

Totah Archaeological Project: Chacoan Anasazi of the Middle San Juan River

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Project Background

The Totah Archaeological Project (TAP) was established in 1999 as a research project and field school financially sponsored and administered as a joint project between San Juan College and the B-Square Ranch. The project was initiated by Tommy Bolack, owner and manager of the Bolack Minerals Company-B-Square Ranch and the Bolack Museum Foundation, because of his enthusiasm for knowledge of the Anasazi people who lived in the Totah area of New Mexico and their environment. He wishes to share the 12,000 acre B-Square Ranch that is so rich in natural resources comprised of bountiful irrigated fields, a quality riverine environment, and rugged canyons and mesas. San Juan College and the San Juan College Foundation were pleased to share in sponsoring the project because of the great potential for educational and research opportunities which could arise from such collaboration. Initially, research is focused on the Chacoan Anasazi communities of the Middle San Juan River valley.

The six-week long field school, ANTH 288, Archaeological Field Methods, is managed and taught by personnel of San Juan College's Cultural Resources Management Program, a contract archaeology business. Nine credit hours can be earned through the class that is held during summer sessions. The 1999 TAP funding provided for production of a research design which was submitted to the New Mexico State Cultural Properties Review Committee prior to the first field school session. Yearly TAP funds provide for operation of the field school, analysis of the recovered artifacts and samples, research on special topics, and publications documenting the results.

TAP project activity is in compliance with the New Mexico Cultural Properties Act (CPA) (NMSA 1978), as amended in 1989 with conditions for excavation of unmarked burials on private land. The state statute parallels requirements of the Native American Graves Protection and Repatriation Act

(NAGPRA 1990). As a result, on-going consultation has been initiated with the Hopi Office of Cultural Affairs (OCA) concerning the two human burials excavated during the field school sessions. It is of note that the OCA has voiced strong disapproval of the name of the project – Totah -- because it is a Navajo word. Puebloan petroglyphs incised on the prominent sandstone pinnacle in the project area may contain information that could be meaningful for political consideration of the project name.

Environmental Setting

Totah is a Navajo word referring to "A land among water" or more specifically, "A land where three rivers meet", the Animas, La Plata, and San Juan. In essence, Totah is the place name for the area that is now called Farmington, New Mexico. A place where farming is easier in the local semi-arid environment because of the reliability of a "usually" permanent supply of mountain-based river water, as well as wide sandy fertile river terraces for expansive fields.

The B-Square Ranch is located in a more-or-less triangular shaped area directly south of Farmington. The base of the triangle defines the northern Ranch boundary and encompasses both sides of an east-west segment of about five miles of San Juan River bottomland. The western boundary of the riverine segment adjoins the confluence with the Animas River, and the eastern boundary is about a mile from confluence with Gallegos Wash. Vivid, green, irrigated fields fill the wide terraces along the river bottomland, testifying to their bounty given adequate water. The high sandstone bluffs that parallel the flood plain on the south side of the river are popularly called the Bluffs.

The Bluffs are characterized geologically as sedimentary sandstone of the Ojo Alamo Formation and clays and shales of the Kirtland and Fruitland Formations (Dane and Bachman 1965). The deep layers are cut by myriad drainages creating dissected colluvial mesa tops that drop off into narrow steep-walled canyons. This description exemplifies the topography of the considerable portion of the Ranch that is south of the Bluffs.

Previous Work

Multiple archaeological surveys have been conducted within the current boundaries of the B-Square Ranch and approximately 100 sites have been recorded since the mid-1950s. Of historic note, the first site to be recorded was for the 1956 San Juan Pipeline Project (Cattanach 1956; Wendorf et al. 1956). In those early years, sites were also recorded for the Hammond survey (Dittert 1958), by the San Juan County Archaeological Society, and by Peckham and Wilson (1967) during survey of areas near the

San Juan River.

In 1972, in association with the excavation being conducted at Salmon Ruins, the San Juan Valley Archaeological Project was initiated by Cynthia Irwin-Williams. Many Anasazi Pueblo II-III habitations along the three ATotal= rivers were documented and tested in order to provide research data for interpretation of Salmon Ruins. Two of the largest sites on the B-Square Ranch, the Point Site and the Sterling Site, were tested and investigated for that project. Both sites are considered to be Chacoan outliers, although Stein and McKenna (1988) expressed some doubt over the designation of the Point Site as such.

The Archaeological Society of New Mexico conducted field school excavations at the Sterling Site with Eastern New Mexico University (ENMU) from 1972 to 1974. The Sterling great house is a one-story E-shaped building, similar to Salmon Ruins but smaller in size, estimated at about 25 rooms compared to the 175 rooms estimated for Salmon Ruins. However, a true size for the Sterling great house will never be known because the northern portion is completely gone, washed into the San Juan River. The architecture and artifacts indicate the Sterling site may have been occupied by Chacoan Anasazi as early as A.D. 950 and certainly by A.D. 1040 (Bice 1983).

The largest survey of the B-Square Ranch was conducted in 1977 by the Agency of Conservation Archaeology in association with ENMU (Acklen and Greiser 1977) for a Bureau of Land Management land exchange. The project resulted in documentation of 62 sites which were subsequently relocated and reviewed by the University of New Mexico=s Office of Contract Archeology (OCA) in the mid 1980s in preparation for proposed data recovery (Hogan 1986). In 1987, OCA conducted excavation at the Box-B site, an Anasazi PII-III habitation (Hogan and Sebastian 1991) and two early Navajo sites (Hogan 1992).

At present, a dozen Anasazi Pueblo II-III habitations are known to be located on the B-Square Ranch. The largest of these include the Fort Site, Tommy Site, Point Site, Mine Canyon Site, and Sterling Site. All of these except the Fort Site exhibit an apparently early Chacoan Anasazi occupation.

The Point Site is of particular interest in terms of Chacoan Anasazi research because of its large size and impressive location on a high bench directly above the San Juan River. The dirt road that traverses the site passes through a great kiva while a great house, enclosed plaza, and elevated or tower kiva can be easily envisioned. The site is about 100 ft directly above the river in an excellent

lookout position with panoramic views to the north, east, and west. Smoke flares could have easily provided communication between the Point Site and other Chacoan Anasazi sites in the area.

Tommy Site Excavations

The two field school sessions have thus far focused on the Tommy Site, continuing previous work conducted by Tommy Bolack. He discovered the site in 1987 during construction of catch basins for control of run-off. It is located in a narrow area between the San Juan River and the base of the Bluffs, near a prominent sandstone pinnacle, Needle Rock. The Point Site, located less than a thousand feet to the northeast would have been occupied contemporaneously. All cultural evidence at the Tommy Site was overlain with from 1 to 3+ meters of sterile sand, gravel, and clay alluvial deposits derived from the copious quantities of sediment which course down from the Bluffs during rainy weather.

The Tommy Site is a large puebloan habitation complex represented by 10+ pitstructures, remnants of several roomblocks, four major trash mounds, and numerous miscellaneous pit features. In addition, approximately 100 burials were provenienced and removed from the site during Bolack's 1987-1989 excavation. Overall, ceramics and architecture are representative of the late Pueblo I through early Pueblo III time period. There is no evidence of a late Pueblo III occupation, but it is possible that these materials were washed away by flooding episodes of the San Juan River.

1999 Field School

Prior to the 1999 field school, mechanical equipment was used to remove backfill from two of the deep trenches which had been previously excavated through the site. Up to 2 m of sterile overburden was removed from a 15 x 20 m area in the undisturbed portion of the site immediately north of Trench 1. The northern profile of the trench in this area revealed a midden and an adjacent pitstructure. The exposed portion of the midden measured more than 20 m in length and 1-2 m in thickness. Excavation of 2 x 2 m units into the ashy, charcoal-rich, trash midden yielded huge quantities of ceramics, debitage, lithic tools, ornaments, and faunal material. Two features were discovered within the midden, an oxidized cobble-lined roasting pit and a human burial.

Analysis revealed the individual to be an elderly male about 55 years of age. Bone had grown over or reabsorbed all of the teeth sockets except for the incisors, but no incisor teeth were present. A whole McElmo Black-on-white bowl with double checkerboard bands painted on the interior was placed in front of his face. The bowl contained a large Escavada Black-on-white olla sherd. Only a small portion of the pitstructure, less than one-fourth, remained to be excavated. The 50-80 cm

high upper wall above the 1.08 m high by 40 cm wide plastered earthen bench was crudely faced with chunks and slabs of coarse friable yellow sandstone. One primary post support was found within the bench. It had been set at 42 cm below the floor. The unburned post was completely rotted, not viable as a dendrochronological sample. At the junction of the upper pitstructure wall and the bench, a stringer trough was present. Two floors were discovered in the pitstructure revealing a total of six sub-floor features.

Approximately 30,000 artifacts were recovered during the 1999 field school. A sample of artifacts was chosen to be analyzed including all those from the pitstructure and burial and all artifacts from one of the 2 x 2 m units placed into the midden.

Reed and Goff (2000) of Animas Ceramic Consulting analyzed the ceramics finding predominantly Pueblo II ceramic types. Statistically generated ceramic mean dates and ranges were calculated for each level of the midden and for the pitstructure. The range for the midden indicated use from A.D. 900 to 1125, although most of the trash was generated between A.D. 1000 and 1100. Two mean dates were calculated for ceramics from the pitstructure, A.D. 1038 and A.D. 1048. The McElmo Black-on-white bowl associated with the burial indicates it dates to post A.D. 1075.

Torres of Lithic Research (2000) analyzed the lithic artifacts and found that nearly all of the items are made from locally available materials. Half of the debitage is of mottled cobble chert, which is found in gravel layers of the Ojo Alamo sandstone. Tools are predominantly expedient types used for processing faunal and/or floral resources. The paucity of milling implements recovered from the midden suggests the typical Anasazi pattern of recycling milling tools into masonry. Seventeen projectile points were recovered. The analyzed points were identified as typical Anasazi Pueblo II-III small side-notched types made of jasper, chert, and San Juan agate. Hundreds of hammerstones and cores were recovered, in contrast to the three pieces of obsidian which were found.

Unmodified animal bones were plentiful with a cursory examination indicating deer, dog, rabbit, turkey, and possibly sheep, fish, and birds other than turkey. Modified bone items include awls, needles, tube beads, and gaming pieces. Numerous small burned cobs of corn measuring about a centimeter in diameter were present, as well as one larger cob observed to measure about two centimeters in diameter. Exotics found during the 1999 session include pendants of ceramic and stone. Pendant stones include jet, turquoise, and argillite.

2000 Field School

The goal of the 2000 field school session was to work in a roomblock. Bolack knew of such a structure that had been partially excavated during his work at the site. Its location on the south side of Trench 1 required only minor dozer work to clean back the trench face to *Ain situ* deposits. Four rows of rooms representing a masonry roomblock were visible in the profile, as well as another pitstructure below the eastern portion of the roomblock. In addition, another pitstructure was revealed in the cleaned-off northern face of Trench 1. Except for profiling, no work was completed on that pitstructure.

After profiling the roomblock and lower pitstructure, a backhoe was brought in to remove about 1.5 m of sterile sandy overburden in an approximate 10 x 4 m area directly over the rooms. Hand shoveling was necessary to remove another 50 cm to get down to the highest wall. At that point, 2 x 2 m grids were set up and roomblock excavation began.

The field school session uncovered one complete room and six partial rooms of a San Juan great house. Rooms were excavated down to one or more floors in all but one of the partial rooms. The major walls are large, 40 to 50 cm wide, and made of sandstone in the core-and-veneer tradition. Chinking with both small sandstone slabs and sherds is present, another good indication of Chaco-style masonry. However, the masonry style looks quite crude as compared with that found at Aztec or Salmon Ruins. Large quantities of clay mortar were necessary to stabilize the friable Ojo Alamo sandstone that turns to sand quite easily. Unofficially, the walls appear to be of the Hawley Type II style dating to the A.D. 1030-1080 time period and the ceramics appear to verify that date range.

Abundant normal habitation features including cooking and heating hearths, roasting pits, storage pits, and milling bins or metate rests were encountered on the floors. A vent tunnel was found just above the floor of one of the rooms. It leads into another room which remains unexcavated. One doorway and another walled-up doorway were discovered between the rooms. Two corrugated vessels had been set into the floor to function as storage bins. One corrugated vessel had been placed upside down under the largest wall of the room block. Several whole or nearly whole bowls were recovered from features or floor surfaces. The upper surface/floor of the largest room contained seven grinding

stations, a slab-lined hearth, and a large basin-shaped cooking pit that contained a slab-lined pot-rest and adjacent outside adobe pot rest.

An infant burial, covered with a large sherd from a corrugated jar, was discovered tucked into a small pit under the floor in the corner of a room. Several tiny beads were discovered in the dirt recovered with the small body. The beads are made of argillite, jet, and gray shale.

Approximately 4,000 artifacts/samples were recovered during the 2000 session. Analysis is scheduled for this winter.

What Have We Learned?

Natural erosion of the Ojo Alamo sandstone and Kirtland shale and clay that comprise the Bluffs is extreme. It is highly possible that many large sites may have been completely buried in the bottomland of the San Juan River where it passes near the Bluffs, while others may have been completely destroyed from flooding episodes. Perhaps the Chacoan Anasazi occupation of the Totah was an equivalent to Chaco Canyon? Here in the Totah area, a series of great house and kiva sites could have been chosen to be laid out and built along sun and moon alignments just as appears to have been done in Chaco Canyon.

Folks living at the Tommy Site, probably a suburb of the Point Site, participated in the Chacoan system and had access to a wide variety of traded goods. Trachyte-tempered ceramics, a turquoise pendant, San Juan Redwares, Tsegi polychrome ceramics, Mogollon smudgeware, and White Mountain Redwares indicate the Tommy Site occupants traded with Anasazi neighbors in all directions. Temper analysis of the 484 typed ceramics from the single analyzed midden unit revealed the following percentages of different ceramic traditions: 32% Chuska, 31% Cibola, 22% from local crushed rocks, 10% Mesa Verde, 4% Kayenta, and 1% Mogollon. The most common ceramic types from this group are: Gallup Black-on-white, Blue Shale Corrugated, Red Mesa Black-on-white, Mancos/Dogozshi Black-on-white, Escavada Black-on-white, and Brimhall Black-on-white.

The Point Site is in a spectacularly impressive setting, creating a stunning visual impact. One can see this great bench clearly on the horizon traveling all the way from the city of Bloomfield, about 10 miles

distant. It could have been considerably compelling to travelers passing through with knowledge of that great house on the point of the bluffs and the powerful folks who lived on that lofty shelf. At night, the illuminated bluffs reflected moonlight, stars, planets, and the Milky Way, showering celestial power on the people who lived, feasted, and slept below. Power was present here, a power conceivably beyond those who might control the clouds, rain, or even snow. Power aided by the moisture-laden mountains that delivered river water to be used for farming the adjacent wide sandy terraces. Here, canal irrigation could have successfully provided many years of prosperous farming, providing large crops with surpluses more than adequate for great house feasting. Assuming farming surpluses in Totah, how much was sent elsewhere during the Chacoan Anasazi reign and how was it sent?

Research Goals

Current TAP research goals focus on continuing investigation of Chacoan Anasazi of the Middle San Juan River; their communities, architecture, food, religion, and economic relationships and alliances. What was their relationship with the folks of Mesa Verde, Chaco, and Chuska? Where= the most reliable water for food production? Here in the Totah area, there is an abundance of river water, which can and did provide an abundance of food. The Totah was an area of major influence upon the Pueblo II-III Anasazi world.

We plan on pursuing the use of ground penetrating radar, satellite imagery, and other techniques for searching for buried sites, roads, and irrigation canals in the B-Square Ranch bottomland. Other goals include investigating potential astroarchaeological alignments and undertaking a population study of the 100 Tommy Site burials that were previously excavated.

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