MUSEUM OF NEW MEXICO

TESTING THE PHILADELPHIA SITE

Peter Y. Bullock

OFFICE OF ARCHAEOLOGICAL STUDIES

ARCHAEOLOGY NOTES

200

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Peter Y. Bullock

with a contribution by
C. Dean Wilson

Submitted by Eric Blinman, principal investigator

ARCHAEOLOGY NOTES 200

SANTA FE 1998 NEW MEXICO

ADMINISTRATIVE SUMMARY

Between September 18 and September 22, 1995, the Office of Archaeological Studies, Museum of New Mexico, conducted limited archaeological testing at LA 5942, the Philadelphia site, near Casa Blanca, Cibola County, New Mexico. Limited testing was conducted at LA 5942 to determine the extent and importance of cultural resources within an area of planned District 6 maintenance connected with an area of unstable boulders along I-40. LA 5942 is on land owned by Laguna Pueblo.

The main portion of LA 5942 was excavated, and subsequently removed, in the 1960s during construction of I-40. The site was composed of a roomblock of five to eight rooms, one pit structure, two trash middens, and a number of extramural activity areas. The remaining portion of LA 5942 is a surface ceramic and lithic artifact scatter. It represents a temporary or short-term use area at the periphery of the substantial habitation site. No intact cultural deposits or features were found associated with site occupation or use. The portion of LA 5942 within the proposed project area was determined to have limited data potential beyond that already documented, and no further investigations are recommended.

MNM Project 41.598
NMSHTD Project No. I-40, MP 107.1, I 00040, District 6
CPRC Archaeological Survey Permit No. SP-146
BIA ARPA Permit No. BIA/AAO-95-009

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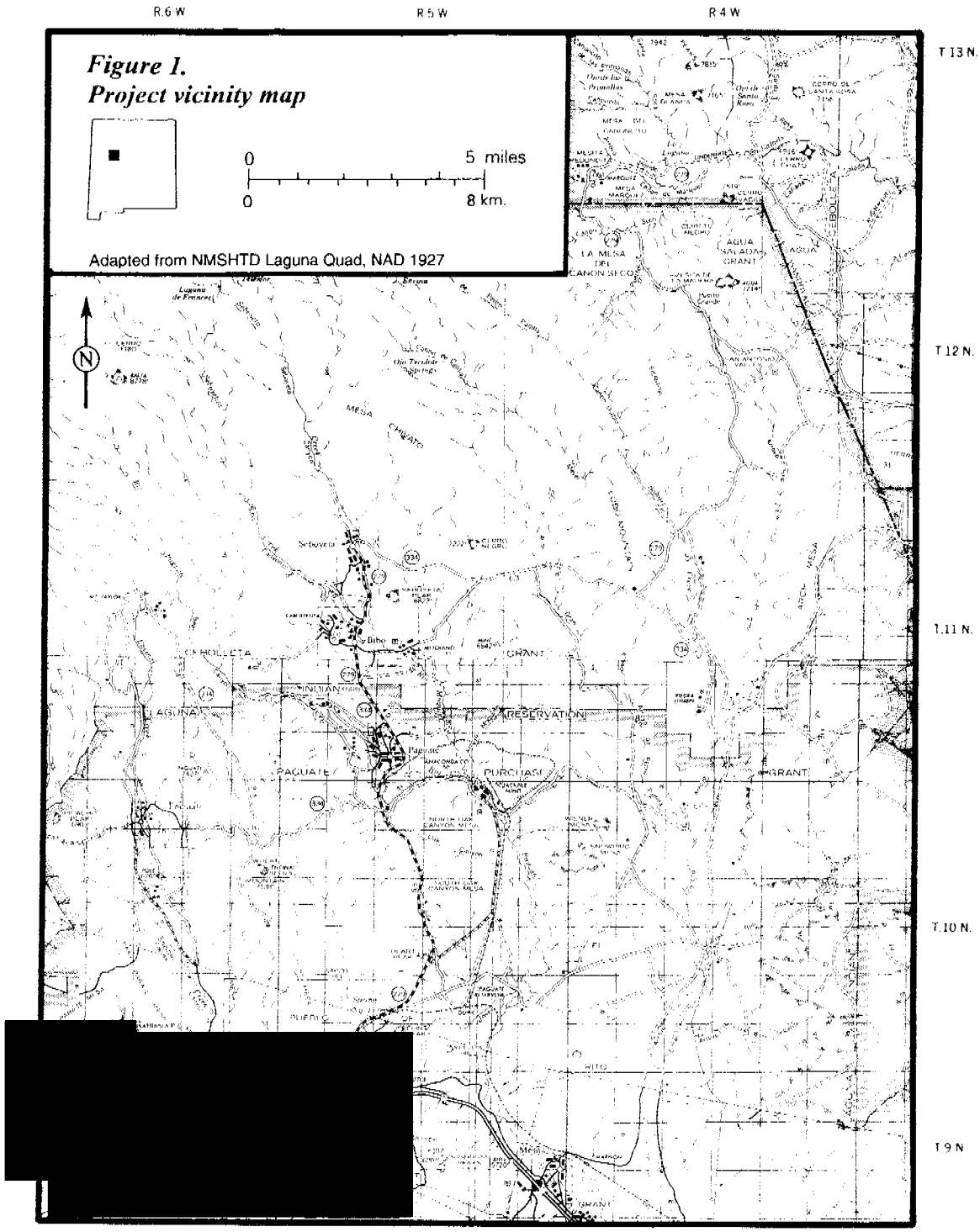
INTRODUCTION

At the request of William L. Taylor, environmental program manager, New Mexico State Highway and Transportation Department (NMSHTD), a limited testing program was conducted at LA 5942, the Philadelphia site, on I-40 near Casa Blanca, Cibola County, New Mexico (Fig. 1). LA 5942 is on Laguna Pueblo land controlled by the New Mexico State Highway and Transportation Department. Limited testing was conducted under CPRC Archaeological Survey Permit No. SP-146, Bureau of Indian Affairs Archaeological Resources Protection Act Permit No. BIA/AAO-95-009, and the written permission of Laguna Pueblo. Fieldwork was carried out between September 18 and September 22, 1995, by Peter Y. Bullock, assisted by Steven Lakatos, Raul Troxler, and Marcy Snow. Eric Blinman acted as principal investigator. Ceramic analysis was conducted by C. Dean Wilson. Maps were drafted by Robert Turner, the report was edited by Tom Ireland, and photographs were printed by Nancy Warren.

Limited testing was conducted at LA 5942 to determine the extent and importance of the portion of the site within the proposed project area. The testing was restricted to the proposed area of District 6 maintenance connected with an area of unstable boulders on the south side of I-40, west of Casa Blanca. Site location information is presented in Appendix 1.

Prior to conducting fieldwork, current listings of the *National Register of Historic Places*, the *State Register of Cultural Properties*, and the site files of the New Mexico Cultural Resource Information System were consulted. No properties listed on, nominated to, or approved for submission to either inventory are located in the vicinity of LA 5942.


R.6 W
R 5 W
R 4 W
T 13 N.
T 12 N.
T.11 N.
T.10 N.
T 9 N
Figure 1.
Project vicinity map
0
5 miles
0
8 km.
Adapted from NMSHTD Laguna Quad, NAD 1927
N
LA MESA DEL CAÑON SECO
AGUA SALADA GRANT
MESA CHIVATO
Seboyeta
Cibola
CHOLLETA
INDIAN
LAGUNA
RESERVATION
PAGUATE
PURCHASE
GRANT
MESA
RITO

ENVIRONMENT

LA 5942 is on the south side of the Rio San Jose Valley, at the northern foot of Seama Mesa, just west of Paraje. The elevation of the site is 1,844 m (6,050 ft). The site is in a sparse piñon-juniper woodland, interspersed with open areas of mixed grasses. Soils in the site area are thick Quaternary alluvial and colluvial deposits characterized by gravel lensing and surface boulders.

Geology and Geomorphology

The Rio San Jose originates on the continental divide, northwest of Thoreau, New Mexico, and flows east (Dittert 1959:22). The valley of the Rio San Jose is wide and sandy for most of its length (Bryan and McCann 1943:282).

The valley of the Rio San Jose is in the southeastern portion of the Colorado Plateau. Known as the Datil section of the Colorado Plateau (Fenneman 1931:278; Fitzsimmons 1959:112), this area is characterized by large structural features (Tainter and Gillio 1980:6). To the east of the general site area are the Puerco Fault Uplift and the Lucero Uplift. West of the general site area is the Zuni Uplift (Fenneman 1931:278).

LA 5942 is in an area of lower elevation known as the Acoma Sag or Acoma Embayment (Kelley 1950). This subarea of the Colorado Plateau is characterized by folded and faulted Triassic, Jurassic, and Cretaceous sandstone deposits Gadway 1959:81; Fitzsimmons 1959:113; Smith 1959: Fig. 1) and evidence of extensive volcanic activity. Mount Taylor is the most obvious example of this Tertiary volcanic activity (Fenneman 1931:318-319; Foster et al. 1959:23). Old erosional surfaces associated with the ancestral Rio Grande are also present (Fitzsimmons 1959:113). In the north, the Acoma Embayment grades into the San Juan Basin, and to the south, into the Mogollon Slope (Kelley 1950).

LA 5942 is at the northern foot of Seama Mesa (Evans 1994: Fig. 1), part of the Cebolleta Mesa system (Dittert 1959:15). A remnant of the Ortiz period pre-Pleistocene surface (Fitzsimmons 1959:113; Wright 1946:443), this is a basalt-capped tableland with stepped margins resulting from erosional differentiation (Dittert 1959:15). Lochman-Balk (1959:100-111) lists the strata of Cebolleta Mesa from top to bottom as basalt, Mesa Verde formation, Mancos Shale formation, Dakota Sandstone, Morrison formation, Todilto Limestone, Wingate Sandstone, and Chinle formation.

Soils in the site area form part of the Torrifluvents-Haplargids-Haplustolls Rock Land soil associations, soils originating in alluvial deposits (Maker et al. 1974:91-92). A thin surface layer of noncalcareous fine sandy loam, light brown to brown, is usually present over a light brown to reddish-brown sandy clay loam. A prominent lime zone occasionally occurs in these soils at a depth of 76 to 127 cm (30 to 50 inches). Numerous rocks and boulders are a common surface features of these soils (Maker et al. 1974:93). Although the soils in this association can be quite rich in areas, they are usually utilized for grazing (Maker et al. 1974:91-92).

Climate

West-central New Mexico is classified as a semiarid high desert, steppe climate (Jones 1922:69-72; Tuan et al. 1969:18). This region is characterized by middle to late summer showers, and small additional amounts of moisture occur as winter snow (Gabin and Lesperance 1977:422; Jones 1922:69-72; Tuan et al. 1969:54).

Within the general site area, the occurrence of winter moisture is particularly erratic (Dittert 1959:24). Most winter moisture arrives in the American Southwest as polar Pacific air (Dannoh 1946:9). Mount Taylor creates a rain shadow, blocking most of this winter moisture from reaching the area of LA 5942.

The result of this seasonal fluctuation in received moisture, combined with the dramatic variation in local typography and elevation, is extreme localized differentiation of microclimates, including temperature, first frost date, and length of growing season.

Flora and Fauna

LA 5942 is within the Woodland Biome. This biome is characterized by small trees (in this area primarily juniper), with grassland in the open spaces (Castetter 1956:270). Precipitation is the prime determinant in the distribution of woodland (Castetter 1956:271), although the effects of grazing have modified large areas of New Mexico woodland to a great extent (Castetter 1956:270). LA 5942 is in an area utilized for sheep grazing by the Pueblo of Laguna, possibly creating denser stands of trees than would normally occur (Castetter 1956:272).

Faunal populations vary according to habitats that tend to correspond to plant communities. The number of plant communities near LA 5942 suggests a range of plants greater than that of any single vegetation zone. Characteristic species in the site vicinity include jackrabbit, cottontail rabbit, prairie dog, various species of birds, and associated small rodents, including varieties of squirrels, mice, rats, and gophers. Larger species include porcupine, skunks, raccoon, badger, coyote, pronghorn, and deer.

An in-depth regional study of the cultural history of west-central New Mexico is beyond the scope of this report. Regional summaries are available in a variety of sources (Dittert 1959; Stuart and Gauthier 1981; Tainter and Gillio 1980).

Paleoindian Period

The Paleoindian period (11,000-5500 B.C.) was first recognized in 1926 at the Folsom site in northeastern New Mexico (Wormington 1947:20). A series of Paleoindian traditions have since been defined, beginning with Clovis and continuing through Plano (Stuart and Gauthier 1981:294-300). Originally defined on the plains of eastern New Mexico, the Paleoindian cultural area has been expanded to include virtually all of North America. Although it was originally believed that Paleoindian people were solely dependent on big-game hunting, the importance of plant gathering and small-animal hunting to their subsistence is now recognized (McGregor 1965:120; Willey 1966:38; Jennings 1968:78-79; Judge 1973; Wilmsen 1975:115; Cordell 1979:19-21, 1982; Stuart and Gauthier 1981:31-33).

Paleoindian sites have been documented in the Laguna area (Judge 1973). Distinctively shaped Paleoindian projectile points have also been recorded in the site area by Judge (1973) as part of his study of the central Rio Grande Valley. Additional sites are probably present in the region but are buried under alluvial deposits (Cordell 1982).

Archaic Period

The Archaic period in west-central New Mexico (5500 B.C.–A.D. 400) is generally referred to as the Oshara tradition (Irwin-Williams 1973). This period is characterized by distinctive projectile points and lithic artifact scatters that may include grinding implements and fire-cracked rock, but which lack ceramics. Archaic subsistence adaptations are based on a highly mobile broad-based economy characterized by a combination of seasonally scheduled hunting and gathering.

The Oshara tradition is divided into five phases: Jay (5500-4800 B.C.), Bajada (4800-3200 B.C.), San Jose (3200-1800 B.C.), En Medio (1800-800 B.C.), and Armijo 800 B.C.-A.D. 400) (Irwin-Williams 1973). The first four phases were nonagricultural. Increasing dependence on gathered plants is indicated by the increased ubiquity of grinding implements. Maize cultivation appeared during the Armijo phase. Subsistence continued, however, to be characterized as a hunting and gathering economy.

Further north, cultural manifestations in west-central New Mexico are defined as Basketmaker II, and in eastern Arizona as Late Archaic with corn. This form of cultural development appears to have occurred first in the elevated perimeter of the San Juan Basin, including the project area (Stuart 1982:157).

In the general site area (the valley of the Rio San Jose), this Late Archaic period is known as the Lobo phase (1800 B.C.-A.D. 700). It is believed to have developed out of the San Jose phase of the Oshara tradition and to have served as a local predecessor to the Basketmaker III (White

Mound phase) (Dittert 1959:519-522).

A second Archaic tradition, the Cochise Culture, developed in southwestern New Mexico and southeastern Arizona. The material culture of the Cochise culture is similar to that of the Oshara tradition, differing primarily in its projectile point type sequence (Beckett 1973). The Cochise Culture may have extended as far north as the Rio San Jose and the southern periphery of the San Juan Basin. LA 5942 is within this area of potential cultural overlap (Beckett 1973:125).

Anasazi Period

LA 5942 is in an area of cultural overlap in west-central New Mexico. Known as the Acoma Cultural Province, this area has experienced an ebb and flow of populations and influences through time from both the Anasazi culture to the north and the Mogollon culture to the south (Stuart and Gauthier 1981:121). Dittert (1959) developed a local ceramic-based cultural sequence for the area that he felt better reflected this cultural overlap than the Pecos classification.

White Mound Phase

Corresponding to the Basketmaker III-Pueblo I Transition (Pecos classification), the White Mound phase is characterized by small pit structure settlements with some surface rooms, and some cliff like shelters (Dittert 1959:522-526)

Ceramics appear in the northern portion of Cebolleta Mesa late in the Late Archaic Lobo phase (Stuart and Gauthier 1980:124), and pottery is present across most of the Acoma Cultural Province by the White Mound phase (A.D. 700-800). Although this phase is known for gray ware ceramics, particularly White Mound Black-on-white, some brown wares are also present (Dittert 1959:522-526).

Kiatuthlanna Phase

The Kiatuthlanna phase (A.D. 800-870) corresponds to Pueblo I in the Pecos classification. Sites associated with this phase are found in a more limited range of settings: mesa tops and secondary drainages. Pit structures occur with associated jacal surface rooms in linear or crescentic arrangements (Dittert 1959:526-534).

Kiatuthlanna Black-on-white is the diagnostic ceramic type at this time. Brown wares are also common during this phase, assumed by Dittert (1959:526-534) to indicate Mogollon influence in the area.

Red Mesa Phase

The Late Pueblo I to Early Pueblo II (Pecos classification), is represented in the Acoma Cultural Province area by Dittert's (1959) Red Mesa phase (A.D. 870-950). Jacal surface rooms with associated brown wares dominate the early sites in this phase. L-shaped masonry roomblocks and gray ware ceramics became the norm in later Red Mesa phase sites (Dittert 1959:534-540). Anasazi cultural influence, perhaps connected with the Chaco phenomenon, dominates the Cebolleta Mesa area during the Red Mesa phase (Stuart and Gauthier 1981:121).

Red Mesa Black-on-white is the diagnostic type in later Red Mesa phase sites (Dittert 1959:534-540).

Cebolleta Phase

The Cebolleta phase (A.D. 950-1100) corresponds to the Pueblo II period in the Pecos classification. This phase sees a transition to larger sites, and a later regional cultural disruption corresponds to the perceived breakdown of the Chaco system (Dittert 1959:540-547).

The late Cebolleta phase sees a greatly increased diversity in ceramics, with a greatly increased occurrence of brown wares. Dittert (1959:540-547) interpreted this as evidence of regional trade. Cebolleta Black-on-white is the diagnostic ceramic of this period. (Dittert 1959:540-547).

Pilares Phase

The Early Pueblo III period (Pecos classification) is represented in the Acoma Cultural Province by the Pilares phase (A.D. 1100-1200). The northern and southern areas of the Acoma Cultural Province diverge during the Pilares phase. The northern portion of the district (including LA 5942 and the Rio San Jose Valley) maintain masonry architecture. To the south, adobe architecture becomes the norm (Dittert 1959:547-553).

The ceramics reflect this division. Cebolleta Black-on-white is the diagnostic type in the northern portion of the district, while local Tularosa Black-on-white is diagnostic in the south (Dittert 1959.547-553).

Kowina Phase

The Kowina phase (A.D. 1200-1400) corresponds to Late Pueblo III and Early Pueblo IV in the Pecos classification. Large-scale aggregation takes place during the Kowina phase with the construction of large villages. Changes in ceramics suggest large-scale population movements from the south (Dittert 1959:553-564).

Diagnostic ceramics during this phase are Tularosa Black-on-white, Kowina Black-on-white, and St. Johns Polychrome (Dittert 1959:553-564).

Cubero Phase

The Cubero phase (A.D. 1400-1600) corresponds to Pueblo IV and Early Pueblo V in the Pecos classification. The village of Acoma and the surrounding area were settled at this time (Dittert 1959:564-568).

The Cubero phase is marked by the introduction of glazed ceramics. Pinnawa and Kwakina glazes are diagnostic of this period (Dittert 1959:564-568).

Acoma Phase

The Acoma phase (A.D. 1600-present) corresponds to the Pueblo V period in the Pecos classification and the historic period at Acoma Pueblo. Settlement along the Rio San Jose takes place during this period (Dittert 1959:568-571).

Diagnostic ceramics during the Acoma phase include Hawikuh glazes, and Ashiwi and Acoma polychrome ceramics (Dittert 1959:568-571).

Historic Period

A detailed synthesis of the last 400 years of New Mexico history is available from other sources (Tainter and Gillio 1980).

Spanish involvement in the general project area dates to the arrival of Friar Marcos de Niza in 1539 and Vasquez de Coronado in 1540. As part of the Spanish domains, the region suffered the effects of Spanish rule, leading to the Pueblo Revolt of 1680 (Scholes 1942:6).

The Reconquest brought improved Pueblo-Spanish relations, including the establishment of Pueblo land grants. These reserved for exclusive Indian use the land surrounding each pueblo in accordance with traditional tribal use (Tainter and Gillio 1980:131).

Cebolleta, the first Spanish settlement in the general project area, was established in 1800 (Tainter and Gillio 1980:131). Slaving expeditions against the Navajos by the Spaniards led to Navajo attacks on Spanish and Pueblo settlements. In the general project area, these raids were usually by Navajos living northwest of Mount Taylor (Twitchell 1963:11-13).

Sporadic warfare beginning in 1800 continued between the Navajos and, in succession, the Spanish, Mexican, and American governments until 1864. Some Navajo groups, desiring an end to warfare with the Spanish government, made a separate peace and settled east of Laguna. This settlement ultimately became the Cañoncito Navajo Reservation (McNitt 1962:50). Final defeat of the Navajos in 1864 resulted in their physical removal in the "long walk" to Fort Sumner in eastern New Mexico. The Navajos were allowed to return to northeastern Arizona and northwestern New Mexico (including the Mount Taylor area) in 1868 (Roessel 1983:510).

American settlement in the general area of LA 5942 prior to 1880 was limited to military personnel and Indian agents assigned to the reservations (Scheick 1983). The first American military post in the area was established in Cebolleta in December of 1849 in an effort to halt the illegal trade in liquor and guns with the Indians (Giese 1991:5). The post was moved to Laguna in September of 1851. However, after a few months the post was abandoned, and the troops garrisoned at Laguna were transferred to Fort Defiance, Arizona (Giese 1991:5).

In 1880, the route of the Atlantic and Pacific Railroad (later part of the Atchison, Topeka and Santa Fe Railroad) followed the Rio San Jose across both Acoma and Laguna lands (Myrick 1970:34). Later economic development centered on the uranium mining industry based in Grants and Laguna (Hilpert 1969:5). Currently tourism plays an important role in the local economy.

TESTING PROGRAM

The remaining portion of LA 5942 is a ceramic and lithic artifact scatter (Evans 1994). The site was tested as part of the planned removal of a group of unstable boulders above I-40 just west of Casa Blanca, New Mexico. The purpose of the limited testing was to determine the extent and importance of the portions of the site within the planned project area.

Field Methods

The limited testing followed approved methods and procedures as outlined in *Testing and Site Evaluation Proposal* (SHPO Log 43648). A main datum and baseline were established at the site. Surface artifacts were pinflagged to locate artifact clusters and assist in recording and mapping site limits. A map of the site and surface artifacts was produced using a transit, stadia rod, and 50 m tape. Surface artifacts were analyzed in the field and left in place. All artifacts recovered from within test units were collected and brought back to Santa Fe for analysis.

Test units measuring 1 by 1 m were hand excavated within the portion of the site within the proposed project area. These test units were within or adjacent to areas of surface artifact concentrations, or in other areas of possible prehistoric activity indicated by discolored soil. Existing soil integrity was an additional consideration in the placement of test units. Test units were excavated in 10 cm levels until culturally sterile soil or bedrock was reached. The number of excavated test units was determined by surface artifact occurrence, remaining soil integrity, and site size. All of the excavated dirt was screened through 1/4 inch wire mesh, and the artifacts were collected.

Stratigraphic profiles were drawn for each test unit, and test unit and general site photographs were taken. Test units were backfilled when excavation was completed. Cultural material recovered through this investigation will be curated at the Archaeological Research Collection at the Laboratory of Anthropology, Museum of New Mexico, unless otherwise requested by the Pueblo of Laguna. Field notes and analysis records will be on file at the Historic Preservation Division, Archaeological Records Management Section.

Testing Results

The main portion of LA 5942 (a roomblock, kiva, and midden areas) was excavated in 1967 prior to the construction of I-40 (Peckham 1967:8-11). The construction of I-40 through the middle of the site removed this excavated portion. Testing was limited to the proposed project area, south of I-40.

The remaining portion of LA 5942 is a ceramic and lithic artifact scatter measuring 290 m north-south and 260 m east-west (Figs. 2-4). The elevation of the site ranges from 1,828.8 m (6,000 ft) to 1,859.3 m (6,100 ft). A total of 147 surface artifacts was recorded (both ceramic and lithic artifacts). An additional 190 artifacts were recovered from eight test units and five auger holes.

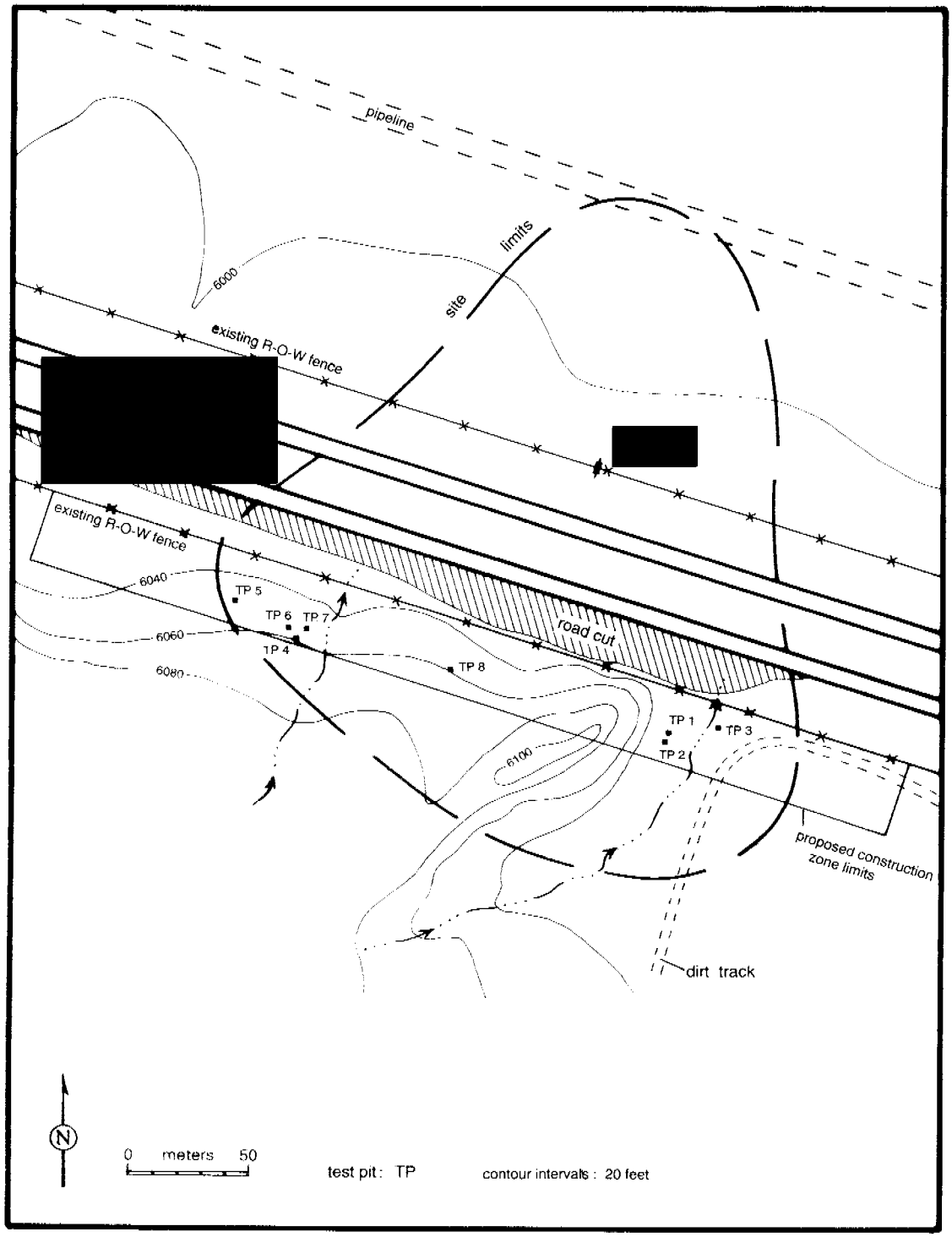


Figure 2. LA 5942 site map

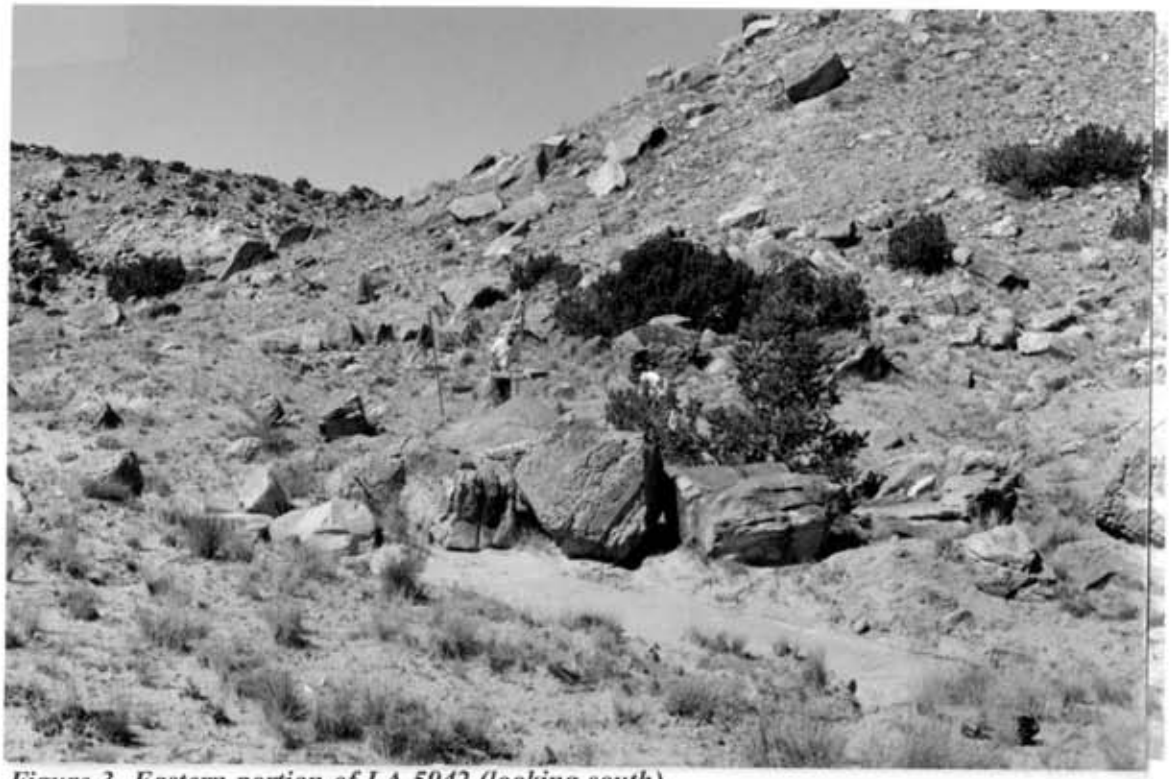


Figure 3. Eastern portion of LA 5942 (looking south)

Figure 4. LA 5942 site overview (looking south)

Test Unit 1

Test Unit 1 (1 by 1 m) was placed in an artifact concentration in the eastern portion of the project area. This test unit was located at the base of a steep east-facing slope. Surface vegetation on the unit prior to excavation was limited to sparse grasses. Ten lithic artifacts were collected from the surface of the unit.

Excavation ended 70 cm below the modern ground surface in culturally sterile soil. This test unit revealed a fine sandy soil containing ten alluvial lensing episodes. Differences between them were expressed as changes in soil texture and the presence or absence of gravels. Lithic artifacts were present in the top five lenses of material. One lens (Stratum 6) contained flecks of redeposited charcoal. No artifacts were found in this lens.

A series of auger holes was dug to investigate the extent of the deposit containing charcoal flecks. This material was found to extend across a 0.5 by 0.5 m area between Test Unit 1 and exposed bedrock upslope to the west. The material containing charcoal is redeposited from higher ground, apparently from a feature that no longer exists.

No intact cultural features or deposits were found. All of the material present in Test Unit 1, including artifacts, originated upslope to the west.

Test Unit 2

Test Unit 2 (1 by 1 m) was excavated south of Test Unit 1 to investigate an area of soil stained with charcoal. No surface vegetation was present on this test unit prior to excavation.

Excavation of Test Unit 2 ended 10 cm below the modern ground surface in culturally sterile soil. Two strata of material were present in Test Unit 2. Stratum 1 was a thin (2 cm) layer of eolian surface sand containing some charcoal. Stratum 1 was a light grayish brown laminated sandy soil. Lithic artifacts recovered from this test unit were found below the charcoal-stained soil at its interface with the underlying material.

Test Unit 3

Test Unit 3 (1 by 1 m) was east of Test Units 1 and 2, across a drainage. This test unit was placed in a surface artifact concentration. Sparse grasses were present on the surface of the test unit. One ceramic artifact was collected from the test unit prior to excavation.

Excavation ended 30 cm below the modern ground surface in culturally sterile soil. Three strata were revealed in this test unit. Stratum 1 was a tan silty sandy soil containing some angular pieces of rock. Stratum 2 was a gray silty sand. Stratum 3 was a compact silty sand containing caliche. A 53 cm deep auger hole was placed in the bottom of Test Unit 3. No cultural features or deposits were found.

Test Unit 4

Test Unit 4 (1 by 1 m) was excavated to investigate a surface artifact concentration in the southwestern portion of the site. Mixed grasses were present on 20 percent of the test unit's surface prior to excavation.

Excavation ended 10-20 cm below the modern ground surface in culturally sterile soil. Four strata were found in this test unit. Stratum 1 was a loose silty sand containing some surface duff. Stratum 2 was a fine silty clay. Stratum 3 was a yellow fine sandy clay. Stratum 4 was a silty gray clay. No artifacts or cultural deposits or features were found.

Test Unit 5

Test Unit 5 (1 by 1 m) was excavated in the southwestern portion of the site to investigate a previously recorded circle of rocks. This was composed of one and two courses of small rocks stacked in the openings between three large boulders. Modern trash (broken glass, plastic, etc.) was present within this circle of rocks. Surface vegetation on the top of this test unit was composed of a 50 percent cover of mixed grasses.

Excavation ended at 20 cm below the modern ground surface in culturally sterile soil. Two strata of material were recorded in this test unit. Stratum 1 was a tan sandy loam containing large amounts of gravel, pieces of angular rock, and articles of modern trash. Stratum 2 was sandy clay and angular pieces of rock. No artifacts were recovered in Test Unit 5. The lack of prehistoric or historic artifacts of any kind associated with the circle of rocks suggests that it is of modern origin, possibly having served as a transient camp.

Test Unit 6

Test Unit 6 (1 by 1 m) was excavated adjacent to a surface artifact concentration in the southwestern portion of LA 5942. No surface vegetation was present in this area prior to excavation. One lithic artifact was collected from the surface of this test unit.

Excavation stopped 20 cm below the modern ground surface in culturally sterile soil. Testing revealed two strata of material in Test Unit 6. Stratum 1 was a fine silty sand containing flecks of caliche. Stratum 2 was a silty clay containing caliche. No artifacts were found in either stratum. No cultural features or deposits were found.

Test Unit 7

Test Unit 7 (1 by 1 m) was in the southwestern portion of the site. This test unit was excavated to investigate an area between two surface artifact concentrations. No surface vegetation was present in the test unit area prior to excavation.

Excavation ended 20 cm below the modern ground surface in culturally sterile soil. Two strata of material were revealed in this test unit. Stratum 1 was a loose sandy loam containing gravel. Stratum 2 was a dense grayish brown clay containing some gravel and caliche. No cultural deposits or features were found.

Test Unit 8

Test Unit 8 (1 by 1 m) was placed in the south-central portion of the site adjacent to a surface artifact concentration. Surface vegetation at Test Unit 8 was comprised of an 80 percent cover of sage and mixed grasses. The remaining 20 percent of the test unit surface was covered with gravel.

Excavation ended at 20 cm below the modern ground surface in culturally sterile soil. Three

strata of material were revealed in this test unit. Stratum 1 was a silty surface layer containing large amounts of gravel and cobbles. Stratum 2 was a silty clay. Stratum 3 was a silty clay containing flecks of caliche. No cultural deposits or features were found.

Auger Holes

A series of five auger holes was dug in the area of Test Unit 1 to investigate the extent of redeposited charcoal found within the test unit. The redeposited charcoal was found to cover a .5 by .5 m area between Test Unit 1 and exposed bedrock upslope to the west.

LITHIC ARTIFACT ANALYSIS

A total of 274 lithic artifacts were analyzed during the testing of LA 5942. All were made from locally available material. Lithic artifacts were collected during the original excavation of the site by Peckham (1967) but were not analyzed.

Methods

Attributes chosen for lithic analysis reflected the desire to achieve the greatest return of useful information within the available time. The guidelines, attribute definitions, and format of *Standardized Lithic Artifact Analysis* (OAS 1995) were followed.

Material Type

Codes for material types are for general material groups unless the material is unquestionably from a recognized source. For example, although a wide range of chert occurs on these sites, all were classified as "chert." If a specimen was of a specifically named chert (such as Washington Pass chert), it was coded by the specific name.

Morphology (Artifact Type)

Morphology is the characterization of artifacts by form. Examples include core flake, biface flake, biface, and types of cores.

Portion

Portion is part of the artifact recorded. Flakes and tools can be whole or fragmentary. Angular debris and cores are whole by definition.

Dorsal Cortex

Cortex is estimated to the nearest 10 percent increment. For flakes this is the cortex on the dorsal surface. Cortex on the platform was not included. For other morphological types, the percentage of cortex on all surfaces is estimated and added together.

Flake Platform

Flake platform is recorded for whole and proximal flakes. Some lateral flakes also have their platforms recorded if the platform is still present. The morphology of the impact area prior to flake removal or extreme modifications of the impact area caused by the actual flake removal is coded.

Size

Artifact size is recorded in millimeters.

Edge Number

Each utilized edge on an artifact is given an edge number. Consecutive numbers are used for

artifacts with more than one utilized edge. Each edge was analyzed separately for function and wear patterns.

Function

Function characterizes and describes use on all artifacts. Examples of functions include chopper, knife, and projectile point.

Wear Patterns

Artifact modification caused by human use is coded as wear. Examples of recorded wear include unidirectional or bidirectional wear.

Results

A bias toward larger, more easily observed flakes probably skewed surface collecting data regarding flake size and morphology. Since large flakes tend to be core flakes from early stages of reduction, and since core flakes tend to exhibit unmodified platforms, the predominance of core flakes exhibiting cortical or single-faceted platforms in the assemblage is a product of sampling bias, rather than necessarily an emphasis on early-stage reduction.

Material Selection

Material use serves as an indication of human decision making processes with regard to the suitability of materials (Young and Bonnichsen 1985:128). The presence within a suite of either tested material or substantial numbers of core flakes exhibiting dorsal cortex can thus be presumed to illustrate the manner in which this material suitability is determined. The presence of silicified wood reduction at LA 5942 is an example of this process.

Although several materials were utilized at LA 5942, silicified wood comprises 214 artifacts, or 78 percent of the total lithic artifact assemblage (Table 1). Utilized artifacts of silicified wood (both formal and expedient tools) comprise 50 percent of that assemblage.

Silicified wood was repeatedly tested and utilized, as subsequent reduction shows. This resulted in a large concentrated scatter of silicified wood core flakes and cores. Although a few were utilized, most were discarded and remained simple debitage.

Rhyolite, siltstone, quartzite, and quartzitic sandstone also occur at the site as core flakes with large amounts of cortex. This suggests that they were also examined for material suitability, although not to the extent of silicified wood.

All of these materials, including silicified wood, occur locally as nodules of various size within the stepped erosional deposits that characterize the lower slopes of Seama Mesa.

Artifact Morphology and Material

Core flakes make up the largest morphological group. Core flakes also make up the largest morphological group within each material category except obsidian (Table 1). More morphological

types occur within the silicified wood material type, reflecting the heavy reliance on this material at LA 5942.

Flake Morphology and Flake Portion

The largest category of flake portion in the site assemblage is whole flake. Proximal and lateral flake fragments are the second largest categories. All of the hammerstone flakes present are whole. Most of the resharpening flakes (83.4 percent) are whole, and the rest are lateral flake fragments (Table 2).

Dorsal Cortex and Platform Type

The amount of cortex on lithic artifacts and the predominance of core flakes exhibiting cortical or single-facet platforms can provide evidence of the stage of lithic reduction. Cortical and single-facet platforms predominate, and cortex is present on 53.6 percent of the artifacts from LA 5942 (Tables 3 and 4). The largest numbers are found in the 0-30 percent range, at 76.7 percent of the artifact total. This suggests that at least some preliminary core preparation of both chert or silicified wood took place at the site. The lack of tested cobbles and the low frequency of cores indicates that some lithic material was transported out of the site area prior to final utilization.

Utilization by Material

Utilized single-function artifacts at LA 5942 are predominately silicified wood (Table 5). A number of functional categories span both silicified wood and other material types. Artifacts exhibiting multiple functions are predominately silicified wood, although quartzitic sandstone is also present.

Artifacts exhibiting utilization make up 7.2 percent of the lithic assemblage, with formal tools comprising 4.7 percent of the total. The low number of tools present at LA 5942 suggests that any stone tool use in this area was minimal. The lack of any discernable secondary refuse also suggests lithic reduction was the primary activity to take place in this portion of the site.

The portion of LA 5942 tested is peripheral to the main site area (Peckham 1967). This positioning may be reflected in the activities represented by the lithic assemblage. The lithic assemblage suggests a limited suite of short-term, limited activities. Since we know that the area tested was on the edge of a site that originally contained a small Pueblo roomblock, any activity represented should relate to it. It should be possible to determine, however roughly, the types of activities pursued at this site (Christenson 1987:77). We are at a disadvantage because the excavated material from LA 5942 was never analyzed. However, our lithic artifact assemblage is large enough to enable us to make some assumptions.

The presence of utilized debitage suggests the manufacture and use of expedient tools. Their occurrence is to be expected at an Anasazi site and indicates a wider range of activities than those represented by formal tools alone. Limited tool manufacture is indicated by the lack of biface thinning flakes, although the presence of resharpening flakes is indicative of tool rejuvenation. While this is more likely to occur at a logistical camp or resource extraction location than at a residential area, the numbers are low enough to be representative of a residential site (Akins and Bullock 1994:27).

CERAMICS

C. Dean Wilson

While a fairly large number of ceramics were recovered during the original excavations of LA 5942, they were not analyzed due to a lack of funds (Peckham 1967). Thus, the only formally analyzed ceramics from this site are the 27 sherds collected during this testing program. This small sample size limits ceramic-based interpretations. However, data recorded during their analysis does allow for a rough characterization of pottery from this very poorly known area, providing information relation to the time of occupation and very basic ceramic trends at this site. Information recorded during the analysis of these sherds includes context of recovery (Table 6), descriptive attributes, typological categories, counts, and weights. Appendix 1 details variables recorded during this analysis.

Attributes

Attributes recorded for each sherd include temper type, interior and exterior pigment, interior and exterior surface manipulation, paste profile, and vessel form. In addition, refired color was recorded for a small sample of sherds.

Temper

Temper categories were identified by examining freshly broken sherd surfaces through a binocular microscope. Temper categories were differentiated based on combinations of color, shape, fracture, and reflectivity of tempering particles. *Sand* refers to rounded or subrounded, white to translucent, sorted, white to clear sand grains. *Sherd* refers to the use of crushed potsherds as temper. Sherd temper consists of angular to subangular particles that are relatively small and usually white, buff, gray, or orange. *Sand and sherd* refers to the presence of both sand and sherd particles. *Rolled basalt and sand* refers to a combination of rounded quartz grains and larger rounded shiny black fragments that presumably are basalt.

Paste Cross Section

The color of sherd cross sections provides information concerning firing conditions to which vessels were exposed. Red or buff profiles indicate oxidizing atmospheres. Black or dark gray profiles result from reduction atmospheres. The presence of light gray and white colors indicates intermediate or neutral atmospheres. Paste cross sections include *dark gray*, *white to dark gray*, and *dark core*.

Pigment

Pigment categories were recognized based on the presence and visual characteristics of painted decorations and were recorded for both interior and exterior surfaces. All the sherds examined during this study were either unpainted or had painted decorations executed with mineral pigment. *Mineral pigment* refers to the use of finely ground minerals such as iron oxides. Mineral pigment rests on the vessel surface, obscures surface irregularities, and exhibits visible relief. Color of mineral pigment may range from black to red, depending on the firing atmosphere.

Surface Manipulation

Surface manipulation refers to evidence of surface polish or textures and was recorded for both interior and exterior sherd surfaces. *Plain unpolished* includes smoothed and plain but unpolished surfaces. *Indented corrugated* includes sherds exhibiting a series of distinct narrow unobliterated coils with regular indentations. *Plain-polished-unslipped* refers to surfaces which have been smoothed and intentionally polished. Polished surfaces have been intentionally smoothed with a polishing stone, producing an evenly smoothed, compact, and lustrous surface. *Plain-polished-slipped* refers to surfaces exhibiting a distinctive white clay slip, which has been subsequently polished.

Vessel Form

Vessel form categories were assigned to sherds based on the shape and the location of polish or painted decoration of a given sherd. *Bowl rim* sherds refer to bowl shapes as indicated by rims sloping inward. *Bowl body* sherds were recognized by the presence of polishing or painted decorations on the interior surface of the vessel. *Jar body* refers to unpolished and unpainted gray body sherds or to white ware sherds with exterior polishing or painted decorations. *Jar neck* refers to nonrim sherds exhibiting the distinct curvature of a jar neck. *Cooking jar* refers to jar rims with relatively wide rim diameters which could have been utilized for cooking or storage. *Jar body with handle* refers to the presence of a coiled handle attached to a jar body sherd.

Refired Color

Samples of clips from 16 sherds were fired in controlled oxidation conditions to 950 degrees C. Sherd and clay samples exposed to similar firing conditions may be compared based on the influence of mineral impurities (particularly iron) on paste color. The color of each sample was recorded using the Munsell Soil Color Chart. These comparisons assist in the identification of ceramics that may have been produced with clay from the same source (Shepard 1965).

Typological Classification

Each sherd was assigned to a ceramic type based on combinations of various traits. Typological assignments are arrived at by a series of decisions. A sherd is first placed into a category based on Southwest ceramic tradition temper, paste, and paint characteristics. Ware categories are assigned according to surface manipulation and form. Ceramic types are then assigned to sherds of various traditions and wares based on temporally sensitive surface manipulations and design styles.

The presence of sand temper and light pastes indicate that all the sherds examined probably represent Cibola tradition types. Ceramics exhibiting similar characteristics dominate assemblages over a very wide area including most of the southern Anasazi region. Ceramics produced in the Laguna area are similar to those described for the Acoma province, which is sometimes called a distinct variant of the widespread Cibola tradition Dittert 1959; Ruppé 1953; Marshall 1991; Wilson 1994). Similarities to the ceramics of the Prewitt district, west of Grants, were also noted during the original investigations of LA 5942 (Hargrave 1962; Peckham 1967). During the present study, a mixture of generalized Cibola types and Acoma variants were based on paste characteristics, surface manipulations, and styles.

Cibola Gray Wares

All of the utility wares from LA 5942 were assigned to Cibola gray ware types based on the presence of sand temper and a light gray to white paste. Gray ware types were recognized by the absence of polished or painted decorations. Surface manipulation and texture were used to assign gray wares to specific type categories.

Plain gray (body) includes all unpolished gray body sherds. Body sherds were not classified as Lino Gray because these should could have originated from Lino Gray vessels as well as the lower portions of neckbanded, neck-coiled, or corrugated forms. *Plain gray rim* refers to gray ware rim sherds probably derived from completely smoothed Lino Gray vessels. *Indented corrugated* refers to sherds exhibiting very thin overlapping coils, usually covering the entire exterior surface. Generally, the coils are evenly spaced and narrow with regular indentations.

Cibola White Wares

Type categories recognized during the present study include a combination of types utilized for most of the area covered by the Cibola tradition (Gladwin 1945; Hawley 1936; McKenna 1984; Windes 1977, 1984). Most decorated Cibola White Ware types have a thick brown to black mineral paint. Cibola white wares usually have white to gray pastes and are often but not always slipped. Prior to A.D. 1000, most Cibola white wares were tempered with sand but were often tempered with sherd during later periods. The great majority of Cibola white wares have light gray to white pastes and surfaces, and they fire to buff colors when exposed to oxidation firing atmospheres. Cibola White Ware types identified during the present study include the following.

Polished white refers to sherds with unpainted but polished surfaces. Similar sherds could have derived from unpainted portion of most Cibola White Ware types. *Mineral painted white* refers to sherds with decorations in mineral paint but without distinct painted styles indicating a specific type.

Red Mesa Black-on-white refers to white wares with mineral painted designs in Early Pueblo II Anasazi styles. Designs consist of multiple parallel lines sometimes embellished with triangles or ticked lines, ribbons with squiggle hachure, and scrolls. Painted designs are often well executed and often consist of a number of designs occurring together in fairly complex patterns.

Gallup Style Black-on-white refers to sherds exhibiting Pueblo II surface manipulation and hachured designs. Lines are usually thin and closely spaced. *Pueblo II Solid Design* refers to the range of solid design styles employed during the later part of the Pueblo II and early Pueblo III periods. Design styles often include triangles, parallel lines, and chevrons. Given the light color and heavy polish of sherds assigned to this type, they may represent varieties of *Cebolleta Black-on-white*, a type defined for the Acoma province (Dittert 1959).

Dating

Material recovered from the original excavation of LA 5942 was interpreted as indicating Red Mesa and Cebolleta phase components as defined for the Acoma district (Dittert 1959; Peckham 1967). Such an assignment implies occupations during the tenth or eleventh centuries.

Types recovered during recent investigations of this site appear to support these dating interpretations. The occurrence of Plain Gray as the dominant utility ware and the occurrence of Red Mesa Black-on-white is consistent with a Red Mesa phase component. The presence of a single Indented Corrugated sherd and examples of both Gallup and Solid style of Cebolleta Black-on-white indicates the presence of a Cebolleta phase component. While it is possible this combination of ceramics could reflect two distinct occupations, it could also reflect an occupation during the early Cebolleta phase. If this is the case, an occupation sometime during the late tenth or very early eleventh century is indicated.

Trends

While the number of sherds recovered during recent investigations of LA 5942 is too small to adequately examine most trends, a few very basic patterns were examined. The consistent presence of low-iron paste (Table 7) and sand or sherd temper (Table 8) in both the gray and white wares resulted in their assignment to types of the Cibola tradition. The consistent use of low-iron pastes is further indicated by the fact that the great majority of gray and white wares refired to buff colors. Similarities in temper and paste may imply local production of both Cibola gray and white wares. This indicates that the Laguna area was in the easternmost part of the Cibola ceramic tradition. The absence of Mogollon Brown Ware types and Socorro Black-on-white may also indicate the lack of association with areas of the eastern Mogollon to the east and south.

Also of interest are high frequencies of white wares, which make up 63 percent of the sherds from this site. The dominance of white wares over gray wares is highly unusual at contemporaneous sites in other areas of the Anasazi region. The high frequency of white wares could simply reflect error resulting from the small total sample size, although similar high frequencies of white wares have been noted at other Cebolleta phase sites to the west (Wilson 1994). The relatively high frequency of white wares appears to reflect the relatively large number of white ware jar sherds found in Cebolleta phase sites. At LA 5942, 64.7 percent of all white ware sherds are jar body sherds (Table 9). As white ware jar sherds tend to be associated with ollas, the high frequency of this form during this time could reflect activities involving water storage.

DISCUSSION

The testing at LA 5942 involves a peripheral area of the site located south and southeast of the roomblock and pit structure area excavated by Peckham (1967) in 1964 (Fig. 5). The artifacts therefore represent not just short-term activity areas, but part of a suite of activities connected with an Anasazi habitation site.

Peckham described LA 5942 as a masonry pueblo roomblock of between five and eight rooms. One pit structure was found associated with the roomblock, as well as a number of extramural features. These included hearths, borrow pits, and refuse areas (Peckham 1967:8-9).

Surface rooms at LA 5942 were constructed of irregularly coursed rock masonry. Most of the stone used was local sandstone from Seama Mesa, to the south. Overall roomblock configuration was somewhat irregular, reflecting a series of room additions. Surface room walls, room size, form, and interior configuration varied from room to room. Room size ranges from 2.0 by 1.8 m (Room 3) to 6.2 by 4.0 m (Room 7).

The pit structure was east of the roomblock. It was circular, measuring between 4 and 5 m in diameter. It had a four-post support system and an east-west alignment of ventilator, ladder holes, ash pit, hearth, and sipapu. A number of small pits were present in the southern and western portions of the floor. Peckham felt this pit structure was consistent in form with other pit structures of the same time period from the Laguna district and the Rio Grande Valley.

Use of the pit structure ended prior to site abandonment. A thick layer of refuse filled the lower portion. A large number of ceramic artifacts were also present in the lower portions. Peckham (1967:9) felt that once the roof had been removed, a large number of pottery vessels had been purposely smashed against the walls.

The main refuse area of the site was 8 m east of the pit structure. The refuse area was a 10 to 20 cm thick deposit of ceramics and dark stained soil that measured 10 by 5 m.

The site was dated by ceramics to the later Red Mesa phase (A.D. 925-950) and through the Cebolleta phase (A.D. 950-1100). Peckham suggested that ceramics and architectural evidence at LA 5942 indicated the site was occupied for a long period or reoccupied repeatedly over a long period. Although the artifacts at LA 5942 were not formally analyzed, they resemble Anasazi material from the Prewitt district to the east (Peckham 1967:8-11).

The current testing centered on areas of the site roughly 150 m to the south of the previously excavated site area. Although the tested area is still part of the original site, the portion of LA 5942 south of I-40 is peripheral enough to the main site to have been utilized for specialized activities, possibly including material and food procurement.

Test units were excavated in areas containing concentrations of surface artifacts. These tended to occur adjacent to the two deep arroyos that cross the site south to north. The eastern arroyo crosses sandstone bedrock deposits. After rains, pools of water form where the sandstone slickrock is exposed in the arroyo bottom. The large number of ceramics (25 of 27) recovered in this portion of the site during testing and the possibility that the vessels were used to store water (Wilson, this volume) suggest that this arroyo may have served as an intermittent water source by site inhabitants.

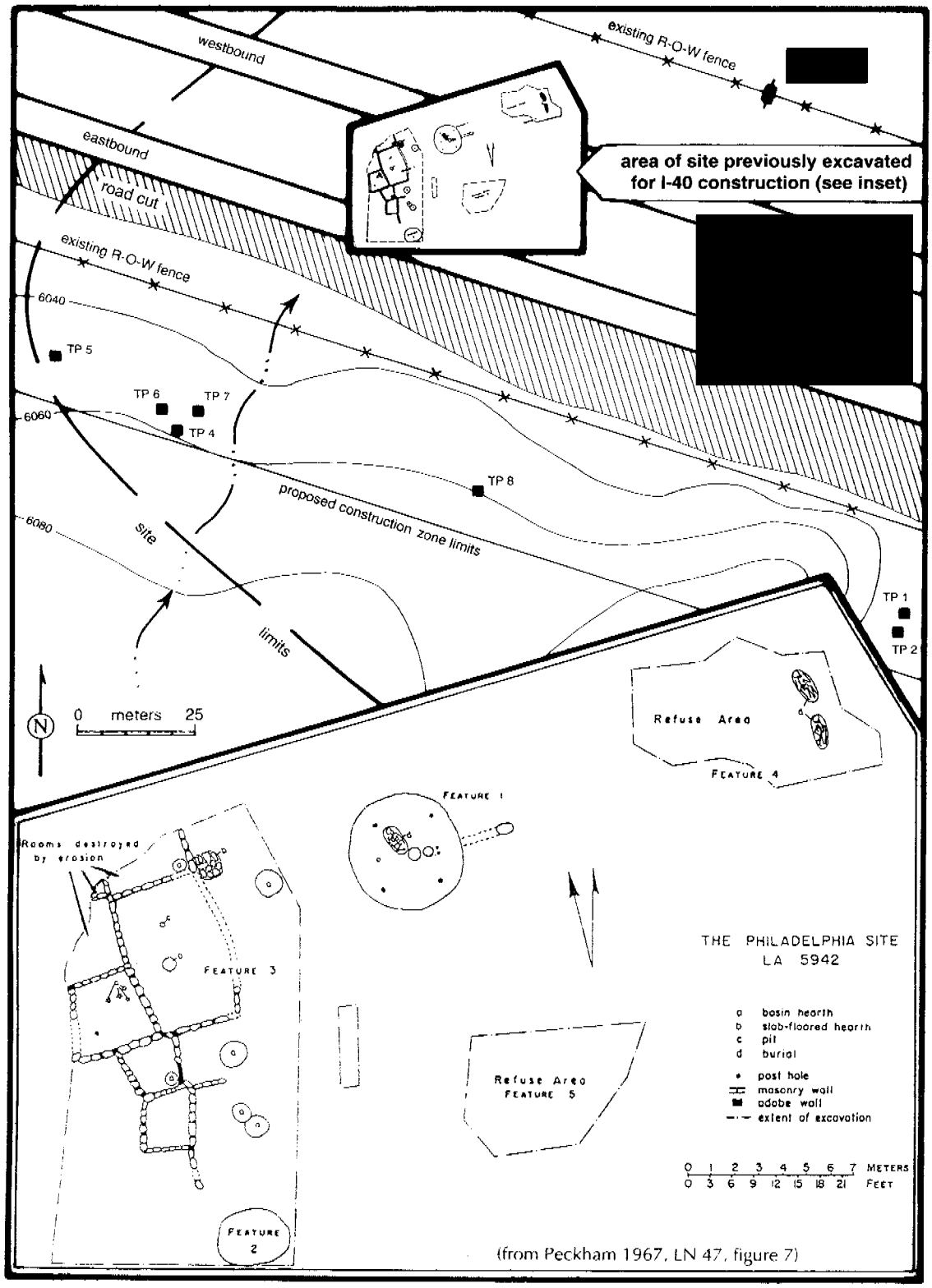


Figure 5. Excavated portion of LA 5942

Patterns of resource use are also reflected in the lithic artifact assemblage at LA 5942. Evidence of secondary reduction of silicified wood, possibly collected further south on Seama Mesa, was present within the project area. However, the western portion of the project area exhibited a wider variety of lithic materials, as well as a greater occurrence of both formal and expedient tools.

The range of tools present in the lithic artifact assemblage suggests a number of activities were cared out within this locale. The small number of formal tools at LA 5942 is compatible with artifact assemblages from other excavated Anasazi residential sites. These assemblages reflect an expedient lithic technology, with flakes produced principally for use as short-term tools (Vierra 1987:27-28). Formal tools other then projectile points are rare (Larralde 1994; Vierra 1987). When combined with the presence of a habitation, this suggests repeated short-term use by a local population (Green 1986; Johnson 1977).

One likely repeated use of the project area may have been for hunting. The eroded and boulder-strewn hillsides of the project area would provide excellent habitat for a variety of species, particularly cottontail rabbit and mule deer. Cottontail rabbits are found in a number of habitats, but are especially common on eroded hillsides cut by arroyos (Ivey 1957:493-494). The open juniper parkland of the project area is also well suited for mule deer habitat. Mule deer generally prefer open forest, brush, or scrub lands associated with rough or hilly terrain, especially mountain-foothill habitat (Mackie et al. 1982).

Historically at the pueblos, rabbits and deer were hunted communally and individually (White 1974:301-302). Individuals also commonly hunted rabbits near village limits (Hill 1982:47-52). Similar hunting patterns could have been pursued at LA 5942.

LA 5942 has long been a deer hunting area for the people of Acoma and Laguna Pueblos (Ellis 1974:167; Rands 1974:307). The site area is still used by the people of Laguna Pueblo for deer hunting (Ellis 1974:167).

The small number of artifacts recovered from LA 5942 makes site interpretation difficult. However, the artifact assemblage, combined with site location, suggests that water collection, lithic material reduction, hunting, game processing, and material processing were among the activities that took place in this portion of the site.

ASSESSMENTS AND RECOMMENDATIONS

Information derived from the surface mapping and test excavations at LA 5942, combined with analysis of the recovered artifact assemblage, provides insight into site function and aids in the interpretation of those portions of the site within the proposed project area.

LA 5942 is an Anasazi residential site dating from the Late Red Mesa phase through the Cebolleta phase. The portion of the site within the proposed project area is a diffuse artifact scatter, probably the result of seasonal or limited-activity use of the area. Included among these activities were water collection and storage, lithic material reduction, hunting, and the processing of game or materials. All artifacts were found either on the modern ground surface or within the top 10 cm of soil.

A single intact feature was found, a circular ring of stones. The circular ring of stones superficially resembles a Laguna circular stone deer trap (Ellis 1974:173). However, the lack of associated artifacts and the presence of modern trash associated with it suggests it is a recent camping area connected with transient activity along I-40.

Archaeological testing within the proposed project area at LA 5942 did not reveal any features or deposits likely to yield important information on the prehistory of LA 5942 or of the region. We recommend no further investigations at the portion of LA 5942 within the proposed project area.

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Table 1. Artifact morphology by material type

Artifact Type	Metamorphosed Sandstone		Chert		Rhyolite		Siltstone		Quartzite		Quartzitic Sandstone		Silicified Wood		Chalcedony		Obsidian		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Core flake	1	100.0	31	91.2	2	100.0	2	100.0	3	100.0	6	75.0	199	93.0	7	87.5	1	50.0	252	92.0
Resharpening flake			1	2.9							2	25.0	3	1.4					6	2.2
Hammerstone flake															1	12.5			1	0.4
Biface, first stage													2	0.9					2	0.8
Biface, third stage													1	0.5			1	50.0	2	0.8
Bicore													1	0.5					1	0.4
Multicore			2	5.9									8	3.7					10	3.6
Total	1	100.0	34	100.0	2	100.0	2	100.0	3	100.0	8	100.0	214	100.0	8	100.0	2	100.0	274	100.0

Table 2. Flake morphology by flake portion

	Portion										Total	
	Whole		Proximal		Medial		Distal		Lateral			
	N	%	N	%	N	%	N	%	N	%	N	%
Core flake	207	97.2	15	100.0	5	100.0	10	100.0	15	93.8	252	97.3
Resharpening flake	5	2.3							1	6.3	6	2.3
Hammerstone flake	1	0.5									1	0.4
Total	213	100.0	15	100.0	5	100.0	10	100.0	16	100.0	259	100.0

Table 3. Flake morphology by flake platform type

	Platform													
	Absent		Cortical		Single-faceted		Multifaceted		Collapsed		Crushed		Total	
Type	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Core flake	15	100.0	72	100.0	142	98.6	12	70.6	5	100.0	6	100.0	252	97.3
Resharpening flake					1	0.7	5	29.4					6	2.3
Hammerstone flake					1	0.7							1	0.4
Total	15	100.0	72	100.0	144	100.0	17	100.0	5	100.0	6	100.0	259	100.0

Table 4. Cortex percentages by material type

Percent	Metamorphosed Sandstone		Chert		Rhyolite		Siltstone		Quartzite		Quartzitic Sandstone		Silicified Wood		Chalcedony		Obsidian		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
0	1	100.0	18	52.9					1	33.3	3	37.5	97	45.3	6	75.0	1	50.0	127	46.4
10			4	11.8									26	12.1	2	25.0			32	11.7
20			4	11.8							3	37.5	21	9.8					28	10.4
30			1	2.9									22	10.3					23	8.4
40			1	2.9									4	1.9					5	1.8
50			1	2.9									5	2.3					6	2.2
60													6	2.8					6	2.2
70							1	50.0			1	12.5	8	3.7			1	50.0	11	4.0
80			5	14.7			1	50.0	1	33.3			11	5.1					18	6.6
90													8	3.7					8	2.9
100					2	100.0			1	33.3	1	12.5	6	2.8					10	3.6
Total	1	100.0	34	100.0	2	100.0	2	100.0	3	100.0	8	100.0	214	100.0	8	100.0	2	100.0	274	100.0

Table 5. Artifact function by material type

	Chert		Siltstone		Quartzite		Quartzitic Sandstone		Silicified Wood		Chalcedony		Obsidian		Total	
Function	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Utilized debitage	5	71.4	1	100.0					7	36.8	2	100.0			15	45.5
Retouched debitage									5	26.3					5	15.2
Hammerstone	1	14.3							1	5.3					2	6.1
Chopper					1	100.0									1	3.0
Graver									2	10.5					2	6.1
Notch									1	5.3					1	3.0
Scraper, side	1	14.3					2	100.0	2	10.5					5	15.2
Knife									1	5.3			1	100.0	2	6.1
Total	7	100.0	1	100.0	1	100.0	2	100.0	19	100.0	2	100.0	1	100.0	33	100.0

Table 6. Distribution of ceramic types

Type	#	%
Gray body	9	33.3
Corrugated body	1	3.7
Polished white	7	25.9
Mineral painted white	1	3.7
Red Mesa Black-on-white	3	11.1
Cebolleta (Gallup style) Black-on-white	3	11.1
Cebolleta (solid style) Black-on-white	3	11.1
Total	27	

Table 7. Distribution of paste profile

Ware	Dark Gray		White to Light Gray		Dark Core		Total
Gray ware	2	20%	5	50%	3	30%	10
White ware	1	5.9%	5	29.4%	11	64.7%	17
Total	3	11.1%	10	37.0%	14	51.9%	27

Table 8. Distribution of Temper Type

Ware	Sand		Sherd		Sherd and Sand		Rolled Basalt and Sand		Total
Gray ware	8	80%			1	10%	1	10%	10
White ware	5	29.4%	4	23.5%	8	47.1%	0	0%	17
Total	13	48.1%	4	14.8%	9	33.3%	1	3.7%	27

Table 9. Distribution of vessel forms

Ware	Bowl Body		Bowl Rim		Jar Body		Cooking Jar Rim		Jar Neck		Jar Body With Handle		Total
Gray ware	0	0%	0	0%	6	60%	1	10%	2	20%	1	10%	10
White ware	5	29.4%	1	5.9%	11	64.7%	0	0	0	0	0	0	17
Total	5	18.5%	1	3.7%	17	63.0%	1	3.7%	2	7.4	1	3.7%	27