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Salmon Ruins: Past, Present, and Future

Paul F. Reed, Center for Desert Archaeology

A CHACOAN OUTLIER WAS BUILT on the northern bank of the San Juan River around A.D. 1090. Chaco Canyon, the heartland of the Chaco world, lies 45 miles to the south of this 250-room pueblo, now known as Salmon Ruins.

This three-story pueblo had a tower kiva in its central portion and a great kiva in its plaza (see map, page 2). Subsequent occupation by the local San Juan, or Totah (a Navajo word for “between rivers” first used by Wolky Toll and Pete McKenna to describe the archaeological region around Farmington, New Mexico), populations resulted in extensive modification of the original building. These San Juan folks used approximately 200 room spaces; created multiple subdivisions of original large, Chacoan rooms; and placed more than 10 kivas into formerly square rooms and plaza areas. The occupation of Salmon Ruins between A.D. 1090 and 1280 is well established by dendrochronology, archaeomagnetic dating, and ceramic cross-dating. The site was placed on the New Mexico State Register and the National Register of Historic Places in 1970.

Excavations were conducted at Salmon between 1970 and 1978, under the direction of Cynthia Irwin-Williams, of Eastern New Mexico University, Portales. Approximately 30 percent of the site was excavated by field school crews, paid professionals, and local volunteers. In all, more than 700 individuals participated in the fieldwork. Concurrent with the field operations, laboratories were operated on the premises to wash, catalogue, and rough sort artifacts and samples. More than 1.5 million artifacts and samples were recovered from the site. In 1980, Irwin-Williams and co-principal investigator Philip Shelley compiled and edited a five-volume final report for the funding agencies (the National Science Foundation, National Endowment for the Humanities, and Four Corners Regional Commission, among others). Although comprehensive and voluminous, the 1980 report had a very limited distribution; only 100 copies were produced, mostly for universities and research libraries.

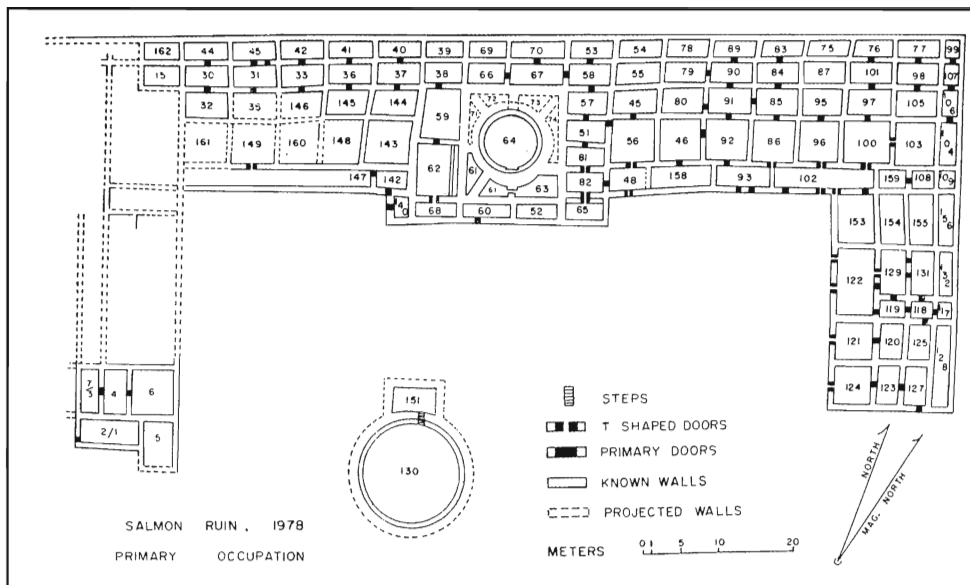


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Salmon Ruins is located north of the San Juan River in northwestern New Mexico. It is just west of Bloomfield and 9 miles east of Farmington. Nearly one-third of the rooms of this Chacoan outlier were excavated during the 1970s. The site and the adjacent Salmon Ruins Museum are open daily to visitors. This aerial view is to the west.

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Top: Map of Salmon Ruins showing the site layout during the Chacoan occupation. Bottom: Overview of Salmon's Heritage Park, which was constructed in two phases during 1990–1992, with funds from private donors, the New Mexico legislature, the Division of Contract Archaeology, and Salmon Ruins. The park is a series of reconstructed dwellings representing the diverse groups who have lived in the San Juan Basin. View is to the east.



In late summer 2001, the Center for Desert Archaeology and the Salmon Ruins Museum, which opened in 1973, began a three-and-a-half-year partnership to make a major reinvestment in this remarkable archaeological resource. A key element of the program initiated at Salmon Ruins, as part of the Center's Heritage Southwest Program, is to bring to fruition the great research effort put forth by Irwin-Williams and her staff during the 1970s. A major thrust of the research effort is a new look at Salmon Pueblo, not only as a Chacoan outlier, but in its regional San Juan context as well. Publication of a synthetic volume and supporting technical volumes is the primary goal of the Salmon Ruins project. As a preservation archaeologist at the Center, I will be coordinating this effort at the site over the next few years.

A second aspect of the partnership between the Center and Salmon Ruins is addressing the curation and pres-

ervation needs at the museum. When the San Juan County Museum Association and the people of San Juan County established the museum facility 30 years ago, they demonstrated a strong commitment to caring for the collections and materials recovered during the scientific investigations at Salmon Ruins. Now though, the effects of time – coupled with changes in curatorial standards – require the massive collection of artifacts, samples, and analytical data stored at the Research Center and Library be properly conserved. Toward that end, the Cen-

ter is supporting a conservation and curation initiative for the Salmon Ruins collections. The Center has committed to raising the funding necessary to purchase the curation materials needed to rehouse the entire collection. The Center's generous donation of \$5,000 in November 2001 marks the start of this initiative. The project is being undertaken as a volunteer effort directed by association board member and lo-

cal archaeologist Lori Reed (see page 6).

The research and curation initiatives will integrate with, and further stimulate, other programs at Salmon Ruins. In particular, long-term stabilization of Salmon Ruins and the Salmon family homestead is essential for continued high-quality visitor experiences and maintaining research values. The education program will benefit from new research results, which can be shared through museum exhibits, tours, and expanded public outreach activities.

In this issue of *Archaeology Southwest*, the past, present, and future of Salmon Ruins are explored: its past as the earliest and largest Chacoan outlier; its present as a prime example of community-based archaeology; and its future as a participant in the Heritage Southwest program, which will bring us closer to meeting our research and preservation goals.

Salmon Ruins: A Vision within a Mission

Larry L. Baker, *Salmon Ruins*

CONCERNED CITIZENS and amateur archaeologists long ago foresaw that vandalism and looting, as well as housing development, would put the cultural legacy of San Juan County, New Mexico, at risk. In 1964, their efforts resulted in the creation of the San Juan County Museum Association, which is dedicated to preserving the cultural heritage of the Four Corners area. They created the following mission statement to keep them focused on the important task before them.

The purpose of this organization shall be:

- ♦ To conserve the historic and prehistoric resources, landmarks, remains and records of the Four Corners Area (primarily the San Juan County of New Mexico and adjacent states and counties) and to make them more generally known to the public.
- ♦ To establish and maintain a museum or museums in the area for the storage, preservation and display of artifacts and records.
- ♦ To cooperate with and encourage worthy movements that have as their object the advancement of and interest in the area's historic and prehistoric cultures, native arts and crafts of the southwest and advancement of knowledge in the natural history and natural resources of the area.

In 1969, the association mobilized to acquire Salmon Ruins, on a 22-acre parcel of land. Salmon Ruins became the primary focus of the association's activities over the next 30 years.

I first came to Salmon Ruins in 1970, and was part of the first work crew at the site. My involvement continued over the next 10 years. From 1974 to 1980, my work at the site emphasized ruins stabilization. In 1993, I returned to Salmon Ruins as executive director.

A central component of the association and Salmon Ruins is the Division of Contract Archaeology (DCA). DCA was created in 1974 to provide cultural resource management services for San Juan County and the Four Corners area. DCA generates a steady source of funding to



Salmon Ruins from the air, as it appeared in 1969, prior to excavation. The mound visible in the upper center is the unexcavated tower kiva. View is to the north.

support the Salmon Ruins Museum and other association endeavors.

Funding for Salmon Ruins comes primarily from the contract archaeology and stabilization activities of DCA, along with yearly input from San Juan County. Private donations comprise a critical part of our operating base, and corporate sponsors, such as Williams Field Services, have made invaluable contributions.

In 2001, we were awarded a conservation assessment project grant from the Institute of Museum and Library Services. The project will provide insights into our conservation needs beyond the basic rehousing of artifacts and will set the stage for future conservation and curation work at Salmon Ruins.

In the immediate future, a preservation assessment of the extant architecture will provide a baseline for the ongoing task of ruins stabilization. These programs are essential for the long-term preservation of the prehistoric masonry and the remaining cultural deposits. I will direct this effort, which will be conducted by the ruins stabilization staff of Salmon Ruins.

The partnership among the Center for Desert Archaeology, San Juan County Museum Association, and other concerned individuals is a prime example of community-based archaeological preservation. Our work will preserve and protect this important, nonrenewable resource and make it available to a wider audience. For Salmon Ruins, the vision continues.

A Brief History of the San Juan County Museum Association and Salmon Ruins

Alton James, Salmon Ruins

AMID RUMORS that Salmon Ruins was to be sold and divided into plots for looting by pothunters, the San Juan County Museum Association, led by Harry Hadlock and me, agreed to buy the 22-acre property in 1968.

A few years earlier, the association had opened two small museums, in Farmington and Aztec. Historic artifacts from the general area comprised the majority of the museums' collections. Although several local residents had prehistoric artifacts to donate, the association simply had insufficient space for additional items.

The need for more storage and display space prompted us to watch for another location and facility, as well as for other preservation possibilities. When Salmon Ruins was put on the market, we recognized the great opportunity it represented. This prehistoric pueblo, rivaling the National Park Service's Aztec Ruins in size and importance, had been protected, not only by the homesteaders of the property (the George Salmon family), but also by its then owner, Charles Dustin, who was pleased to work with the association on the sale of the property.

I then visited a number of local banks until I found one that agreed to issue a note allowing for 30 signatures, representing the membership of the association, as well as employees of El Paso Natural Gas. Next, we had to persuade the San Juan County government to purchase the site with the stipulation that it would be professionally excavated and that a museum and research facility would be built for scientific work and public interpretation. In 1969, the county bought the property from us and agreed to lease it back to the association. For our part, we would design a museum, mobilize a bond issue to fund it, find an archaeologist with the stature to excavate the ruins, and obtain the necessary money to excavate the site. Now we had a tiger by the tail!

One of our board members, Harry Hadlock (an outstanding amateur archaeologist himself), knew several archaeologists, including Dr. Cynthia Irwin-Williams. We brought Cynthia to the site in 1970, and she was surprised



Photograph of Cynthia Irwin-Williams and Alton James, in front of the Salmon house in 1970.

at its size. Looking around, she said a few unprintable words, and then remarked, "I'll have to think about this." She came back a few minutes later and agreed to do it. At that point, there was no doubt in my mind that we chose the right person for the job. Cynthia and I began a wonderful friendship that would flourish until her passing in 1990. Her incredible energy, as well as her ability to raise money for the project, perfectly

complemented the vision and the goals we had for Salmon Ruins.

In 1970 and 1971, Cynthia brought her crews to the site for preliminary fieldwork, including clearing the site of dense brush, making a map, and initial testing. In 1971, a county bond was passed to build the museum and research center, which opened to the public two years later. In 1972, funding for a major excavation was secured, and full-scale work began. Concurrent with the excavation, Larry Baker developed a pilot project for ruins stabilization in 1973; it became a comprehensive program in 1974.

Fieldwork at Salmon continued through 1978, and consecutive sessions of stabilization ended in 1980. However, due to funding constraints, a final report on the excavations was never prepared. The excavated collections and all unanalyzed samples were returned from Eastern New Mexico University to the museum and have remained at the museum curation facilities. Unfortunately, all parties involved in this endeavor have been overwhelmed by the magnitude of the curatorial tasks, given the number of artifacts recovered from just one-third of the site.

This is not to imply that no work on Salmon Ruins and its collections was conducted during the 1980s and 1990s. For example, Larry Baker has directed seven stabilization projects over the last 30 years, including the last major stabilization effort in 1996. Additionally, a separate storage building for Salmon artifacts was constructed by the San Juan County Home Builders Association in 1985, and various museum exhibits and displays have used Salmon Ruins artifacts to explain the site's excavation and interpret its Chacoan and San Juan prehistory.

Cynthia Irwin-Williams: A Profile

Lynn Teague, Arizona State Museum



Cynthia Irwin-Williams was born in Denver, Colorado, on April 14, 1936, and died on June 15, 1990, in Reno, Nevada.

IN HER SHORT 54 YEARS of life, Cynthia Irwin-Williams left an important professional and personal legacy. I met Cynthia when I arrived in New Mexico in 1968, to marry George Teague and to work on Cynthia's Anasazi Origins Project. George had dropped out of college, and Cynthia let him live in her laboratory in Albuquerque while she got him back into school in New Mexico.

Cynthia's involvement in archaeology began in high school, when she worked with

H. Marie Wormington and the Colorado Archaeological Society. Her academic training in anthropology began at Radcliffe College in 1953, where she was graduated magna cum laude in 1957. At Harvard University, she encountered considerable resistance to the idea of a female archaeologist, and particularly to a female archaeologist conducting fieldwork. At that time, laboratory and library research were considered the only appropriate places for women in archaeology, but Cynthia realized that nothing less than full participation in the discipline would satisfy her.

Cynthia's dissertation research was based upon excavations at Magic Mountain in Colorado, work that received both financial support and encouragement from J. O. Brew, then director of the Peabody Museum at Harvard. In 1963, Cynthia was one of the first three women in any field to receive a doctorate directly from Harvard, rather than from the associated institution for women, Radcliffe.

Cynthia's initial research focused on early sites. In 1959 and 1960, she worked in the highlands of central Mexico. She returned to Mexico in 1962, for her work at Valsequilla,

in the state of Puebla. Her interdisciplinary work there was groundbreaking, but the site became controversial for its early (circa 20,000 B.P.) dates. At the time, these dates fell far outside the boundaries of scholarly orthodoxy. However, Cynthia was never reluctant to go where archaeology led her, despite prevailing ideas.

In 1970, the San Juan County Museum Association approached Cynthia about excavating a major Chacoan outlier, Salmon Ruins. The Salmon excavations were possible only because of Cynthia's exceptional energy and love of archaeology, accompanied by her amazing ability to obtain grant funding. When she agreed to take a look at the site, she had no idea how enormous the job would be. However, by the time she committed herself to the task, she was well aware that she was changing the focus of her research for many years to come, moving from her previous Archaic studies to the investigation of complex Puebloan sites.

Coming to the work at Salmon from her studies of early hunters and gatherers, Cynthia developed methods

that were innovative for the time. She emphasized careful control of stratigraphic relationships within and between rooms. She also thoroughly integrated ethnobotany, faunal studies, and other specialties into her research. She experimented with computerization of data in the field laboratory, recognizing the great promise of this technology for dealing with enormous data sets such as those generated by the Salmon excavations.

The Salmon excavations were more than a scientific enterprise, however. For Cynthia, it was very exciting to be able to work with enthusiastic local residents to develop the site and the San Juan County Museum and library facility,

ensuring that the Salmon work would provide a foundation for many years of public education.

Throughout her career, Cynthia Irwin-Williams displayed an energy and dedication to archaeology that few have equaled. She was also a loyal and generous friend to colleagues and students.



Cynthia Irwin-Williams excavating at Salmon Ruins, 1972. View is to the north.

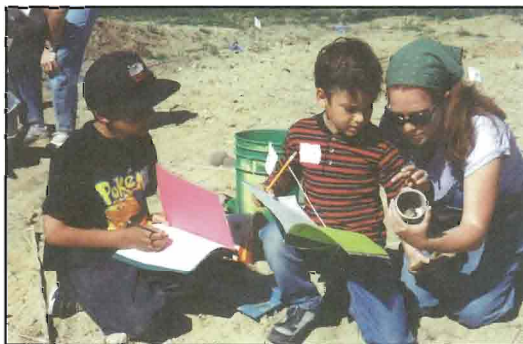
Public Education and Outreach

Tristan Kwiecinski, Salmon Ruins

MAKING LEARNING FUN is the mission of the Salmon Ruins education department. We believe that advancing awareness and understanding of the area's historic and prehistoric cultures, native arts, and natural resources should be nothing less than enjoyable.

A popular spot for field trips, Salmon Ruins offers free admission to all educational groups. Currently, we host approximately 2,000 school children (K-12) per year in our tours and outreach programs. Moreover, our visitors come from a broad spectrum of ethnic backgrounds and localities. Children who visit the museum independent of a school trip can visit our Kids' Corner and pick up a Junior Archaeologist booklet and color pictures, as well as explore our hands-on artifact drawers.

A standard one- to two-hour school tour starts with an introduction to Pueblo lifeways using our current mu-



Kids and archaeologists at work during Kids' Dig, September 2000.

seum exhibits. This is followed by a tour of the site, the Salmon family homestead complex, and the Heritage Park (see photo on page 2). Students also grind corn using stone tools and play Native American games. All tours emphasize respect for, and preservation of, nonrenewable cultural resources.

To further reinforce this message, we have developed activities that deal solely with the practice of archaeology. The first is an outreach program entitled Dig for the Past. Student groups learn basic excavation and analysis techniques in order to appreciate the importance of context to archaeologists. The second program is our Kids' Dig, an excavation of a simulated site that pairs professional archaeologists with kids for a five-hour lesson about the goals and techniques of archaeology.

Salmon Ruins sponsors a variety of exhibits, lectures, and open houses. Each May, we celebrate Heritage Preservation Week with an open house, a Kids' Dig, free tours to the Dinétah (the area of initial Navajo settlement in the American Southwest), and craft demonstrations.

Salmon Collections Preservation

Lori S. Reed, Animas Ceramic Consulting

TIME, NEGLECT, INSECTS, AND RODENTS are a combined threat to the collections from Salmon Ruins. Most of the Salmon material is still housed in original, nonarchival bags and boxes from the 1970s excavation and laboratory operations. Boxes are falling apart, and bags are deteriorating. Original site tags are turning yellow and becoming unreadable with age. Many boxes contain evidence of rodent feces and damage from chewing and gnawing. As the boxes and bags break, artifacts are mixed, heavy artifacts fall on top of delicate items, and critical contextual information is lost forever. To address these curation problems, the entire Salmon collection must be rehoused in archivally stable materials.

In the spring of 2001, I organized the Salmon curation committee in an effort to recruit and coordinate volunteers for a large-scale Salmon curation project. To determine the types and amounts of supplies needed, we first compiled an inventory of the number of boxes and their contents. Because the boxes were in poor condition and

box labels did not accurately indicate their contents, each box was opened, its contents were identified, and a temporary label was applied.

The curation committee and a group of volunteers began rebagging and reboxing the Salmon collection in February 2002. The first phase of curation focuses on the faunal bones. So far, our volunteers have counted and curated over 40,000 pieces of bone, which will be sent to Kathy Roler Durand, of Eastern New Mexico University, for analysis. We are also compiling a curation database that includes all the original bag tag information, field specimen numbers, and artifact counts. Another six months will be necessary to complete the curation of the faunal materials. We will then move on to other parts of the collection.



Photograph taken inside Salmon's Home Builders Association storage facility showing the deteriorated condition of the Salmon collections.

Salmon Ruins: From Cynthia Irwin-Williams's Vision to a Central Place in the Totah

Paul F. Reed, Center for Desert Archaeology

WHERE IS THE SITE? asked Cynthia Irwin-Williams as she stood with Alton James on a huge, earthen mound during her first visit to Salmon Ruins. "You're standing on it," he replied.

In 1972, Irwin-Williams coined the term "Chaco phenomenon" when discussing the sites in Chaco Canyon and its outliers, including Salmon Ruins. The model she developed through research at Salmon represents one of the first attempts to comprehensively examine Chaco. Her main hypothesis was that the climate in the Chaco area began to deteriorate in the A.D. 900s, and that the Chacoan populace responded by creating new technology to improve food production, as well as by expanding its geographic resource base through migration, colonization, and development of an extensive, profitable trade network. Irwin-Williams suggested the Chacoan occupation at Salmon Ruins reflected preplanning in construction and engineering on a large scale, directed by specialists with considerable social authority. She also thought planning and careful design of the social, economic, and ideologic structures at Salmon went hand-in-hand with the physical layout of the pueblo. Salmon provided Irwin-Williams with an ideal laboratory in which to test her ideas about Chacoan society. To her, Salmon represented Chacoan colonization of the San Juan–Totah area in a well-watered setting.

The Chacoan era at Salmon began about A.D. 1090. As originally designed, Salmon was an E-shaped, three-story pueblo, with approximately 150 ground floor rooms, 70 to 80 second-story rooms, perhaps 20 third-story rooms, an elevated tower kiva built into the middle of the pueblo, and a great kiva in the plaza. Although Irwin-Williams believed that Salmon had a third story, her excavations provided no supporting evidence. However, more recent research has revealed that she was correct. Photographer Timothy O'Sullivan visited Salmon Ruins in 1874, as part of a government-sponsored survey led by Lt. George W. Wheeler. O'Sullivan identified Salmon as "a characteristic ruin of the Pueblo San Juan." His photographs depict a much more desert-like setting for Salmon than exists today and, more important, clear evidence of a third story at the site.

Chronology is a primary area of renewed research at Salmon. Although tree-ring dating at Salmon has produced more than 300 cutting dates, we have cutting dates for only three rooms and the great kiva that date after A.D. 1116. To remedy this situation, Tom Windes of the National Park

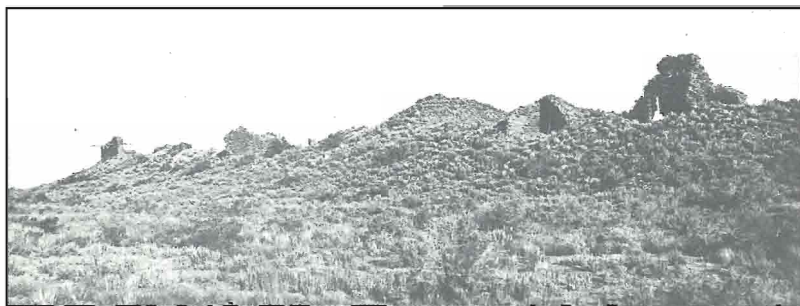


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Close-in aerial shot of Salmon Ruins. View to the west.

Service has initiated a sampling program to obtain more dates. We are also re-examining the existing data and interpretations. Irwin-Williams's original sequence dated the Chacoan or Primary occupation from about A.D. 1088 to 1140. This was followed by the poorly dated Intermediate period, from A.D. 1140 to 1185. Then, the Secondary, sometimes called the Mesa Verde, period, followed from A.D. 1185 to about 1280.

Based on a reassessment of the dating and site remodeling, I would suggest the Chacoan occupation dated from A.D. 1090 to 1115. I would further suggest when the Chacoan leadership and social unit left Salmon around 1115, they went 8 miles north to Aztec Pueblo. (Steve Lekson initially suggested this Chacoan movement to Aztec as part of his larger "Chaco meridian" discussion.) Tree-ring dates from Aztec reveal initial construction between A.D. 1105 and 1115, with additional activity between A.D. 1117 and 1120. The changes in architecture and room use after A.D. 1115, then, reflect the dominance of local San Juan–Totah groups and families, who remodeled the site to meet their needs. Next, I would combine the previously



Top: Historic photograph of Salmon Pueblo taken in 1874, by Timothy O'Sullivan of the Wheeler Survey. View is to the south-southeast. Note the tall, standing architecture along Salmon's northern wall (National Archives Photo No. 106-WA-417). Bottom: O'Sullivan photograph of Salmon Ruins from 1874. Note the treeless, desert setting, in contrast to the modern, tree-dominated landscape at the site. View is to the north-northeast (National Archives Photo No. 106-WA-415).



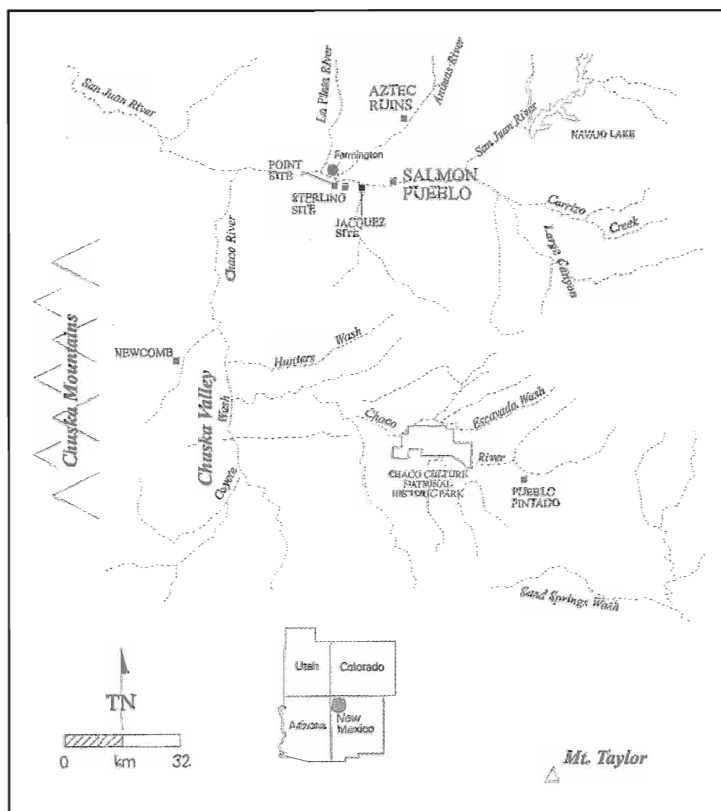
the Totah area. Development of a regional settlement database is underway. Study of the area immediately surrounding Salmon reveals surprisingly few contemporary sites: an isolated great kiva lies 100 m to the west, and three small pueblo sites lie within 1 km of the site. When we examine a larger, 6-km by 6-km area, we find 12 habitation sites that may have been contemporaneous with Salmon. Farther down the San Juan, the Jacquez community lies about 6 km to the west. Jacquez consists of a Chacoan structure with at least 50 rooms and a great kiva. The Sterling site lies another 5 km west of Jacquez and comprises a smaller Chacoan great house of perhaps 30 rooms, a blocked-in kiva, and a large plaza kiva. Sterling was probably built first, and its inhabitants may have moved to Salmon in the late 1000s. Jacquez appears to occupy a middle position chronologically and may have overlapped occupations at both sites. Salmon was probably built last. Because it is the largest of the sites, it is reasonable to infer that Salmon absorbed populations from smaller sites in the area.

Clearly, Salmon Ruins can be understood only by appreciating its multiple facets. Drawing on our new research, the end of the Chaco occupation at Salmon appears to have occurred around A.D. 1115. At this time, Salmon changed dramatically, as illustrated by its architectural transformation and evolving uses of rooms. With the Chacoans gone from Salmon, the

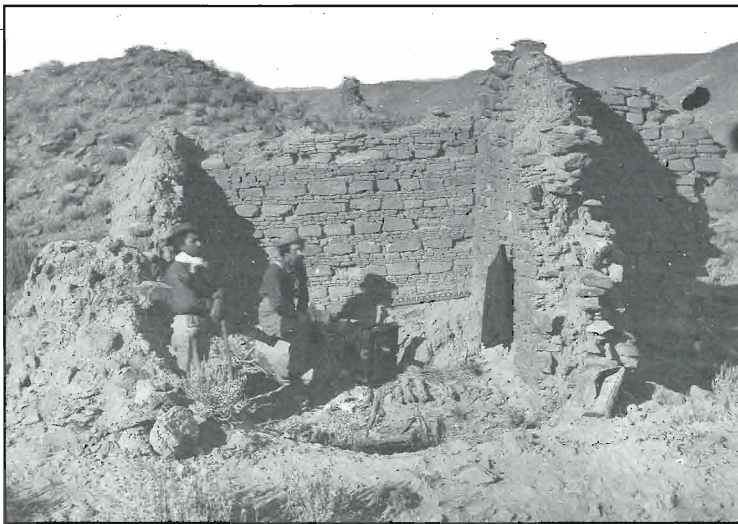
divided Intermediate and Secondary occupations into a long and varied San Juan-Totah use of the site from A.D. 1115 to 1280. Additional research at Salmon will focus on a much fuller description of this later period of occupation, which has received little previous attention and is not well understood.

Another important topic for new research at Salmon is settlement and regional organization in

Regional map of northwestern New Mexico showing Salmon Ruins, the Totah area, and Chaco Canyon to the south. Note other Chacoan sites west of Salmon, including Jacquez, Sterling, and the Point site.



site continued as the largest pueblo on the San Juan until its abandonment in the late A.D. 1200s. This period, covering some 170 years, merits additional study. During this time, the Pueblos of the Totah emerged as a political entity, with regional centers at Salmon, Jacquez, and the Point site on the San Juan River; Aztec Ruins, the Blancett site, and the Flora Vista site on the Animas River; and Morris sites 39 and 41, and the Holmes group on the La Plata River.



Left: O'Sullivan photograph from 1874, showing second-story room in Salmon Pueblo. Note the masonry style in the room, described by archaeologists as Type III. View is to the west (National Archives Photo No. 106-WA-436). Right: O'Sullivan photograph of Salmon Pueblo from 1874. The photograph shows one of O'Sullivan's helpers standing in a second-story doorway and reveals the third-story wall construction above. Note the sealed doorway on the right. View is to the north (National Archives Photo No. 106-WA-431).

Cynthia Irwin-Williams's research at Salmon provided a substantial base upon which our renewed research rests. Her theoretical and methodological rigor helped launch the regional school of Chacoan studies. Furthermore, her involvement at Salmon Ruins allowed not only

for the excavation of the site, but also for its purchase and long-term preservation as a property of San Juan County, New Mexico. With the research recently begun anew at Salmon, we hope to make good on the work she initiated by producing a series of publications that honors her legacy.

Ruins Stabilization and Preservation

Larry L. Baker, Salmon Ruins

AN INTEGRAL PART of the services provided by the Division of Contract Archaeology (DCA) at Salmon Ruins is the stabilization program. I developed this program over the last 30 years, through working at Salmon and other sites in the area. My crew consists primarily of Navajo individuals, who are highly skilled as a result of decades of practical experience.

Ruins stabilization seeks to intervene to slow the processes – natural and human – that damage a site. When a site is preserved for the public, various tradeoffs must be considered. For example, once a site has been stabilized, it may actually incur more damage, of a different kind, due to the higher number of visitors to the site and the exposure of previously buried portions of the site. In addition, stabilization causes some alteration of the original site; for example, using modern mortar or backfilling to strengthen walls. The goal of ruins stabilization is to strike a balance between protecting a site and making it accessible to visitors.

Our most recent project was the stabilization of Truby's Tower, a spectacular Gobernador phase (eighteenth century) Navajo pueblito site situated on an eroded boulder in the Dinétah. The site lies on State of New Mexico land, and work at the site was directly funded through the New Mexico legislature. Our work focused on reinforcing the structural integrity of the pueblito through replacement of loose rock and mortar, and backfilling areas subject to erosion.



Three of the four rooms of unique and fragile Truby's Tower are perched precariously atop this large boulder. In 2001, prior to its stabilization by DCA, the site was on the New Mexico Heritage Alliance's Most Endangered Places list.

Totah Archaeological Project

Linda Wheelbarger, San Juan College

RICH IN RESOURCES, the 12,000-acre B-Square Ranch, owned by Tommy Bolack, includes expansive irrigated fields, a quality riverine environment, and rugged canyons and mesas. The ranch is located directly south of Farmington and spans both sides of a 5-mile segment of San Juan River bottomland. More than 100 sites have been documented inside the ranch boundaries. The largest of the Pueblo II-III habitation sites include the Point, Sterling, Mine Canyon, Fort, and Tommy sites. The Point site is of particular interest to Chacoan researchers due to its large size and impressive location on a high bench overlooking the San Juan River.

Bolack, in cooperation with the San Juan College Cultural Resource Management Program, initiated the Totah Archaeological Project (TAP) in 1999, as an archaeological research project and field school. Although the field school is a large component of the TAP, Bolack is also interested in making major contributions to research projects focusing on the Totah area. The TAP is financed jointly by the San Juan College Foundation and Bolack, who also owns and manages the Bolack Minerals Company and the Bolack Museum Foundation. Yearly TAP budgets provide funds for the operation of the six-week field school, analysis of the recovered artifacts and samples, research on special topics, publications documenting the results, an internship, and community learning center classes.

As co-director of San Juan College's Cultural Resources Management Program, I coordinate the field school. Our three field sessions have thus far focused on the Tommy site, a large habitation complex represented by more than 10 pit structures, remnants of several roomblocks, and four large, deep trash middens. This completely buried site was discovered by Bolack in 1987, while he was building a retention dam. The site is located at the

base of the bluffs on the southern side of the river near a prominent sandstone pinnacle, Needle Rock, which contains several significant Puebloan petroglyph panels.

Thus far, field school excavations at the Tommy site have been conducted on a deep trash midden, a large earthen-walled pit structure, and a masonry roomblock. Our excavations have yielded nearly 40,000 artifacts and samples. Lori Reed and Joell Goff of Animas Ceramic Consulting have conducted analysis of the ceramics and found

predominantly Pueblo II ceramic types (see page 11).

The masonry roomblock has at least four rows of rooms. Five complete rooms and five partial rooms have been excavated during the field school. The structure's main walls are 40 to 50 cm wide and made of sandstone and abundant clay mortar. The masonry style is crude and unrefined compared with that at Aztec or Salmon



Field school students must descend a steep earthen ramp in order to reach the deeply buried deposits of the Tommy site. Five to nine feet of sterile soil originally overlay this site.

Ruins, but is quite similar to that found in the small houses located just east of Casa Rinconada in Chaco Canyon.

We initiated an internship program using TAP funds following the second field school session. Through the internship, Fort Lewis College student Ben Bellorado (from the 2000 field school) conducted an analysis of gray ware rim sherds for a class project. The analyzed sherds came from the collection of approximately 30,000 to 40,000 sherds that Bolack recovered during his 1987–1988 excavations at the Tommy site. An analysis of the black-on-white sherds from that collection was begun during the following year's internship.

To test whether other sites are buried in the floodplain fields of the B-Square Ranch, Lew Somers of Geoscan Research in Durango, Colorado, was brought on to conduct a remote sensing test project. A 400-m by 10-m transect placed in the alfalfa field at the mouth of Stewart Canyon revealed probable structures along nearly the entire length of the transect. Other transects placed in the field at the mouth of Mine Canyon produced similar results. This year, a backhoe will be used to test whether these magnetic anomalies are structures and, if so, how deeply they are buried.

Ceramic Studies in the Totah Area

Lori Reed, Animas Ceramic Consulting

LARGELY OVERSHADOWED by two well-known prehistoric cultural complexes – Chaco to the south and Mesa Verde to the north – the Totah area has rarely been considered in its own right. Ceramic studies, for example, often utilize pottery types or temper characterizations that were developed for these adjacent areas. As a result, pottery production and exchange within the Totah area are not currently well understood.

The excavations by San Juan College at the Tommy site (see page 10) provide an opportunity to begin addressing this problem. Animas Ceramic Consulting is analyzing the Tommy site ceramics. We began by looking at ceramic production techniques and raw material use through time. By examining the kinds of temper materials that ancient potters added to their clays, we have identified two ceramic traditions at the Tommy site. Initially, sand-tempered ceramics were dominant, but they were replaced, through time, by ceramics with temper made from crushed diorite cobbles.

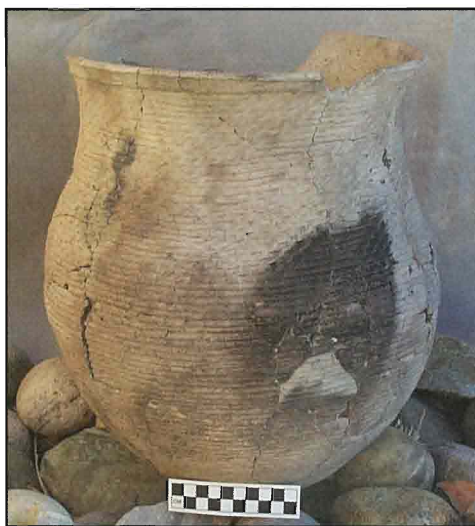
This pattern is not too surprising because it is known that Chaco ceramics are generally sand tempered and Mesa Verde ceramics are tempered with crushed rock, suggesting that the pattern we observed reflects the general shift from an initial Chacoan dominance to a later Mesa Verdean

dominance in regional ceramic traditions. However, things have become much more interesting as we have sharpened our focus on techniques that allow us to identify local pottery production. We have collected local clays and tempering materials in the vicinity of the Tommy site, and we are

initiating the systematic analysis of ceramics at this more refined level. Initial results have been promising, suggesting that we will be successful in separating local ceramics from nonlocal ceramics (see photo at left).

Once we can readily distinguish local pottery production technologies, much more refined research issues can be addressed. Documenting shifts in regional social and economic relationships, better understanding the nature of Chacoan and Mesa Verdean influences in the Totah, and characterizing the unique Totah Pueblo culture are a few productive issues of interest.

The work at the Tommy site is providing a strong beginning to this research. Salmon and Aztec ruins represent the largest existing ceramic collections in the Totah area that can be re-examined on a level comparable with the current research at the Tommy site. This would represent an unprecedented opportunity to examine and interpret the Puebloan history of the Totah, and it is this broader vision that we hope to realize in the future.



Corrugated storage jar from the Tommy site. This vessel is a locally produced, Totah variety of the Mancos Corrugated type.

See the Center for Desert Archaeology website for more information: <<http://www.cdarc.org>>

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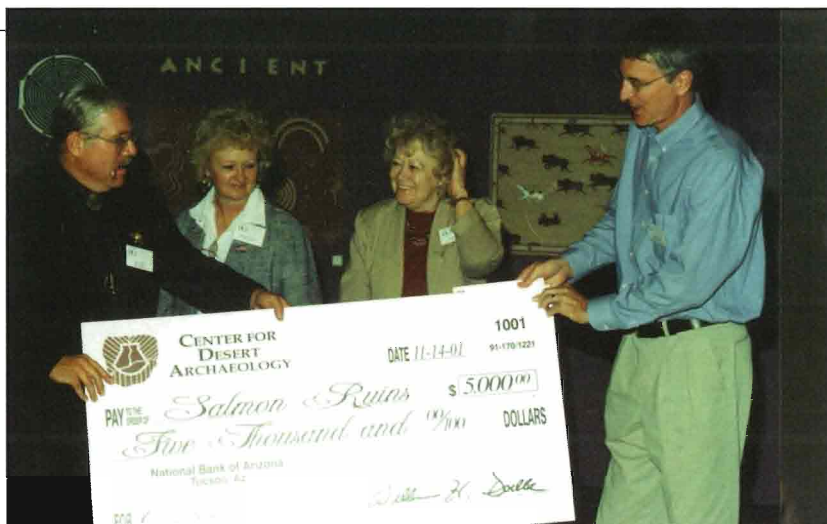
BackSight

THE STORY OF SALMON RUINS is one of community-based archaeology. When we at the Center were searching for a partner for our Heritage Southwest program, we were attracted by the degree to which this site is a part of its local community (see our website for more about Heritage Southwest).

We are now nearly a year into our planned three-and-a-half year partnership with Salmon Ruins. Our partnership theme is "Reinvesting in Salmon Ruins." As this issue of *Archaeology Southwest* makes clear, there is a great need for reinvestment. Our highest priority is completing the unfinished task of publishing a research report on the Salmon excavations.

At least as critical is the need to preserve the collections. The Center's contribution of \$5,000 was intended to "prime the pump" of a collections preservation process that will cost nearly \$200,000 to complete. Under the professional guidance of Lori Reed, that initial contribution has again tapped the volunteer spirit that ran so strongly in the initial years of the Salmon program.

The collection preservation program at Salmon is just one example of the transforming effects of community-based archaeology. It illustrates how archaeology can touch the lives of many people on a daily basis. When local citizens search out, seek to understand, and actively work to preserve the history and archaeology of their own community, the outcome is a corps of lifelong stewards. The passion of local ownership, when integrated with the ex-



In November 2001, I had the pleasure of presenting a "really big check" in the amount of \$5,000 to initiate the Salmon Collections Preservation Initiative. Meeting the Salmon Ruin supporters and hearing about their passion for the site was inspirational. From left to right: Larry Baker (Salmon Ruins), Barbara Carruthers (San Juan County), Mary Jo Albin (San Juan County Museum Association board member), and Bill Doelle.

pertise of professionals who are committed to public outreach, is the key to making preservation archaeology work on a growing geographic scale.

The Center is developing another partnership in the Upper San Juan region. We are working with Dave Simons and Jim Copeland of the Farmington Bureau of Land Management (BLM) to facilitate a synthesis of the Fruitland Project, a very large cultural resource management project on BLM land between Farmington and the Colorado border that has spanned more than a decade. The Center's role in the Fruitland Project is limited. However, to serve as a catalyst for research synthesis and broadened public outreach simply expands the scale of the community-based archaeology that is our focus at Salmon Ruins.

William H. Doelle
President & CEO
Center for Desert Archaeology

back sight (băk sīt) *n.* 1. a reading used by surveyors to check the accuracy of their work. 2. an opportunity to reflect on and evaluate the Center for Desert Archaeology's mission.

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