Canyon study area.

Site	Hammerstone	Core	Biface	Knife	Drill	Utilized Flake	Projectile Point	Chopper	Scraper	Mano	Metate	Pecking Stone	Polishing Stone	Denticulate	Axe	Maul	Unknown Groundstone	Other	Total
1341	20 13.7	30 20.5	8 5.5	2 1.4	1 0.6	11 7.5	5 3.4	1 0.6	7 4.7	28 19.2	12 8.2	13 8.9	6 4.1	1 0.6	1 0.6	0	0	0	146
1343	4 6.0	14 20.9	6 9.0	1 1.5	0	4 6.0	9 13.4	0	1 1.5	11	9 13.4	6 9.0	0	1 1.5	0	1 1.5	0	0	67
1344	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1347	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1348	0	0	0	5 9.4	1 1.9	31 5.9	10 18.9	0	1 1.9	3 5.7	0	0	1 1.9	0	0	0	0	1 1.9	53
1350	4 57.1	2 28.6	0	0	0	0	0	0	0	1 14.3	0	0	0	0	0	0	0	0	7
1352	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1353	3 9.1	0	0	3 9.1	0	20 60.6	3 9.1	0	1 3.0	2 6.1	0	0	0	0	0	0	0	1 3.0	33
1354	1 8.3	0	0	4 33.4	0	6 50.0	0	0	1 8.3	0	0	0	0	0	0	0	0	0	12
1355	8 20.5	0	0	0	1 2.6	21 53.8	2 5.1	2 5.1	0	3 7.7	0	0	0	0	1	5.1	0	0	38
1357	1 8.3	0	0	1 8.3	0	6 50.0	0	1 8.3	1 8.3	1 8.3	0	0	1 8.3	0	0	0	0	0	12
1358	2 9.5	3 14.3	0	0	0	11 52.4	2 9.5	0	2 9.5	0	0	0	0	0	1 4.8	0	0	0	21
1360	1 12.5	1 12.5	0	0	0	3 37.5	1 12.5	0	2 25.0	0	0	0	0	0	0	0	0	0	8
1363	0	0	0	0	0	3 75.0	1 25.0	0	0	0	0	0	0	0	0	0	0	0	4
1367	0	0	0	0	0	4 80.0	1 20.0	0	0	0	0	0	0	0	0	0	0	0	5
1371	1 33.3	0	0	0	0	1 33.3	0	0	1 33.3	0	0	0	0	0	0	0	0	0	3
1373	0	1 10.0	0	0	0	4 40.0	0	0	0	1 10.0	2 20.0	0	0	0	0	0	0	2 20.0	10
2639	0	0	3 20.0	1 6.7	0	0	0	0	0	10 66.6	1 6.7	0	0	0	0	0	0	0	15
2649	0	0	0	0	0	0	2 50.0	0	0	0	2 50.0	0	0	0	0	0	0	0	4

Site 1354 appears to be an isolated storage site containing 4 cists. Tools included 1 hammerstone, 4 knives, 6 utilized flakes, and 1 scraper. These tools may indicate lithic reduction and game processing were the primary tasks performed at the site.

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Two artifact scatters (Sites 1352 and 1367) date to the Basketmaker III-early Pueblo I period. Site 1352 has no tools and Site 1367 has only 4 utilized flakes and 1 projectile point. A game procurement function may be implied for the site.

Early-Middle Pueblo I Period

Early-Middle Pueblo I period sites include 1341, 1343, 1353, 1357, 1363, and 1371. Tools cannot specifically be associated with the early-to-middle Pueblo I context at Sites 1341 and 1343. Since these sites have a dominant late Pueblo I period occupation the tools from these sites are discussed below. Site 1353 is very weakly associated with this period of occupation. It is an artifact scatter that lacks any constructed features. Site 1353 appears related to plant and animal procurement and processing.

Site 1357 contains a single-room surface structure with associated trash. Lithic reduction activities are reflected by the presence of a hammerstone and waste flakes. Faunal processing may be reflected by utilized flakes, a knife, chopper, and scraper. These tools are used in dismemberment and hide processing activities. A mano suggests the processing of plant foods. Pottery production may be indicated by the polishing stone.

Site 1363 consists of a potential single-room structure and two cists. The site form documents only 18 ceramic, four tools, and 49 waste flakes. The tools include one projectile point and 3 utilized flakes suggesting game procurement and processing activities.

The only other site in the community that exhibits an early-to-middle Pueblo I period component is Site 1371. This site contains a single-room surface structure and one slab-lined cist. The sparse artifact assemblage (n=122) and absence of midden development associated with the structure suggest a short-term use. The site has only three tools, a hammerstone, a utilized flake, and a scraper. Lithic reduction and faunal processing or possibly tool maintenance and repair are weakly inferred.

The contrast between Site 1357, 1363, and 1371 may highlight functional differences between these sites. Though similar with respect to their containing a single-room structure, Site 1357 exhibits a wider range of tools and activities than Sites 1363 and 1371. This is consistent with a residential function for the site. The limited repertoire of ceramic artifacts and stone tools present at Sites 1363 and 1371 indicates a more limited range of activities consistent with a field house/farmstead interpretation rather than the more substantial small residential site, Site 1357.

Site 1353 is an artifact scatter lacking constructed features. The site contains 3 hammerstones, 3 knives, 20 utilized flakes, 3 projectile points, a scraper, a notched cutting tool, and 2 manos. These tools indicate lithic reduction, game procurement and processing, and plant processing were conducted at the site. Interestingly, the number and diversity of tools present at this artifact scatter site far exceeds that of other artifact scatters in the study area and is more reminiscent of a habitation site than a limited activity site.

Late Pueblo I Period

Late Pueblo I period sites includes 10 sites (1341, 1343, 1344, 1347, 1348, 1350, 1355, 1358, 1360, 1373) in the southern Allen Canyon area. As discussed above, the post-A.D. 880 period witnessed the full development of the small village (Site 1341). Site 1341 exhibits the largest number and diversity of tools. The abundant hammerstones and cores in the assemblage are indicative of stone tool production at the site. Faunal procurement and processing activities are reflected by projectile points, bifaces, knives, choppers, and scrapers. It should be noted that a number of projectile points were collected from the site in the 1970s and these activities may be underrepresented. Plant processing is indicated by manos, metates, and pecking stones. The latter tool type is commonly used to rough up smoothed and polished surfaces of grinding implements to improve efficiency. Though not quantified here, a number of the manos are well-worn and exhibit thin, triangular cross-sections indicating substantial use and, similarly, a number of metates exhibit very pronounced and deep troughs indicative of heavy use. Craft production is likely indicated by hammerstones, pecking stones, drills, scrapers, and other tools. Cut and shaped bone was observed at the site. Polishing stones suggest on-site pottery production.

At Site 1343, there are strong indications of food procurement and processing activities. The frequency of projectile points, manos, and metates suggest an emphasis on the procurement of game and plant processing activities. Of interest is the relative proportion of ground stone in the assemblage for such a small occupation. Although lithic tool reduction is an important activity at the site, craft production activities are not represented with any strength as seen at the larger site, Site 1341.

At Site 1358, fewer tools are represented than the other two sites. Important activities included lithic tool production and plant processing. Weak evidence of hunting and craft production activities is indicated.

The other multiple-room habitations (1348 and 1360) occupied during this period include Sites 1348 and 1360. The multiple-room residential site, Site 1360, as discussed above, contains a unit pueblo with 6-10 rooms, a substantial pit structure depression, and a well-developed midden suggesting long-term habitation. The stone tool assemblage shows evidence of hunting and processing of game resources. Lithic reduction is also evident. The absence of plant processing is anomalous, particularly for a moderately large, long term occupation. Next to Sites 1341 and 1358, this site is the largest and most permanent residential site in the southern Allen Canyon area. It is likely that field error is the source of this anomaly, but updated information is certainly needed from the site.

As discussed above, Site 1348 has strong indications of hunting and plant processing activities with lesser evidence for craft activities. The 2013 field observations indicated that the small structure dating to the Pueblo I period and containing five rooms or less was not associated with a midden or substantial amounts of trash. In fact, no Pueblo I ceramics were observed during the visit. The 15 or so datable ceramics in the EOC collections appear to be the only clearly associated Pueblo I artifacts from this component. With this in mind, it is likely that the Basketmaker III component is primarily responsible for the bulk of the tool assemblage and a

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seasonal use of this site during the late Pueblo I period is likely. The small assemblage and minimal activity orientation suggests the site may represent a short-term, seasonal use for the site and a farmstead or field-house function is inferred.

Two single-room habitations (Sites 1355 and 1373) are represented during this period. Site 1355 has a single-room surface structure and associated artifact scatter containing 135 ceramic and 78 lithic artifacts. At Site 1355, stone tools reflect a fairly robust set of activities. Eight hammerstones and waste flakes are indicative of lithic reduction activities. Faunal procurement and processing are indicated by the projectile points, utilized flakes, and choppers. Plant processing is indicated by three manos. Craft and other activities are indicated by the drill, utilized flakes choppers, and axes. Feature and artifact data are indicative of a short-term residential function for the site.

Site 1373 has a single-room surface structure and 2 cists. The associated artifact scatter contains only 55 ceramic and 50 lithic artifacts. At Site 1373, one core, four utilized flakes, one mano, and two metates are present. These tools reflect minimal lithic reduction and plant processing activities. The small assemblage and minimal activity orientation suggests the site may represent a short-term, seasonal use for the site and a farmstead or field-house function is inferred.

Four sites (Sites 1344, 1350, 1354, 1361) as discussed above, are isolated storage sites oriented to food storage. No tools are present at Site 1344. Hammerstones and cores indicate lithic reduction at Sites 1350, 1354, and 1361. A projectile point found at Site 1361 and knives, utilized flakes, and scrapers found at Sites 1354 and 1361 may indicate game procurement and processing activities at these sites. One site, Site 1350, has a mano present indicating plant processing.

Finally, Site 1347 bears special mention. No lithic tools are associated with the site. It has been argued that the positioning of the site on a high ridge at the confluence of two prominent canyons and overlooking the village site, Site 1341, indicate the site primarily functioned as an observation site. The absence of stone tools and limited numbers of gray ware jar sherds at the site suggest the site did not have any particularly resource emphasis and may support this postulation.

ECONOMY AND SUBSISTENCE

A central organizing aspect of any settlement system revolves around the economy and subsistence system of a particular population. We can expect very different systems of mobility, site and feature types, artifacts, and other aspects of a prehistoric settlement system with differences in the economy and subsistence system employed. Hunting and gathering wild plant foods and faunal resources requires a great deal of mobility, material portability, and small group size that contrasts strongly with more sedentary agricultural groups that construct more substantial features and settlements, invest heavily in material goods, store food, and increase the number of people that can live together. It is well-known in the Southwest that Ancestral Puebloan people generally based their economy and subsistence on the agricultural production, but we now recognize that these systems vary greatly over time and space in many ways. Changes in natural and social environments result in changes in mobility, abandonments, reliance on different foods, change material exchange networks, social interaction, and many

aspects of life. The economy and subsistence system of the sites is explored using data derived for features and artifacts.

As discussed in the preceding section, the range of activities represented at the sites varies indicating different functions for sites within the overall settlement system. It should be no surprise that the key position of agricultural goods, such as corn, beans, and squash, is evident at all the sites investigated within the study area. Plant processing tools and the abundance of storage features, such as slab-lined cists, are indicative of this reliance. Clearly the importance of agricultural goods was well established in the Basketmaker III period, as evidenced by the numbers of slab-lined storage features at sites dating to the Basketmaker III-early Pueblo I period. These features remain common in later Pueblo I times and it is highly likely that an undetermined number of rooms in surface structures were also devoted to food storage, particularly agricultural products.

The contribution of wild plant and animal foods should not be underappreciated; however, the contribution of the former is difficult to measure given the current data. Beginning in Basketmaker III times, as evident Site 1348, 1367, and 2649, there is an emphasis on game procurement and processing at the sites. Although hunting continued to play a role in subsistence during Pueblo I times, the data seem to indicate a decrease in the reliance on game.

There does not seem to be evidence supporting specialized production of either crafts or agricultural products at these sites. Unlike other areas of the Forest where check dams and terraces and extensive networks of field houses are associated with Pueblo I communities, there is no evidence of these developments within the study area in association with Pueblo I sites. Not only are the populations relatively small, but it is likely that the topography and climate in the canyon was not necessarily conducive to agricultural intensification and large population size.

SETTLEMENT PATTERNS

Previous studies in Allen Canyon identified and recorded 269 sites (DeBloois 1975; DeBloois and Green 1978; Green 1971). According to site forms in the Heritage site database, these sites date between the Archaic period up through the Pueblo III and historic time frames. Of these, 148 sites may be affiliated with the Pueblo I period; however, many have multiple temporal components potentially represented. As best as can be derived from the site records, 46 sites date solely to the Pueblo I period, while 73 sites date to the Basketmaker III and Pueblo I periods, 49 sites have Pueblo I and Pueblo II period components, and 9 Pueblo I sites have a Pueblo III component.

In a recent study of the Allen Canyon area, Pueblo I sites were found to be distributed in four general areas of the canyon (see Figure 2 above). On the basis of data gleaned from the Heritage records, the Pueblo I sites in different portions of the canyon were differentiated from one another in terms of location, function, and site types and were generally "clustered" around larger, multiple-residence habitations. These Pueblo I site "clusters" in the Allen Canyon study area appears to be typified by large hamlets, discussed here as large habitation sites, consisting of

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multiple-room structures and pit structures surrounded by single-room and/or moderate-size habitations, storage and agricultural features, and limited activity areas.

Intensive study of Pueblo I period sites in the central portion of Allen Canyon indicated the sites represent a series of moderately large residential sites along with smaller seasonally used sites that represent an occupation that changes through time in size and content (Irwin and Freels 2012). Founded in the Basketmaker III to early Pueblo I period, the occupation shifts spatially and develops a greater degree of complexity culminating in the concentration of the late Pueblo I population into two sites. The data indicated evidence for changing patterns of social interaction between early and late Pueblo I people, and possible functional differentiation in activities and roles of sites in the settlement system by the late A.D. 800s.

This study concentrates on the southern portion of Allen Canyon and investigates the nature and development of the Pueblo I community. The Heritage database indicates that 19 sites potentially date to the Pueblo I period including two large residential sites, three isolated storage features, five single-room habitations, one small habitation, four moderate-size habitations, and four limited activity areas. Of the nineteen sites found in the Heritage database, nine have Basketmaker III and Pueblo I period components and four sites have Pueblo I and Pueblo II period components.

This study has elicited new information for sites in the southern Allen Canyon area. The temporal affiliations of these sites has been further refined and functional aspects of the sites have been explored. The following discussion looks at how these temporal and functional patterns for the sites relate to the overall settlement pattern.

As seen with the previous study of the Pueblo I period in the central portion of Allen Canyon (Irwin and Freels 2012), the sites in the southern portion of the canyon represent different temporal and functional expressions that reflect changes in Ancestral Puebloan community in this portion of Allen Canyon.

Basketmaker III-Early Pueblo I

Seven sites (Sites 1348, 1352, 1354, 1367, 2639, and 2649) have components dated to the Basketmaker III-early Pueblo I period. Residential functions were indicated at Sites 1348, 2639, and 2649. Site 1354 is an isolated storage site with four cists. Sites 1352 and 1367 are artifact scatters.

With the exception of Sites 2639 and 2649, residential sites located on low ridges east of and overlooking Allen Canyon wash, the Basketmaker III-Early Pueblo I sites are concentrated along high benches along the west side of Allen Canyon to the south of Chippean Canyon. Site 1348, a residential site, is the farthest north of these sites and is situated a short ways from the confluence.

Early-Middle Pueblo I

Early-Middle Pueblo I period sites include 1341, 1343, 1353, 1357, 1363, and 1371. The large village, Site 1341, and the satellite site, Site 1343, are initially occupied during this period. It is not possible at this juncture to address the size and complexity of the village site or its status within the community. Few other sites date to this period. The data indicate that one small, short-term residential site, Site 1357, is found in the southern portion of the study area where the entrenched canyon begins to open up. The site occupies a low bench overlooking the creek. Two additional sites were dated to the early-to-middle Pueblo I period. Sites 1363 and 1371 are field houses located up the tributary drainage in the south near Site 1357. These sites indicate the establishment of logistical sites related to the expansion and differentiation of agricultural practices and the importance of these foods in the subsistence and economic system.

Late Pueblo I

Late Pueblo I period sites includes 10 sites (1341, 1343, 1344, 1347, 1348, 1350, 1355, 1358, 1360, and 1373) in the southern Allen Canyon area. The late Pueblo I period witnessed the full development of the small village site, Site 1341. At its height, Site 1341 contained a large complex with at least 20-30 surface rooms, 6-7 pit structures, individual surface rooms, terraces, check dams, storage features, middens, and other features. Immediately adjacent to the village is Site 1343. This moderate-sized residential site has strong indications of subsistence processing and may have supported the larger site in community-functions. Site 1294, an innocuous artifact scatter, and Site 1344, an isolated storage site, are also closely associated with Site 1341.

Sites 1341 and 1343 form the northern extent of the southern Allen Canyon community. Site 1341 is situated on a high bench overlooking the confluence of a prominent tributary canyon with Allen Canyon. Immediately across the tributary Canyon on a high ridge with a commanding view of both canyons is Site 1347, inferred to be an observation site. These sites are situated in a place where the canyon is well-entrenched. As such, Site 1341 and the observation site (Site 1347) may have had a "gatekeeper" sort of function, moderating access to the Allen Canyon community further up the canyon. Elsewhere on the Forest, observation sites and other sites appear to be positioned at points that can observe or control access to an area (Donald Irwin, District Archaeologist, personal observation).

Site 1358, a large residential site is located approximately one-half mile south of Site 1341 where the canyon becomes more open and less entrenched. The site consists of a large, multiple-room masonry and jacal structure containing at least 10-20 rooms, a large pit structure, isolated rooms, storage cists, and a substantial midden. This site forms the nexus of the late Pueblo I community in the southern portion of the study area. A second moderate-sized residential site, Site 1360, is located nearby. Site 1360 contains a unit pueblo with 6-10 rooms, a substantial pit structure depression, and a well-developed midden suggesting long-term habitation. A small fieldhouse/farmstead and an isolated food storage site are also found in this portion of the canyon presumably exploiting a prominent tributary for agricultural production.

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A number of smaller, less substantial sites are found between these two areas with larger, long-term settlements. These include a short-term, single-room residential site (Site 1355), a moderate-sized seasonally used farmstead (Site 1348), and two isolated storage sites (1350 and 1354).

From the preceding discussion, we see evidence for a number of changes in the settlement system that are of importance to understanding the changing Pueblo I community. From an initial population of as few as three small families in the Basketmaker III period, we see little potential growth in the population in the early Pueblo I period. However, the settlement system appears to signal a shift from a mixed subsistence regime based on these small families to a slightly more differentiated system based to a larger degree on agricultural production, as evidence by the addition of field houses/farmsteads to the settlement system. By the Late Pueblo I period a great deal of change is noteworthy. The population apparently grows, or at least coalesces, and larger sites appear on the landscape. Further differentiation occurs and the settlement system involves multiple tiers of residential sites of differing sizes and logistical sites, such as field house/farmsteads and isolated storage sites.

SOCIAL INTERACTION

Relative dating has been used to place individual sites or site use episodes within a temporal framework, and identify the activities that occur at individual sites. Here, we explore the relation of sites within the greater Pueblo I community discussed in the preceding section.

Exchange

Interaction between groups may be indicated by exchange of utilitarian or non-utilitarian items. Exchange of these utilitarian and non-utilitarian items may have provided means for securing needed resources for subsistence, as well as securing partners for marriage, religious purposes, and maintaining political relationships and networks.

In the case of this study, there are no obvious specialized production activities evident to suggest any particular emphasis on exchange. There are small quantities of non-local stone, such as Brushy Basin chert, Morrison siltstone, and obsidian, represented at the updated sites. A *glycymerus* shell bracelet fragment was found at Site 1343. These items appear to best fit a down the line sort of exchange model rather than any particular economic emphasis on exchange. Probably the most compelling evidence for exchange centers on the decorated ceramics evident at the sites.

It is generally accepted by most archaeologists that utility wares are primarily locally produced, whereas trade in decorated ceramic types is common in the region. Previous research has indicated that San Juan Red Wares produced in southeastern Utah and these ceramics were being traded into the Mesa Verde core area in southwestern Colorado during the Pueblo I period (Blinman and Wilson 1988). It has also been suggested that San Juan White Wares were primarily produced in the Mesa Verde core area and traded westward into Utah. The exception to this is the localized production of White Mesa Black-on-white in southeastern Utah (Hurst et al. 1985).

Locally produced gray wares dominate the site assemblages (see Table 4 above). With the exception of a small number of Chapin Black-on-white and Piedra Black-on-white sherds that most likely derive from the Mesa Verde core area to the east in Colorado, White Mesa Black-on-white is the most common white ware present at sites. This suggests that with the exception of low levels of trade involving white wares during the early and middle part of the Pueblo I period, the Pueblo I inhabitants of the study area relied on more localized trade networks.

San Juan Red Wares are well-represented in the study area. Although frequencies of these wares occur in relatively low frequency at the smaller community sites, they are well represented at the late Pueblo I Sites 1341, 1343, and 1358. If we consider the Pueblo I period assemblages at these sites (eliminating any Pueblo II era types), San Juan Red Wares comprise 15.5 percent of the Site 1341 ceramic assemblage, 10.2 percent of the ceramics at Site 1343, and 7.5 percent of the assemblage at Site 1358. Taken together, data on San Juan Red Wares and White Mesa Black-on-white indicate a reliance on southeastern Utah exchange networks to obtain decorated ceramics by the late Pueblo I period.

Social Organization and Integration

Studies of social organization and interaction form the basis to understanding how social groups organized and integrated themselves at local and regional levels, and how this organization changed through time. Recent efforts to examine the Early Pueblo Period in the Northern Southwest have demonstrated many new insights into the Pueblo I period (Wilshusen, Schachner, and Allison 2012). One of the most important insights regarding the Pueblo I period is that “one size does not fit all” and that different developmental trajectories can be demonstrated across the broad expanse of the greater Four Corners region.

Earlier archaeological studies have demonstrated the presence of in excess of 1200 Pueblo I period sites on the Monticello District of the Manti-La Sal National Forest (e.g. DeBloois 1975; DeBloois and Green 1978; Green 1971). Early portrayal of the Pueblo I period occupation on the Forest described it as comprised of small, seasonally occupied sites. More recent work on the District indicated that a greater degree of complexity exists than previously described. In portions of the Monticello District, small villages with associated multiple and single-residence households, field houses, storage sites, agricultural complexes, and other sites have been identified that suggest a higher order of social complexity existed on the Forest during the Pueblo I period (e.g. Hurst et al; Irwin et al. 2000).

At the outset of the Allen Canyon study, Heritage site records indicate 148 sites may be affiliated with the Pueblo I period in the Allen Canyon area. A recent study of the Allen Canyon area, Pueblo I sites were found to be distributed in four general areas of the canyon (Irwin and Freels 2012). On the basis of data gleaned from the Heritage records, the Pueblo I sites in different portions of the canyon were differentiated from one another in terms of location, function, and site types and were generally clustered around larger, multiple-residence habitations (see Figure 2).

This study of the Pueblo I community in the southern portion of Allen Canyon and a previous study conducted in the middle portion of Allen Canyon (Irwin and Freels 2012) have provided

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important information on the development and nature of the Pueblo I community in this part of the Forest.

These studies indicate the early Pueblo I community prior to A.D. 850 was comprised of a dispersed settlement system of small and moderate-sized household residences that were widely distributed throughout the canyon. This study indicates an increased reliance on agriculture in site economies and the addition of field house/farmsteads into the settlement system. Exchange networks with the Mesa Verde core area were active and the movement of white wares into the Allen Canyon community is evident. Social integration may have been achieved through the construction of a great kiva in the eastern Allen Canyon study area. In the eastern area, Site 763 contains three large depressions in excess of 10 m diameter. Though not the focus of our study, field observations of the eastern area suggest that the potential great kivas are isolated with no associated structures. The great kiva site is situated within a surrounding community of sites that are generally small with fewer than five or six rooms. Observations suggest the sites represent pre-A.D. 850 era occupations; however, additional fieldwork is needed to explore the timing and nature of the great kiva site (Site 763) and surrounding community.

Sometime around the mid-A.D. 800s, the Pueblo I community begins to change. By A.D. 880, a small village (Site 1341) emerges on the landscape in the southern Allen Canyon area, and large multiple-household residential sites are established along with medium-sized and smaller residential sites in the southern and central Allen Canyon areas (Figure 13). Further differentiation of the settlement system appears to take place in the southern area with the addition of small residential sites, field house/farmsteads, and isolated storage features.

Interaction spheres appear to shift during the late A.D. 800s. Exchange patterns indicate a reliance on more localized trade networks with little or no evidence of exchange with the Eastern Mesa Verde area. White Mesa Black-on-white and San Juan Red Ware are the only decorated ceramics represented during the late Pueblo I period at the southern Allen Canyon sites.

Wilshusen et al. (2012a) discusses two forms of villages that develop in the Central Mesa Verde area during the A.D. 810-880 period. One form consists of linear arrangements of roomblocks with associated pit structures that formed a village-scale settlement, such as Grass Mesa Village in the Dolores area. He indicates that these likely formed around great kivas that later fell into disuse leaving these villages with no ceremonial center (Wilshusen et al. 2012a: 27). In contrast, the second form village consists of one or more large U-shaped "great houses" within the village layout, such as seen at McPhee Village in the Dolores area. A number of these latter forms of villages have great kivas or oversized pit structures that indicate that the village becomes the center of both domestic and ceremonial life during the A.D. 800s.

The village (Site 1341) and large residential sites, Site 1358 in the southern area, and Site 719 in the central area, appear to become the focus of community integrating and ceremonial functions. This small village is more similar to Wilshusen's Grass Mesa style of village, but to a much smaller scale. As mentioned above, the isolated great kiva site (Site 763) found in the eastern Allen Canyon area apparently integrated the earlier dispersed Pueblo I community prior to the

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mid-A.D. 800s. No evidence of community architecture, such as the earlier great kivas found in the eastern Allen Canyon area, was found in association with the late Pueblo I community in the south and central Allen Canyon areas. No evidence was found that an oversized pit structure was present at the village site, Site 1341; however, it is interesting that the large multiple-household residential sites, Site 1358 in the southern area and Site 719 in the central area, have 10 m diameter pit structure depressions that may have served as integrating features.

Despite the absence of community architecture at Site 1341, the relative representation of decorated vessels in the assemblage and proportions of vessel forms suggest that feasting associated with ceremonial and community activities was likely. Site 1341 has a satellite site (Site 1343) immediately adjacent to it with a small number of surface rooms and a pit structure, but a noteworthy assemblage of artifacts and features indicative of food storage and preparation. The percentage of red ware jars is elevated in comparison to bowl forms at this site potentially suggesting preparation and transport of food to the village in support of community gatherings. A similar relationship was noted in the central area of Allen Canyon between Sites 719 and 727 during the late Pueblo I period. Further data are needed to investigate these propositions further.

Regionally, we see the developmental trajectories and expressions of the Pueblo I era community are diverse and differing in timing, size, and complexity. These aspects are certainly related to changes taking place in Pueblo I society and the roles of ritual and leadership (e.g. Wilshusen et al. 2012b), population movements and growth (e.g., Allison et al. 2012; Wilshusen et al. 2012c), and other factors. On the Monticello Ranger District of the Manti-La Sal National Forest, the Pueblo I period community remains poorly understood and understudied; however, some progress is being made toward understanding this occupation and to relate it to the emerging picture of Pueblo I life on a broader regional scale.

On the Forest itself, there appears to be variability in the timing and nature of Pueblo I village formation and community integration. As early as the early to middle A.D. 800s, attempts at village formation are suggested, particularly at the Pillars, and possibly Dave's World and the Hammond Good House in the greater Milk Ranch area. Pillars, in particular, has a large population in residence and is the largest Pueblo I era site known on the Forest. This village certainly differs in size and layout from the better known villages that formed in McPhee Reservoir area in Colorado.

The Pueblo I community in the upper South Cottonwood Wash area, in our opinion, is potentially later than the Milk Ranch Point occupation and likely dates to the A.D. 850 to 900 era. Here, the late Pueblo I community formed around two small villages with surrounding single and multiple-residence hamlets, field houses/farmsteads, isolated storage areas, and agricultural facilities (Irwin et al. 2000). Many areas exhibit numerous storage features and evidence of check dams and terraces suggesting an intensification of agricultural production. These communities do not have clear indications of community integrating great kivas, but a plaza with an over-size pit structure at Laura Pueblo suggests it may have served that function (Chuiyka and Fetterman 2002). The site plan of Laura Pueblo consists of a large, L-shaped roomblock with a massive curvilinear terrace bounding a levelled plaza area that lends an overall D-shape to the site. It is unclear if the massive 2 m high terrace containing large amounts of rubble contains additional rooms or is simply a retaining wall. Also present in the upper

Cottonwood area is Cottonwood Condo. The Cottonwood Condo site plan is U-shaped with 20 or more rooms suggested with a two-story section of rooms in the back, center portion of the roomblock. This site also dates to the Late Pueblo I period. At this juncture, no evidence has been produced to demonstrate the presence of a community integrating feature, such as an oversized pit structure and further work is needed to fully understand this site. Though smaller, these two sites in the upper South Cottonwood communities are similar to the U-shaped proto-great house architecture described by Wilshusen (2012a), such as the McPhee Village or early great house architecture described in Chaco Canyon (Windes and Van Dyke 2012).

The late Pueblo I community in Allen Canyon differs from both Milk Ranch Point and upper Cottonwood areas. Although study of the Allen Canyon Pueblo I era sites is incomplete, a number of insights, discussed above, have emerged. To summarize, there is evidence in the canyon to suggest an early, pre-A.D. 850 community composed of dispersed small and medium-sized residences was present. This community was likely integrated through ceremonial and social activities conducted at the isolated great kiva site (Site 763) in the eastern area. By the late Pueblo I period, the community reorganizes and a small village (Site 1341) appears in the southern portion of the canyon. The village lacks community architecture, but some evidence may point to communal feasting associated with ceremonial and social gatherings. The moderately large, multiple household residences also emerge along with small numbers of medium and small residences. Of interest, and the need for further work, is the presence of 10 m diameter pit structure depressions at the large residential sites that suggest some sort of participation in ritual and community functions. Field houses and isolated storage facilities are also found suggesting exploitation of additional areas for agricultural production. The population is relatively small and the small, linearly arranged village starkly contrasts with the small villages found in the upper Cottonwood area. At this point, we cannot explain the differences in these late A.D. 800 era communities, but differences in the ritual, political, and ethnic aspects of these communities may be implied.

CONCLUSIONS

In conclusion, the Manti-La Sal National Forest Heritage program has obtained a small grant from the Canyonlands Natural History Association (CNHA) in order to study the Pueblo I community in the southern Allen Canyon on the Monticello Ranger District. The goal of this project is to investigate the Pueblo I period Ancestral Puebloan community in Allen Canyon on the Monticello Ranger District, Manti-La Sal National Forest.

Three prominent sites in the southern Allen Canyon area have been revisited and updated as part of this project. The intensive investigation of these sites has generated new information about the sites and the nature of the Pueblo I community. Additionally, investigation of the surrounding community of Pueblo I sites using extant records and museum collections, supplemented by field observations have enabled us to investigate the timing and nature of the Pueblo I community in this portion of the community.

A number of insights have been gained through this small study, and through a previous study in the Allen Canyon area (Irwin and Freels 2012) that have important ramifications for understanding the Pueblo I community on the Forest and its potential role in the emerging

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regional picture of early Puebloan life. As with the previous Allen Canyon study, the sites in the southern Allen Canyon study area represent occupations that change through time in size and content. Some of the sites indicated in the Heritage records as potential Pueblo I sites date to the Basketmaker III period on the basis of ceramic and architectural indicators. A limited, pre-A.D. 850 era Pueblo I occupation is indicated at a small number of sites. The largest site in the southern Allen Canyon area, Site 1341, is likely to have been founded during this era, but the nature and extent of the occupation at the site is not well-understood. The majority of the sites investigated clearly date to the late Pueblo I period.

By A.D. 880, a small village (Site 1341) emerges on the landscape in the southern Allen Canyon area, and large multiple-household residential sites are established along with medium-sized and smaller residential sites in the southern Allen Canyon areas. Differentiation of the settlement system appears to take place in the southern area with the addition of small residential sites, field house/farmsteads, and isolated storage features. Interaction spheres appear to shift during the late A.D. 800s. Exchange patterns indicate a reliance on more localized trade networks with little or no evidence of exchange with the Eastern Mesa Verde area. White Mesa Black-on-white and San Juan Red Ware are the only decorated ceramics represented during the late Pueblo I period at the southern Allen Canyon sites.

The late Pueblo I community in Allen Canyon appears to differ from other areas on the Forest, such as Milk Ranch Point and upper Cottonwood areas. Although study of the Allen Canyon Pueblo I era sites is incomplete, a number of insights, discussed above, have emerged. To summarize, there is evidence in the canyon to suggest an early, pre-A.D. 850 community composed of dispersed small and medium-sized residences that was likely integrated through ceremonial and social activities conducted at the isolated great kiva site (Site 763) in the eastern area of Allen Canyon. By the late Pueblo I period, the community reorganizes and a small village (Site 1341) appears in the southern portion of the canyon. The village lacks community architecture, but some evidence may point to communal feasting associated with ceremonial and social gatherings. Other larger residential sites in the southern and central portions of the canyon may have also played important roles in ceremonial and social activities. Field houses and isolated storage facilities added to the Pueblo I settlement system suggest emphasis on agricultural production to support the population. The population is relatively small and the small, linearly arranged village starkly contrasts with the small villages found in the upper Cottonwood area. At this point, we cannot explain the differences in these late A.D. 800 era communities, but differences in the ritual, political, and ethnic aspects of these communities may be implied.

Further study of Pueblo I sites in Allen Canyon is needed to determine temporal and functional associations and explore the Pueblo I community in other portions of the canyon. Many of the sites have very weak dating available in the existing data. Few have adequate feature identification and description. This first steps in examining the Pueblo I community in Allen Canyon has provided valuable insights and serve as a basis for generating and investigating many new questions concerning the chronology, settlement and subsistence, and social interaction of Pueblo I period Ancestral Puebloans living in the canyon and on the Forest. Our

GARDENERS AND GATEKEEPERS

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