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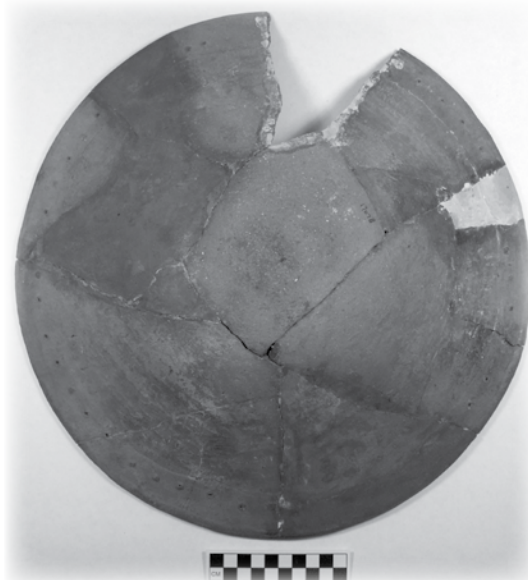
PERFORATED PLATES, MIGRATION, AND ROOSEVELT RED WARE

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Perforated plate recovered from Hilltop House, AZ V:9:68 (ASM). Photograph by Mathew A. Devitt, used courtesy of the Arizona State Museum (Catalog No. 17078).

Introduction

Perforated ceramic plates have intrigued southwestern archaeologists since the late 1800s, when they were first encountered at the Classic period platform-mound sites of the Phoenix Basin and the protohistoric villages of the Hopi Mesas. This distinctive vessel form first appeared in the Kayenta region of northeastern Arizona and southeastern Utah sometime after A.D. 600, became very common in that area by A.D. 1050-1150, and spread southward after A.D. 1250. Residues, contextual clues, and usewear suggest that perforated plates were used as base-molds in pottery making, and/or as potters' turntables. Southwest-

ernists often refer to such tools by the Tewa term, *puki*.

The results of recent sourcing studies demonstrate that rather than having been exchanged between regions, perforated plates most often were made locally. The local production of such mundane household tools – objects unlikely to have been copied by neighboring groups – represents compelling evidence of the presence of northern immigrants at sites in many areas of central and southern Arizona, as well as western New Mexico and northern Chihuahua. Because perforated plates and other traces of northern immigrants are associated with evidence of local production of Roosevelt Red Ware

continued on page 2



Perforated Plates, *continued from page 1*

("Salado polychrome"), a strong connection can be made between groups of northern ancestry and the origin and spread of the ceramic component of the Salado phenomenon. Since the 1920s this idea has been at the center of debate regarding the archaeology of the late Precontact period.

Old Pueblo Archaeology

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In this Issue

Perforated Plates, Migration, and Roosevelt Redware
by Patrick D. Lyons and Alexander J.

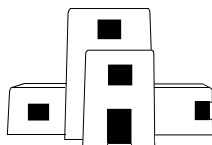
Lindsay1

Kino Mission Tours

by James S. Griffith.....6

Dear Darla.....8

Volunteer Spotlight: Sherry Paris.....9



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Perforated Plates

Perforated plates are shallow plain ware, corrugated, or obliterated corrugated ceramic vessels that exhibit round holes, punched from the concave (interior) surface through the convex (exterior) surface before the vessel was fired. The holes usually penetrate the first or second structural coil below the rim. Most vessels display a single row of perforations that extend around the entire circumference. The holes themselves are usually uniform in diameter but not necessarily evenly spaced.

Occasionally, plates exhibit two or more concentric rows of perforations. Others bear the usual single row of peripheral holes as well as a cruciform pattern, whereby the plate is "quartered" by rows of perforations that run across the center of the vessel. A perforated plate recovered from looters by the Hopi Tribal Police bears an incised design on its concave surface. This is the only known example of incised decoration associated with this vessel form.

Perforated plates range in size from 13.5 cm to more than 60 cm in diameter, although most measure between 20 and 30 cm across. The largest specimens known were recovered from Las Colinas, in the lower Salt River Valley. Many exhibit a "folded rim" or "rim coil." The holes exhibited by perforated plates are sometimes punched through the rim coil but more frequently are located below this feature if it is present.

Functional Inferences

Frank Cushing, upon finding perforated plates at the Phoenix Basin sites of Los Muertos, Los Hornos and Pueblo Grande, was the first to suggest uses for these objects: chafing dishes or jar covers. Jesse Fewkes later asserted that perforated plates were used to offer food or corn meal to a water deity. It is unclear, however, whether he independently arrived at this interpretation or was influenced by clues from Hopi consultants. He also noted that they resemble vessels used by the Hopi to ritually sprinkle water. He guessed they may also have been used to sift the sand forming the basal layer of Hopi ritual sand paintings.

Lyndon Hargrave reported that Hopi workmen on his crew at Kokopnyama hypothesized that perforated plates were associated with an extinct ceremony and that the perforations functioned as receptacles for flower stems. Hopi "flower mounds," however, are usually hemispherical and are perforated over the entire convex surface. John Hohmann and his colleagues suggest that prayer feathers may have been tied to the rims of perforated plates. Hopi prayer feather holders, however, support a single prayer stick (*paaho*) to which a prayer feather is tied, and are made from sand or unfired clay.

Charles Di Peso recovered 175 perforated plate fragments and two complete specimens from Reeve Ruin, in the San Pedro River Valley. One of the whole plates was found below one of the open ends of a trough metate. Di Peso's illustration of different artifacts in use indicates that he interpreted this relationship to mean that perforated plates were used to



catch corn meal as it was ground. Notes associated with photographs of the incised perforated plate discussed above indicate that this object was used to hold corn meal. The source of this inference, however, is unknown. Recently, Linda Cordell reported that an experienced basket maker told her that perforated plates could have functioned as implements that aid in the beginning stages of the basket-weaving process.

Although each of the perspectives discussed above has some appeal, many lines of evidence, including residues, contextual clues, usewear, and ethnographic analogy, point to the conclusion that perforated plates were used as base-molds in pottery making, and/or as potters' turntables. A number of perforated plates have been found with unfired, tempered clay adhering to them. Examples have been recovered from the Hopi Mesas, the Mogollon Rim country, Point of Pines, and the San Pedro Valley.

Reconstructible plate specimens (one perforated and one unperforated) recovered by Di Peso from José Solas Ruin, in the San Pedro Valley, exhibit traces of unfired red pigment in the form of fingerprints and smudges, as if a potter had gripped them with slip-stained hands. A fragment of a second

recovered from "potters' burials" among other objects associated with ceramic production (pigments, ground stone tools, clay, polishing stones, and worked-sherd scrapers).

Another relevant point can be made regarding recovery context. Perforated plates and fragments thereof have been found in a wide variety of archaeological deposits, including burials, middens, trash-filled rooms, pithouses, kivas, and plazas. The lack of a clearly identifiable ritual discard pattern is consistent with the conclusion that perforated plates primarily were used to perform an everyday household task, such as pottery making.

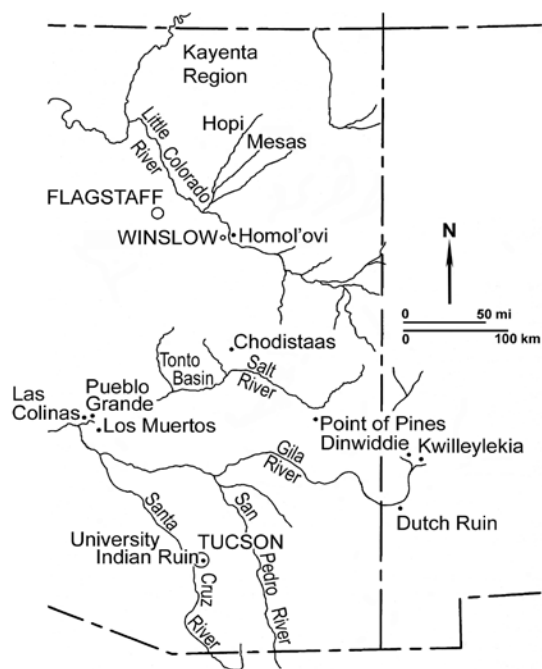
Andrew Christenson notes that the convex surfaces of many whole or reconstructible perforated plates exhibit areas of moderate and heavy abrasion or encircling striations, apparently associated with rotation of the vessel during pottery making. Although excess water accumulation seems an unlikely problem for Pueblo potters using traditional methods, two ethnographic examples (potters at Santa Clara Pueblo, and Nampeyo, the famous Hopi-Tewa potter) lend support to the idea that holes in a puki allow for drainage or evaporation.

Despite the strong case that perforated plates were used as potters' turntables, the function of the holes remains debatable. Helen Crotty suggests that the holes roughened the surface of the vessel for easier gripping with clay-covered hands, facilitating the turning of the vessel during pottery making. Alternatively, she hypothesizes that the fairly regularly distributed holes may have helped potters to evenly divide space when applying the major painted lines of a decorative layout. The fact that perforated plates have been recovered with fibers strung through some of their holes suggests to Crotty that cordage may have been strung over the unpainted vessel to mark off spaces for the layout of a painted decoration. However, modern potters usually remove the pot from the puki before painting. They often paint pots "upside down" or hold vessels at an angle to the ground, due to the physics of natural pigments, the type of brush used, and the demands of convex or concave painting surfaces.

Uncertainty regarding the holes is compounded by four facts: (1) rare plates have been recovered that display painted "holes" in place of true perforations; (2) some of the "holes" in perforated plates became clogged with clay as the perforator was removed and/or were partially obstructed by post-perforation smoothing; (3) the existence of a plate from Black Mesa with "pinpricks" where the holes should be; and (4) most sites that have yielded perforated plates have also yielded unperforated plates. Emil Hauray, though convinced of the use of perforated plates as pottery making tools, considered the possibility that the holes represented decoration.

Immigrants from the North and the Origin of Roosevelt Red Ware

Migration was a key ingredient in the first models accounting for the dramatic changes that marked the shift from the Preclassic period to the Classic period in southern



Map of eastern Arizona and western New Mexico showing the approximate locations of regions and some sites mentioned in the text. Base map drawn by Ronald J. Beckwith.

perforated specimen bearing similar traces was recovered as a result of recent excavations at the site. A cursory examination of perforated plate fragments recovered from the Davis Ranch site yielded six additional examples of this phenomenon. Four different fragmentary perforated plates found at Point of Pines Ruin have red pigment adhering to them.

The strongest support for the thesis that perforated plates were used as pottery making tools was found at RB568, in the Kayenta area, where whole specimens were



Arizona. Specifically, early researchers attributed changes in ceramics, treatment of the dead, and architecture in the Tonto Basin, the Lower Salt River Valley, and the Middle Gila River Valley to an influx of northerners. Winifred and Harold Gladwin coined the term “Salado” to refer to a group of people who developed unique architectural and ceramic traditions in the Tonto Basin and eventually spread these traits throughout southern Arizona, southwestern New Mexico, and northern Mexico as a result of a series of migrations.

As more data have accumulated, archaeologists have become increasingly convinced that many of the traits early workers insisted arrived in the Hohokam region from the north as a complex instead developed locally at different times and at different rates. In addition, many researchers have called attention to the variability among sites labeled “Salado,” noting that the only characteristic that ties them all together is Roosevelt Red Ware.

Patricia Crown has done the most to establish the connection between immigrants from northern Arizona and the origin of Roosevelt Red Ware. She argues that Roosevelt Red Ware represents a product of part-time specialist, immigrant potters – an attempt by economically and socially marginal newcomers to gain a more secure foothold among their host populations in the context of established land tenure systems. Although Crown favors the idea that production

of the ware quickly spread beyond the immigrants who developed it (in the context of a religious movement), she pointed out a way to frame an alternative argument: that the manufacture of these pottery types remained tightly bound to immigrant groups and was spread as a result of waves of migration. Crown suggested examining the co-occurrence of key markers of northern immigrants, including perforated plates and Maverick Mountain Series pottery, and evidence of the local production of Roosevelt Red Ware.

The Maverick Mountain Series was named for the Maverick Mountain phase Kayenta or Tusayan immigrant occupation at Point of Pines Pueblo. Originally defined as vessels of Kayenta and Tusayan types made using materials indigenous to the Point of Pines region, the Maverick Mountain Series appeared in the Arizona mountains alongside other evidence pointing to the presence of immigrants from the north, including a D-shaped kiva and perforated plates. The series, as it was first conceived, included five types: Maverick Mountain Black-on-red, Maverick Mountain Polychrome, Nantack Polychrome, Prieto Polychrome, and Tucson Polychrome.

Maverick Mountain Black-on-red and Maverick Mountain Polychrome are versions of Kiet Siel Black-on-red and Kiet Siel Polychrome, respectively, produced outside their areas of origin by immigrants from northern Arizona. The same relationship exists between the Maverick Mountain Series type, Nantack Polychrome, and Tusayan Polychrome and Kayenta Polychrome. Prieto Polychrome was an attempt by immigrant potters to make Machonpi Polychrome, a type native to the Hopi Mesas. Tucson Polychrome has traditionally been characterized as derivative of Kiet Siel Polychrome.

Despite the name and its history, this series is actually fairly widespread in central and southern Arizona. Types in the series appear at a large number of sites and in significant quantities in the San Pedro Valley, the Safford Basin and adjacent areas, the Tucson Basin, and the upper Aravaipa and Sulphur Springs valleys. Maverick Mountain Series pottery is also common in the Cliff Valley-Upper Gila region of New Mexico and occurs in the Globe Highlands, the Tonto Basin, the Phoenix Basin, and the boot-heel of New Mexico. Vessels of these types have also been recovered from Grasshopper, Kinishba, the El Paso area, and Casas Grandes.



Cliff Polychrome (Roosevelt Red Ware) bowl fragment recovered from the Adobe Hill site AZ BB:1:32 (ASM), in the Lower San Pedro River Valley. Photograph by Jack Ramsey.

Evidence from the Lower San Pedro River Valley

As a result of a recent petrographic project, sourcing data are now available for perforated plates, Maverick Mountain Series

pottery, and Roosevelt Red Ware recovered from the Lower San Pedro Valley. This work provides strong support for the inference that northern immigrants were responsible for the origin and the spread of Roosevelt Red Ware.

Between 1999 and 2001, 29 sites were subjected to test excavations. This work was designed to examine the relationship between northern immigrants – documented as a result of Amerind Foundation excavations at Reeve Ruin and the Davis Ranch site – and the Salado phenomenon. Based on patterns in settlement location, architecture, and ceramics, four archaeological districts have been defined.

The excavated ceramic assemblage is comprised of nearly 45,000 sherds. More than 2,000 of these were analyzed by petrologists Elizabeth Miksa, Sergio Castro-Reino, and Carlos Lavayén, who determined the minerals present in the temper of each specimen. Ceramic sourcing was made possible through the identification of 37 mineralogically distinct sands suitable for use as temper. In most cases, specimens were matched with one of 12 different sands located in the lower reach of the valley. Some specimens could not be matched



confidently with a single sand source and instead could have come from one of two or three somewhat similar sources.

By A.D. 750, the lower valley, especially the Aravaipa District, was densely occupied by groups participating in the Hohokam regional system, marked by their use of Hohokam-style houses, cremation of the dead, local production of Hohokam buff ware pottery and, eventually, the construction and use of ballcourts. In the early A.D. 1200s, a transition to residential compounds, like those in the Phoenix and Tonto basins, began. Platform mounds were built beginning in the late 1200s. Approximately coeval with the building of platform mounds, small enclaves of immigrants from northern Arizona were established within existing local communities in the San Manuel and Dudleyville districts and more sizeable and separate immigrant communities were founded in the Cascabel District. Soon afterward, local production of Roosevelt Red Ware began and these types eventually replaced the local, "Hohokam-related" decorated pottery tradition, San Carlos Red-on-brown.

During the mid 1300s, the majority of the San Manuel District was depopulated, with its former inhabitants coalescing in communities to the north and south, in the Aravaipa, Dudleyville and Cascabel districts. By the late 1300s, the Cascabel and San Manuel districts were vacant. The groups that continued to occupy the lower valley coalesced in the Aravaipa and Dudleyville districts to the north. The latest occupied precontact sites in the study area seem to have been occupied by the descendants of both local groups and immigrants who left the valley by A.D. 1450.

Maverick Mountain Series types are highly concentrated in the valley. More than eighty percent of the specimens recovered were found at sites in the two southern districts. Nearly 97 percent of the locally produced specimens were matched with sands found in the San Manuel or Cascabel districts. The balance was manufactured in the Dudleyville District.

The overwhelming majority (94 percent) of the perforated plates recovered from sites in the San Pedro Valley were found in the Cascabel District. More perforated plate specimens were matched with Cascabel District sands than any other group of sands and the second largest group of specimens was assigned to sand sources that straddle the boundary between the Cascabel and San Manuel districts.

Roosevelt Red Ware was found in all four districts but was concentrated in two areas in particular, the Cascabel and Dudleyville districts. These types account for nearly 20 per-

cent of the ceramics recovered from the Cascabel District and more than 20 percent of the pottery found in the Dudleyville District. As a proportion of the decorated pottery recovered, Roosevelt Red Ware accounts for more than 80 percent in the Cascabel District and more than 90 percent in the Dudleyville district. There is a strong temporal component to this pattern, in that many of the sites in the Dudleyville District were established and occupied later than most sites in the other districts.

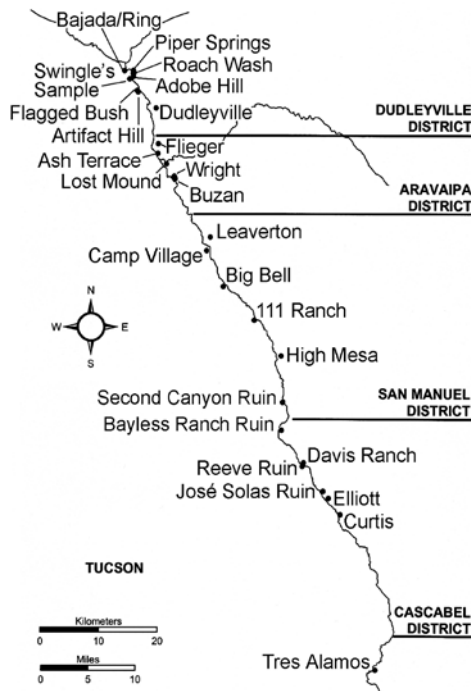
Although, on average, Roosevelt Red Ware accounts for more than two-thirds of the decorated ceramics in the Aravaipa District, where local groups remained dominant, only one percent of this material was produced there. Early in the sequence, the largest proportion of Roosevelt Red Ware found in the Aravaipa District was made in the San Manuel district, with the next largest amounts coming from either the San Manuel or Cascabel district and from the Cascabel district. Later, Roosevelt Red Ware entered from the Dudleyville District.

At Reeve Ruin and the Davis Ranch site, in the Cascabel District, Di Peso and Rex Gerald documented some of the most compelling evidence of ancient migration yet recovered in the southern Southwest. These sites exhibit pueblo-like roomblock architecture, the Kayenta entrybox complex, rectangular slab-lined hearths, mealing bins, Maverick Mountain Series pottery, and perforated plates – all markers of immigrants from northern Arizona. In addition, Reeve Ruin is constructed of stacked-stone masonry, and the Davis Ranch site exhibits a rectangular kiva like those found in the Kayenta region and villages on the Hopi Mesas. Many

of these same indicators of northern groups were encountered as a result of recent work at the nearby José Solas Ruin.

Each of these sites has yielded large quantities of perforated plates; hundreds were recovered from Reeve Ruin and the Davis Ranch site. Assuming that perforated plates are pottery-manufacturing tools, it is useful to consider their frequency at Reeve Ruin and the Davis Ranch site relative to the number of people who inhabited these sites. The estimated population of Reeve Ruin is 48 and 177 perforated plates were recovered by Di Peso. Thus, there were nearly four plates per person and it is unlikely that every person was a potter. It is estimated that 74 people inhabited the Davis Ranch site and 277 plates were recovered by Gerald, resulting in a very similar number of plates per person. The high numbers of plates per person at these sites

continued on page 10



Map of the Lower San Pedro River Valley showing excavated sites and district boundaries. Created by J. Brett Hill.



Kino Mission Tours

By James S. Griffith



Members of a Kino Mission Tour listening to a lecture outside the ruined mission at Cocospera.
Photograph by Jim Griffith

Since 1976, the Southwest Mission Research Center has sponsored several annual tours of Northern Sonora. The tours deal with the history and present-day life of several towns and villages where Father Eusebio Francisco Kino, S.J., established missions between 1687 and 1711. Here's what a typical tour looks like:

After a Thursday evening orientation meeting at a local motel, we leave Tucson Friday morning, cross the border, and transfer into our Mexican bus driven by our old friend Adán Morales. After dealing with tourist visas, we proceed to Ímuris, where we make a brief stop to buy quesadillas and green corn tamales and stretch our legs. Then it's eastward over the mountains to the lonely site of Nuestra Señora del Pilar y Santiago de Cocóspera, the one truly ruined and abandoned mission church on our itinerary. Here we learn about the church, stroll through the country cemetery, and have a picnic lunch. Then it's back over the mountains to the bustling agricultural city and pilgrimage destination of Magdalena. Here we'll encounter Father Kino's remains and visit the San Francisco Chapel, focal point of a huge regional folk-Catholic devotion and destination for the Pimería's biggest annual pilgrimage, held on October 4. After some shopping time on the Plaza Monumental, we visit the lovely village of Santa Ana Viejo, with its 19th-Century church, lovingly preserved and restored by the villagers themselves.

Then comes the long haul to Caborca, the Motel Del Camino, and the first of our two famous margarita parties.

Saturday is a busy day indeed. We head off east to the Altar Valley, with stops at three mission communities: Oquitoa, Átil, and Tubutama. Oquitoa's San Antonio mission sits on a hilltop above a beautiful village. It is filled with interesting colonial religious art and is surrounded by the village cemetery – itself a fascinating place. San Francisco de Átil boasts a very new church beside the ruins of the original structure, some nice art, and many stories. San Pedro y San Pablo de Tubutama is the most elaborate church we'll visit, and has its own art and stories. After a picnic lunch at the latter village, we retrace our steps to Pitiquito, where the church of San Diego with its fascinating early murals awaits us. Finally, we end up just before sunset at Nuestra Señora de la Purísima Concepción de Caborca, where the townspeople are working hard to uncover the hidden 19th-Century murals that once covered the interior. The scheduled day ends with another margarita party.

On Sunday we drive to a great petroglyph site, where we'll also take a short nature walk. Then to San Ignacio de Caborca, for some time in the lovely church and a final lunch – this time in the beautiful garden of the local sacristana. And then north for the border and Tucson.

And having presented that bare skeleton of facts



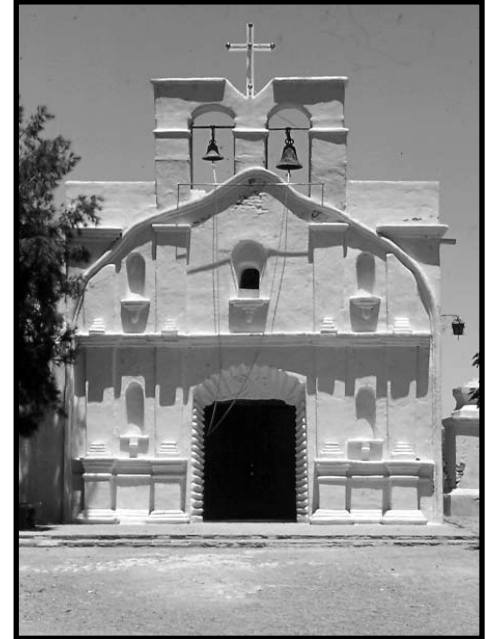
and destinations, I find that I've left out the really important parts of the Kino Tour experience. To be sure, we'll look at a lot of places where things happened, visit many churches with roots in the colonial history of the region, and see lots of lovely religious art. But we'll also sample regional foods, discuss current problems in the borderlands, and meet all sorts of people. And each tour is in its way unique, depending on who is leading it, what their interests are, and what opportunities open up as we move along.

In fact, we don't travel in an insulated world of tourism, but rather, close to the ground and the people of Sonora. This allows us to hear about fresh opportunities, and to take advantage of them as they arise. For instance, we have just included the Sunday visit to the petroglyph site. While the two suppers are "on your own," we often give guests an opportunity to visit one or more of Caborca's outstanding regional restaurants. When traveling as we do, you never know what's going to happen next. On one trip, for instance, we were traveling from a carne asada dinner in Caborca, and passed a three-piece band, carrying their instruments along the road. We stopped the bus, did some rapid negotiation, and continued the party back at the motel...complete with fine norteña music!

Our guides are not professional tour guides, but rather enthusiasts who know and love the region and wish to share it with others. Included in their number are historians, anthropologists, folklorists, archaeologists, architects, journalists and members of families with strong historical roots in

Sonora. There is no standard script: while each of us covers the same basic main stories, we each have our own specialties and interests. Along the way, we often meet with our Sonoran counterparts: historians, archaeologists, and others who are working to preserve their own churches and history. Little of this can be scheduled, but we leave plenty of room for it to happen!

The *visita* church
of San Antonio
de Oquitoa.
Photograph by
Jim Griffith



Although our staff is divided into "talkers" and "workers," that's a bit misleading. Many of the workers are just as knowledgeable as the talkers, and roles are liable to switch back and forth at a moment's notice. Let's just say that all the folks on the bus are there either because they paid to go on a tour or because they are crazy in love with the region and can't stay away from it.

At the Thursday evening orientation program, each guest is given a copy of our book *The Pimeria Alta: Missions and More*, written especially for the Kino Tours and edited by the late Jim Officer, Mardith Schuetz-Miller, and Bunny Fontana. And there's a traveling bookstore from which guests may purchase various books by members of our Kino Tour staff.

Our guests are also a pretty exciting bunch – we've had architects, historians, astronomers, naturalists and others join us...each of whom has been persuaded to share some of his or her specialized knowledge. We've had members of old Sonoran families looking for relatives. So a lively spirit of intellectual interchange colors the entire tour. But if all this sounds too cerebral and serious, don't forget those margarita parties.

The next Kino Mission Tour is from March 31-April 2, 2006, and there will be two tours in the Fall. For more information, visit our website at www.smrc-missiontours.com. For booking information, call Julieta Portillo at 520-628-1269.



Mural of Our
Lady of the
Apocalypse
inside
the church of
San Diego del
Pitiquito.
Photograph by
Jim Griffith



From the Executive Director:

I had heard talk about the Southwestern Mission Research Center (SMRC) tours described in this issue's article by Jim Griffith ever since I moved to Tucson in 1980. In October 1997, my wife and I went on one of the SMRC tours, and it was one of the best history tours we have ever taken!

Old Pueblo Archaeology Center is very grateful for the support of organizations like the SMRC who provide us with gifts that we can use in our efforts to raise funds for our own education programs for children and adults. The SMRC, a nonprofit organization incorporated in 1965, has donated places on its famous Sonoran Missions tours to other worthy nonprofit organizations – including the Arizona Archaeological and Historical Society (since 1993) and Old Pueblo Archaeology Center (since 2001) – for use in our fundraising activities.

The purpose of the SMRC is to promote, foster, coordinate and develop programs and activities pertaining to mission and other Colonial period history of the American Southwest and northern Mexico. SMRC's main contact with the public is through its quarterly newsletter, *The Revista*, which reaches about 700 members.

Other than membership dues, the three-day mission tours are SMRC's only source of income, which is used in a variety of ways. From January 1992 through December 2005 SMRC has spent its revenues on preservation (\$13,196 including international work on Cocospera and San Ignacio missions, stabilization and preservation of a Garces banner, and a grant to Tumacacori National Monument); research and documentation (\$27,333 including research, project analysis, and report on the Tucson Presidio artifacts, research for publication of *Saints of San Xavier* (1994-1995), and a grant for photography to Edward McCain for the *San Xavier* book); the Arizona State Museum (\$19,797 to support the Office of Ethnohistorical Research, formerly known as the Documentary Relations of the Southwest division); publication assistance (\$85,031 including grants to numerous authors, assistance with a book on Peres de Ribas, support of a couple of publication funds, and for exhibit publications). During this period, publication of the SMRC quarterly newsletter has cost them \$134,063.

I urge everyone who is interested not only in Spanish missions but in the more general Spanish Colonial period history of the Southwest to become members and donors of the Southwestern Mission Research Center, as its newsletter alone is a wealth of information about Spanish Colonial history. For more information contact the SMRC Secretary, Nick Bleser, at nick@azpob.com or 520-398-2266.

Allen Dart, RPA

Dear Darla...

These cone-shaped shell artifacts were found during the recent excavation of a Classic period (ca. A.D. 1100 – 1450) Hohokam village site. They make a delicate, clinking sound when tumbled together - are they instruments of some sort?



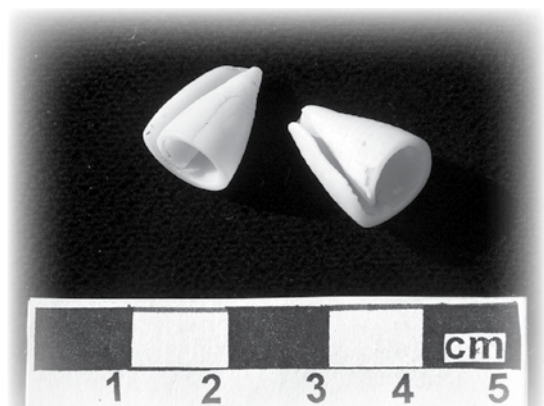
Making Music in Marana

Ah yes, dear M³, these are fine examples of shell tinklers! Tinklers are often cone- or bell-shaped objects attached to garments worn during events such as ceremonies, rituals, and dances. As the wearer moves, the tinklers produce a rhythmic noise often meant to imitate natural sounds like rain or wind. Tinklers are included in dances in many parts of the world and are made from materials such as bone, metal, horn, and shell. Tin and brass cone-shaped tinklers turn up at historical sites all across the United States. In Yaqui communities in Mexico and Arizona, dancers still wear tinklers and rattles made of deer hooves on belts and moth-cocoon rattles about the legs and ankles during their traditional deer dance. The sounds created during the dance represent the movement of wind and leaves.

The tinklers shown were made from *Conus* shells – marine shells commonly used by the Hohokam in craft-making and often associated with Classic period sites, especially those large sites interpreted as ritual centers, such as the Marana Mound site. At Marana Mound, broken bits of tinklers found in plazas in the vicinity of the platform mound may be remnants of community activities such as dances performed in the plazas. The Hohokam traded for or collected *Conus* shells from the Gulf of California or the California coast and probably manufactured most of their shell products locally.

To make the tinklers shown above, the top of each shell was removed and the cut surface ground smooth. Although they could be strung through the hole in the top, tinklers such as these were often drilled through the sides so they could be strung side-by-side.

Tinkles,
Darla



Photograph and article by Jennifer DeJongh



Volunteer Spotlight: Sherry Paris



After 18 years, Sherry Paris and her husband came back to Tucson to settle down. Sherry is rediscovering Tucson and its rich cultural heritage while enjoying every minute of her retirement. She first heard about Old Pueblo's volunteer opportunities when her son and daughter-in-law presented her with a gift membership to Old Pueblo. As an Old Pueblo member, she discovered that she would be able to participate in a real archaeological project. Learning that she could be so involved in archaeology, Sherry started to volunteer for Old Pueblo's Yuma Wash excavation and research program in October 2005.

Sherry is close with her family and relates her experiences in archaeology with her husband and two children—a daughter who lives in Iowa and a son who lives in Tucson. Her son, Mark Paris, also loves archaeology and has volunteered with his mother at Old Pueblo. She is a very knowledgeable lady with many different interests. Over the years, she has owned three antique shops and some of her pasttimes have been collecting English china, violins, and folk art.

Archaeology is a subject that has interested her all her life, but before learning about Old Pueblo she never imagined she would be able to participate in an actual excavation. She was surprised by how much archaeologists can determine from pieces of chipped stone artifacts and pottery sherds. As she carefully peels back a thin layer of cultural fill revealing pottery and shell in a Hohokam pithouse at the Yuma Wash site, it is obvious that Sherry loves to excavate. She finds that the most interesting aspect of the Hohokam Indians are their pithouse dwellings and how they were constructed.

Prior to volunteering with Old Pueblo she had thought that archaeologists were only interested in whole arrowheads or complete vessels. She is continually amazed at the difference between sensationalized archaeology that is often portrayed in the media and the reality of archaeological research. But rather than being disillusioned by true archaeology, she has become more fascinated and wants to continue to learn through hands-on experiences at Old Pueblo. She is finding that washing artifacts in the lab is her favorite volunteer activity. She does not find the work tedious, but rather exciting, since she gets to see some of the artifacts up close and clean that had been discovered by her and her companions while they were excavating at the Yuma Wash site.

With so much interest in archaeology, we hope that Sherry will continue to volunteer for Old Pueblo for a long time!

By Courtney Rose

And by the way, congratulations to...

Old Pueblo Lead Instructor Christine Jerla and her husband Sebastian Chamorro on the birth of their son Luciano Sebastian Chamorro, on October 12, 2005

Old Pueblo Education Director Courtney Rose and her husband Carlos (Chaly) Lavayén on the birth of their daughter Camila Belén Lavayén, on February 11, 2006



(Perforated Plates, *continued from page 5*)

supports the model, advanced by Crown, that the origin of Roosevelt Red Ware can be traced to northern immigrants who became part-time specialist pottery producers.

Conclusion

The same sands, located in the Casabel and San Manuel districts, were used to temper nearly all of the perforated plates and Maverick Mountain Series pottery in the sample. These same sands are dominant among the Roosevelt Red Ware specimens subjected to analysis. The remainder of the Roosevelt Red Ware in the valley was produced almost entirely at sites built late in the sequence and likely occupied by the descendants of both local groups and immigrants. Preliminary results of more recent petrographic work strongly suggests local production of perforated plates, Maverick Mountain Series pottery, and Roosevelt Red Ware in the Tonto Basin, the Globe Highlands, and the Lower Salt River Valley. The fact that the pattern seen in the San Pedro Valley holds in many different areas is consistent with the idea that northern immigrants were largely responsible for not only the origin, but also the spread of Roosevelt Red Ware.

Old Pueblo's Calendar

Ancient Discovery Tours

Traditional and Modern

Hopi Culture

Join distinguished scholar, teacher, and Hopi tribe member, Emory Sekaquaptewa, on an exclusive guided tour of the Hopi villages on the First, Second, and Third Mesas. The tour usually offers one traditional Hopi dinner at a private home, a viewing of traditional community dances (depending on tour date), and visits to a petroglyph site and the villages of Walpi, Hano, Sichomovi, Sipaulovi, Oraibi, and Hotavilla as well as to modern Hopi establishments.

Tour dates: May 17-21, 2006. Advance registrations required: 520-798-1201.

Chaco Canyon, Pueblo Pintado, Aztec & Salmon Ruins

Join Old Pueblo board member and former Chaco excavation participant Jim Trimbell on this exciting tour to visit the A.D. 850-1250 archaeological ruins of Pueblo Bonito, Chetro Kettle, the Casa Rinconada Great Kiva, Pueblo del Arroyo, Kin Kletso, the mesa-top Pueblo Alto, and ancient Puebloan stairways carved out of bedrock in Chaco Culture National Historic Park.

Tour dates: April 27-May 1, 2006. Fee: \$695 for nonmembers or \$670 for members. (Fee includes transportation, lodging, and entry fees).

Traditional Technology Workshops

Traditional Pottery Making (Level 1)

Experienced Southwestern potter and artisan John Guerin teaches Old Pueblo's pottery workshops. Learn how to make traditional Indian pottery the way it has been made in the Southwest for over two thousand years. Dig your own clay, then hand-make your own pots and other wares. All equipment is provided. Dates & Time: Sundays, September 17-October 29, 2006 (2-5 p.m.).

Old Pueblo Archaeology Center, 5100 W. Ina Rd., Bldg. 8, Tucson. These multisession workshops cost only \$69 (\$55.20 for members).

Traditional Pottery Making (Level 2)

The Level 2 workshop builds on Level 1 techniques. In this workshop, instruction focuses on larger pots, applique, carving, sgraffito, Pueblo-type storytellers, Zuni-type owls, and micaceous slips. Dates & Times: Sundays, March 19 - April 30, 2006 (2-5 p.m.).

Call Old Pueblo at 520-798-1201 for more details and registration.

Arrowhead Making & Flintknapping

In this workshop flintknapper Sam Greenleaf teaches how to make arrowheads and spear points out of obsidian and other stones to provide a hands-on experience and to learn how prehistoric people made and used stone artifacts. All necessary equipment is provided. Date: Sunday, March 26, 2006 (9 a.m.-12 p.m.) Fee: \$25 or \$20 for members.

The Old Pueblo Archaeology Center Membership Program

Archaeology Opportunities

Annual Membership & Subscription Rates

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| <input type="checkbox"/> | Contributing | \$200 |
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| <input type="checkbox"/> | Friend \$25: receives <i>Old Pueblo Archaeology</i> and discounts on publications and classes but not free participation in excavation opportunities. |
| <input type="checkbox"/> | Subscriber \$10: receives one year (4 issues) of <i>Old Pueblo Archaeology</i> but no other discounts or excavation opportunities. |

Membership categories above provide annual subscription to *Old Pueblo Archaeology* and opportunities to excavate in Old Pueblo's public research programs at no additional cost plus 20% discount on publications and classes.

More importantly, your membership fees support Old Pueblo Archaeology Center's educational programs.



Arizona Humanities Council Presentations

Ancient Native American Potters of Southern Arizona

Archaeologist Allen Dart presents Native American styles that were in vogue during specific periods of Arizona's prehistory and history and discusses the usefulness of pottery for dating archaeological sites and interpreting ancient lifeways.

Date: Thur., April 27, 2006 from 6:00-7:30 p.m. Place: Maricopa County Southeast Regional Library, 775 N. Greenfield Rd., Gilbert, Arizona. No reservations needed.

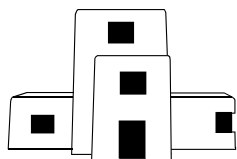
Arts and Culture of the Ancient Hohokam Indians

Archaeologist Allen Dart illustrates artifacts, architecture, and other material culture of the ancient Hohokam Indians, and discusses archaeological interpretations of how these people tamed the Sonoran Desert for centuries before their culture mysteriously disappeared.

Presented for the Arizona Archaeological Society-Agua Fria Chapter monthly meeting at Glendale Public Library, 5959 W. Brown St., Glendale, Arizona. No reservations needed. For meeting details contact Paulette Gehlker at 602-332-4890 or pgehlker@fastq.com. For information on the presentation subject matter contact Allen Dart at 520-798-1201 or adart@oldpueblo.org.

Old Pueblo's "Traditional Pottery Making" and "Arrowhead Making & Flintknapping" workshops are designed to help modern people understand how prehistoric people may have made artifacts. They are not intended to train students how to make artwork for sale.

Join Sam Greenleaf at the Yuma Wash site on March 19, 2006 for a free flintknapping demonstration from 12:00-1:00 p.m.



Old Pueblo's Calendar

Hands Across the Ages

Fundraiser for Old Pueblo Archaeology Center at the Radisson Suites Tucson, 6555 E. Speedway Blvd. on April 8, 2006, from 5-11 p.m. \$50 per person. Celebrate Old Pueblo's 12th anniversary with a dinner and a silent auction to benefit Old Pueblo's Children's Archaeology Education Programs. Advance reservations required: 520-798-1201.

Old Pueblo Archaeology Center's "Third Thursdays"

Each Third Thursday Program will be from 7:30 to 9:00 p.m. in the Old Pueblo auditorium, 5100 W. Ina Road, Building 8, in the Marana Town Limits, Arizona. Each program is free, with no advance reservations required. Contact Old Pueblo at 520-798-1201 or info@oldpueblo.org for more information. Check out the following scheduled presentations.

Thursday, March 16, 2006

Dr. Paul Fish and Dr. Suzanne Fish, Arizona State Museum, University of Arizona archaeologists, will present "The Arizona State Museum's Excavations at the Marana Mound Hohokam Site." Drs. Paul and Suzanne Fish will discuss the most recent excavations in the Lower Santa Cruz Valley at a major Hohokam center that focused on a platform mound public building surrounded by a community of smaller settlements occupied from A.D. 1200-1300. These recent studies have led to new interpretations of Hohokam settlement, population density, social complexity, and centralization of power.

Old Pueblo Archaeology is the quarterly bulletin of Old Pueblo Archaeology Center, a 501(c)(3) nonprofit corporation. Questions, comments, and news items can be addressed to editor Dr. Courtney Rose by calling 520-798-1201 or by email (crose@oldpueblo.org).

Pueblo Grande Museum and Archaeological Park

The following events are sponsored by Pueblo Grande Museum and Archaeological Park, 4619 E. Washington St., Phoenix (SE corner of 44th St. and Washington). Call 602-495-0901 or visit Pueblo Grande's website at www.pueblogrande.com for more details on these and other events.

Cooking With Native Foods Workshop

Join Pueblo Grande Museum and Ms. JoAnna Hernandez as she demonstrates cooking with native foods. In this workshop you will learn how to make nopalitos, amaranth bars, and prickly pear punch (and sample them too). Preregistration required. Date: Saturday, March 25 from 9 am to 12 p.m. at Pueblo Grande Museum. Fee: \$25 for nonmembers and \$20 for members. Call Pueblo Grande Museum for more details.

Lecture: Geronimo's Surrender

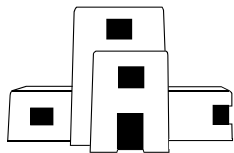
Join the Pueblo Grande Museum Auxiliary and Jay Van Orden as he presents his lecture, "Geronimo's Surrender: The 1886 C.S. Fly Photographs". This slide-lecture combines rare photographic images and researched eyewitness accounts to add new historical depth to stories of the surrender negotiations between Geronimo and General Crook in 1896. Wednesday, May 3, 2006, from 7:30 to 9:00 p.m. at Pueblo Grande Museum. Free to the public.

Pueblo Grandemembersalsoreceive Old Pueblo member discounts

**Call Old Pueblo at
520-798-1201 for details.**

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