

Old Pueblo Archaeology

An Archaeological Perspective on the Hohokam-Pima Continuum

By Deni J. Seymour



Paired structures of O'odham household grouping showing elongated dome shape and mode of construction using branches. Many times such houses were covered with mud, mud-covered mats, or simply with brush, depending upon the season of use and the degree of sedentism of the particular group. Archaeological evidence of adobe in the house fills indicates that adobe was commonly used by the riverine Sobaipuri. Drawing by Deni J. Seymour.

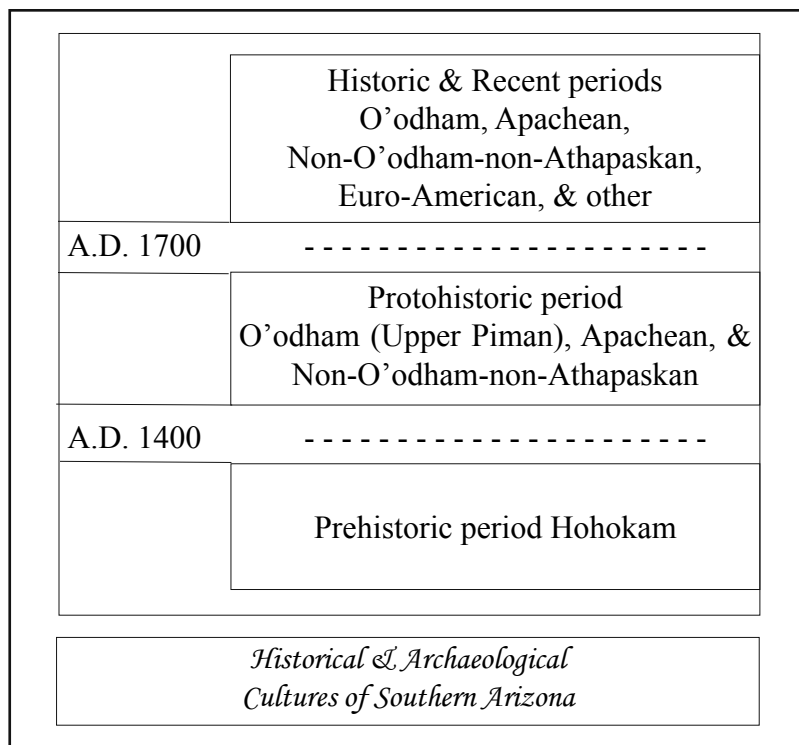
Were the prehistoric Hohokam Indians direct ancestors of the Upper Piman peoples who were encountered by the first European visitors to southern Arizona and northern Sonora? The historical Tohono O'odham (Papago), Akimel O'odham (Pima), Sobaipuri, and other O'odham who together are identified by anthropologists as the Upper Pima, were the peoples first encountered by Spanish missionaries and explorers, and their descendants now occupy the Tohono O'odham, Gila River Indian Community, and other Indian reservations that are relatively small compared to the "Papagería" – the traditional O'odham homeland.

In this article I discuss what kinds of evidence have been relied on previously to assess whether the prehistoric Hohokam were direct ancestors of the Upper Piman groups who occupied the former Hohokam homeland historically, that is, whether there was a "Hohokam-Pima continuum" (a phrase

in which "Pima" refers specifically to the Upper Pima). Instead of relying on the previously applied methods for answering the question, however, I provide information about some recent archaeological findings and interpretations relevant to the topic, and suggest what other kinds of information we need to consider in determining whether this supposed cultural continuum really existed.

The lines of evidence used previously to decide whether there is a direct link between the ancient and historical groups are not clear-cut and have been interpreted differently by several of the Southwest's authoritative scholars who have considered the question. Currently, the issue is considered either already largely settled or completely unsettled. The majority of the topic's scholars believe there is a connection between prehistoric Hohokam and the historical Upper Piman groups, but evidence to the contrary is compelling.

Continued on Page 2...



The question of whether there is a Hohokam-Pima continuum is intriguing because there were substantial material-culture and social-organization differences between the Hohokam and the several O'odham groups that together are referred to as Upper Pima. Several fundamental assumptions have influenced historical and current understanding about the possible Hohokam-Pima continuum, but these assumptions are now being challenged with new archaeological data. Consequently, as the assumptions are modified questions can be asked in new ways and different corridors of investigation can be used to access answers. To provide a framework for seeking and applying new information to the question, I present seven basic assumptions that have direct relevance to the issue. By addressing and evaluating these assumptions it becomes possible to suggest new avenues for research that may get to the crux of the matter.

1. *The Occupational Gap*

A fundamental issue relevant to whether there was a continuum is whether southern Arizona was abandoned after the collapse of Hohokam culture in the late prehistoric period, or whether the region continued to be occupied. Some have argued that southern Arizona was an empty area after the collapse of the Hohokam and Salado cultures around 1450, creating a cultural gap or occupational hiatus. In this scenario the O'odham did not arrive in southern Arizona until around 1680 or later. Others who note the discontinuity between the Hohokam late Classic period (the last Hohokam occupation period) and the early O'odham (including the Sobaipuri, an Upper Piman group that occupied much of the upper San Pedro and Santa Cruz valleys in early historical times)

suggest there was significant social reorganization and diaspora (dispersal), or that early Upper Piman culture was a watered-down version of the Hohokam social system.

To determine whether there was an occupational gap it would make sense to utilize a hierarchical key to track various considered possibilities that can then be eliminated to come to a conclusion, much like the kind of key a botanist uses to identify plant species. With this method, if one answers yes to a question about a specific attribute of an item being studied, the key takes one to a next level in the same line of inquiry; but if one answers no, the key diverts the inquirer in another direction.

If there is an occupation gap after A.D. 1450 (a date most scholars agree represents the end of the Hohokam culture sequence) it is easy to visualize that the prehistoric system declined and there was a Hohokam diaspora to other regions, with later groups, including the Upper Pima, moving into a relatively empty niche of southern Arizona. Hohokam

descendants who survived the decline (which traditional legends indicate was violent) could have also re-entered the area at this later time.

Were the answer easy this question would have been addressed decades ago. But dated Sobaipuri sites along both the San Pedro and Santa Cruz rivers indicate there was a widespread occupation in those valleys in the 1400s and 1500s. From this we can infer that the Sobaipuri were already present in southern Arizona at the end of Hohokam times and that the Sobaipuri either replaced the Hohokam, absorbed them, or represent a modified form of them. Fifteenth and sixteenth century dates that have been obtained on several Sobaipuri archaeological sites indicate that there was not a hiatus, but an overlap in cultural occupations – however short the time between the two might have been. Presumably an immediate in-filling after the Hohokam collapse is possible as well, as might be expected in lush river valleys. To assess which scenario is correct there is a pressing need for reliable narrow-interval dates for the last of the recognizable Hohokam archaeological sites and those of the earliest Sobaipuri.

2. *First European Contact and the Kino-Period Documentary Record*

When did history begin in southern Arizona? There are two basic camps of opinion on this point, with some saying that O'odham documentary history began in the mid-sixteenth century with the arrival of the Spanish explorer Coronado whereas others believe that Upper Piman history begins with the chronicles of the Jesuit Father Kino, who began missionizing in northern Sonora and southern Arizona in the late seventeenth century.



It is common practice in studies of southern Arizona's terminal prehistoric and early historic periods to ignore the even earlier passage of Fray Marcos de Niza, skipping to Coronado or (as occurs more often) jumping farther forward to Kino's times. The archaeological record suggests that ignoring Niza's chronicles is detrimental to our understanding.

A formidable conceptual hurdle facing Sobaipuri-O'odham scholars attempting to understand the past is the fact that while the Kino-period documentary record begins so late in this region, archaeological evidence and Niza's accounts of his encounters suggest the Sobaipuri interacted with Europeans long before Kino explored and settled the region. It is true that sustained European contact with the Sobaipuri began in Arizona in the 1690s, but earlier mention of occupation on the upper San Pedro occurred in the mid-1680s. At this time a settlement called Quiburi was occupied by both Upper Pimas and a group referred to as Jocomes – an alliance that was reportedly severed by Captain Pacheco Zevallos. Prior to the 1680 Pueblo Revolt in New Mexico, there was contact between the New Mexico colonists and the Sobaipuri in southern Arizona. Though reported as mere rumor, or referred to by Kino as "certain reports," the archaeological record seems to bear out this contact. Not only were Sobaipuri present much earlier than 1680 on both the San Pedro and Santa Cruz rivers, but some of the pre-Kino Sobaipuri archaeological sites have produced European artifacts and features that may show this influence.

3. *Coronado's Encounter*

Those practitioners who acknowledge pre-Kino exploratory contact with natives in southern Arizona usually point to the Coronado expedition, which is thought by most scholars to have followed the San Pedro River north across the modern international boundary (see *Old Pueblo Archaeology* no. 47, December 2006). A San Pedro Valley route makes sense with respect to the distribution of native groups in the area. In fact, recently acquired knowledge about the chronology and geographic distribution of these groups suggests that Coronado intentionally avoided meeting them, instead turning northeast at Lewis Springs, heading up Government Draw (just south of Tombstone), and continuing on through the Sulphur Springs Valley to his ultimate destination of Cibola.

The Coronado expedition's chronicler, Jaramillo, spoke of "poor natives" encountered during that expedition. Some historians take this as evidence that the Sobaipuri were the poor natives, that they were impoverished hunter-gatherers because at this time the southeastern Arizona river valleys are known to have been Sobaipuri territory. Thanks to a mid-twentieth-century historian whose interpretation has since been discredited, many scholars reading the Jaramillo chronicle consider the area's resident mobile groups to be related to the ancestral Apache, and most of these scholars believe the Apache entered the Southwest in the 1600s.

Archaeologists, on the other hand, have noted that irrigation canals were mentioned along the southeastern Arizona rivers in Kino-period documents, suggesting that the Upper Pima were not that mobile and therefore it was some other group or groups that Jaramillo described as poor natives. Among those who believe in a Hohokam-Pima continuum, irrigation is one of the traits that links the Hohokam and the Upper Pima. Others believe that the Upper Pima were not present until the 1680s, and that the "poor natives" were Apaches. The discrepancy between this line of thinking and Coronado's encounter is usually left unresolved simply by ignoring it and suggesting that there were only small insignificant populations of unspecified origin present. This practice is made easy because archaeologists have had difficulty recognizing evidence of mobile group occupation during this intervening period, and few dates have been obtained on archaeological sites that would fill in the 1450-1690 interval. Newly obtained archaeological data indicate that not only was there no occupational gap, but that by the time of Coronado's entrance at least three distinct cultural groups were present and interacting in a relatively crowded social landscape. Dates obtained from numerous sites using two different techniques (radiocarbon and optically stimulated luminescence) indicate that the Sobaipuri and at least two other archaeologically visible but less obtrusive groups – Apaches (speakers of the Athapaskan language, as were Navajos) and some non-Athapaskan groups – were present at the end of prehistory in the 1400s; and that these three groups witnessed, experienced, or participated in the decline of the prehistoric Hohokam and observed or greeted the European explorers.

In 1539 Marcos de Niza probably encounters and conflicts with the Sobaipuri on the San Pedro, and after hearing of Niza's encounters Francisco Vázquez de Coronado likely assiduously avoided the Sobaipuri in 1540. It seems that Coronado turned to the northeast above (south of) the first Sobaipuri settlements. I have come to this conclusion by reconstructing the number of days traveled in relation to geographic features as Coronado descended the San Pedro, and by considering the documented Sobaipuri site distributions that I have recorded during archaeological surveys. His detour may have been an effort to avoid confrontation after the difficulties caused by Marcos de Niza close to a year earlier at Cibola, during which the Sobaipuri who accompanied him had vouched for the Europeans.

As one proceeds north down the San Pedro Valley today, Sobaipuri archaeological sites are first encountered near Fairbank. Their presence here is probably why Coronado's expedition did not actually encounter Sobaipuri settlements – he turned away from the river further south. Instead, the expedition members were visited by mobile groups on the far upper (southern) reaches of the San Pedro. I have argued that these "poor natives" mentioned by Jaramillo as Indians



with gifts of little value are often mistaken for the Sobaípuri. I believe instead that they were non-Athapaskan mobile groups associated with the archaeological Canutillo complex, which extends all the way into west Texas. Whoever they were, Coronado saw fit to distinguish these poor natives from the more barbarous ones he encountered at Chichilticale, which were likely ancestral Apaches.

4. Marcos de Niza's View

Fray Marcos de Niza's expedition to the Zuni area of New Mexico is often dismissed as having no relevance to the early O'odham in the Pimería Alta, for a number of reasons.

The primary one is that the native settlements and lifeways Niza described do not conform to the known and interpreted archaeological record in southern Arizona, and are at odds with the later Kino record that indicates population densities were much lower. For this reason many have argued that Marcos de Niza was referring to populations south of the international boundary when he described densely populated and closely spaced riverside settlements amidst rich and productive irrigated fields in an evergreen garden brimming with abundance liberally bestowed on the Europeans by generous natives.

Yet, if one takes an archaeological perspective in the context of geographic data provided in the Niza document, there is only one possibility for Marcos de Niza's route. Given the number of days traveled, his description almost certainly applies to the upper San Pedro. Reconstructions of the nature of people encountered and the density of their settlement pattern

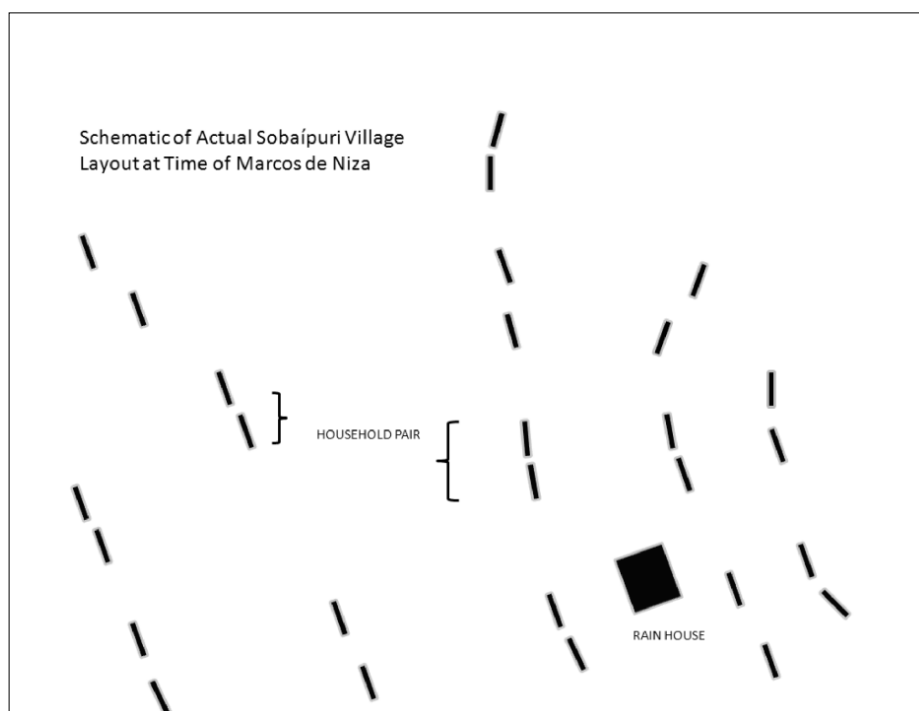
is consistent with archaeological site distributions on the upper San Pedro. The only place during this period, on this portion of their journey, where site density is high enough to match the descriptions of a "half league and a quarter league apart" is along the upper San Pedro near Fairbank, where 24 Sobaípuri sites have been recorded and many date to this period. And site density is sufficiently high here to match Niza's historic description.

I believe that the position that very few people were living in the San Pedro Valley until the apparent late arrival of the Sobaípuri (who inhabited the region when the Spaniards first settled southern Arizona in the late 1600s) is no longer sustainable, and it has not been so since I published these early dates and described the archaeological evidence of these other culture groups beginning in 2002. Yet, the perception continues to persist among archaeologists that by 1450 the entire region was devoid of archaeologically visible settlement and that it remained so for nearly 200 years until the arrival of the Sobaípuri.

Other archaeologists are increasingly aware of the nature of these other culture groups, applying modern state-of-the-art chronometric techniques and fine-tuned material culture studies to parse the occupations. Now various sorts of evidence point to people being present in southern Arizona from 1400 forward. This new evidence indicates the cosmopolitan nature of the fifteenth century social landscape, making it untenable to suggest that no one was here (although it is

5. A Meager Record of a Rich Past

One reason some archaeologists find it difficult to accept the image of abundance conveyed by Marcos de Niza with regard to the Sobaípuri is because of another misconception. Under the existing scenario, Sobaípuri archaeological sites are represented by thin shallow cultural deposits and seemingly flimsy surface architecture. Unlike the earlier Hohokam sites, Sobaípuri sites generally have no trash mounds or even trash concentrations, indicating that discarded items accumulated very slowly. Few artifacts of shell are present, and those that do occur represent fewer mollusk species than the shell items found at Hohokam sites. Decorated pottery is apparently lacking at Sobaípuri sites and there is little evidence of storage, much less evidence of surplus. The low frequencies of ground stone artifacts and the general lack of archaeologi-



Household Pairing and Planned and Organized Settlements. Schematic of actual village layout at the time of Marcos de Niza. Figure courtesy of Deni J. Seymour.



agriculture was not very important to the Sobaípurí. If one trusts the Kino-period documentary literature there were few settlements and relatively low populations, and the people lived in rancherías (spread-out settlements) that lacked any formal site structure. This description presents a picture that is very different from the preceding Hohokam Classic period, and seriously at odds with Marcos de Niza's account.

Yet it is in the context of pairing recently obtained archaeological data with Marcos de Niza's account that a new image emerges (see map of house pairings and alignments on Page 4). It allows us to see that the Sobaípurí were largely sedentary, used adobe on their structures, had abundant surplus (which they generously distributed to travelers), used extensive irrigation systems, maintained high population levels, exhibited a dense settlement pattern, and occupied respectable settlements. The Niza eyewitness observations are consistent with the newly obtained archaeological data that show many closely spaced sites with formalized layouts of adobe-and-mat-covered houses (see house drawing on cover) situated along the river adjacent to extensive irrigation systems, with relatively abundant ground stone and possibly even some decorated pottery. The greater temporal depth and higher population density account for the 24 Sobaípurí sites now known along the upper San Pedro (see map on Page 6) where Kino recorded four (or six if the varying locations of some sites are considered). These exceedingly high archaeological site densities are consistent with rancherías or barrios located "a half league and a quarter league apart" as reported by Marcos de Niza, and chronometric dates place many of these sites in the terminal prehistoric period.

6. *Pre-Sobaípurí Population Collapse*

By ignoring Marcos de Niza's initial 1539 encounter, I think a misconception has arisen that the entire southern Southwest experienced a severe reduction in population prior to the arrival of Coronado in the Southwest in 1540. The high population densities for the Sobaípurí noted by Niza in the preceding year demonstrate either that demographic collapse had not yet occurred, or that if the Hohokam population had collapsed it was quickly replaced by members of three other groups: Sobaípurí, Apaches, and non-Athapaskan (Canutillo complex) mobile groups. This means that southern Arizona boasted a teeming social landscape at the time of European contact, a view that is supported by a variety of archaeological data. Yet, by the time Father Kino first visited the Sobaípurí their populations had been greatly diminished, suggesting that epidemics – wandering European illnesses, had taken their toll in this intervening period.

Descriptions of the 1690s and later are not likely representative of the pre-Kino Sobaípurí because by the 1690s changes had already occurred on a scale that is generally unimagined.

The pre-Contact period Sobaípurí were not poor

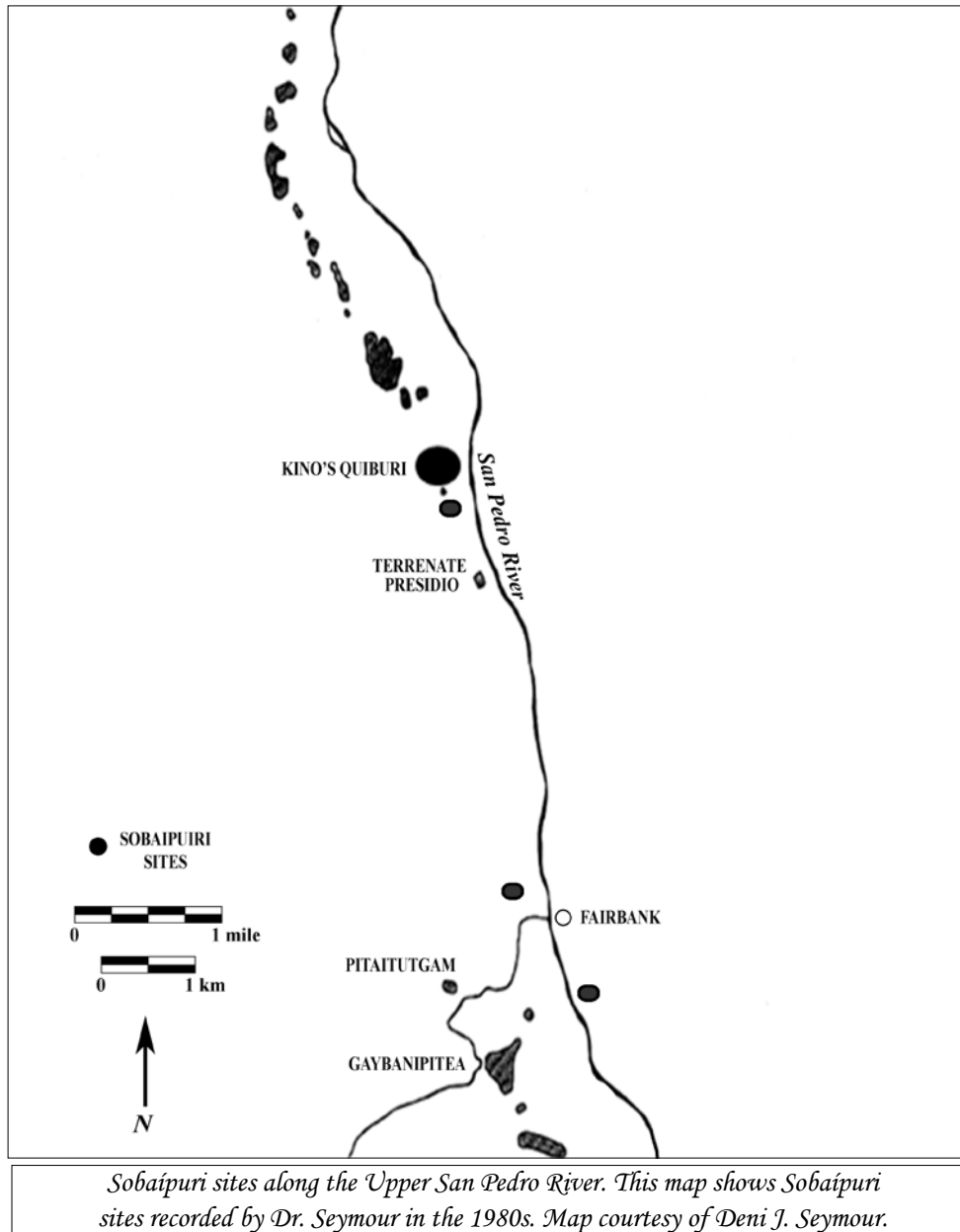
Indians who subsisted on wild cactuses; instead they practiced an adaptation that has been described by some as a continuation of or at least very similar to the prehistoric way of life. This position is at odds with some who believe that Sobaípurí sites and artifacts are dramatically different from those of Hohokam inhabitants, and that it is difficult to infer that the two populations are related. It is true, however, that the Sobaípurí and other Upper Piman groups sometimes roamed with the mobile raiders, and were probably coresidential and intermarried with them. Clearly, not all Upper Piman groups were so sedentary as is discussed in my recent *New Mexico Historical Review* article (Fall 2007).

It is my interpretation that European contact with the Sobaípurí precedes by 150 years what is generally thought of as the beginning of history in southern Arizona. The archaeological record is consistent with this earliest account, whereas serious lapses occur when attempting to reconcile the archaeological record with only this late (post-1690) history. This has not been raised as an issue before because overall so little work has been conducted on the Sobaípurí. Marcos de Niza's account on the Sobaípurí may be one of the most important documentary sources available, providing linking observations and explanations that allow a substantial portion of the disjointed puzzle pieces to be placed into logical and meaningful positions.

7. *Were the Hohokam Homogenous?*

This leaves us with the notion that many people were present in southern Arizona during the terminal prehistoric period, so the question remains as to whether the historical Upper Pima are related to the prehistoric Hohokam. Among the historically resident populations, the Upper Pima certainly are the most viable candidates for being Hohokam descendants, but just because the Upper Pima were present historically does not mean they are descendant. It could instead be reasonably inferred that the Upper Pima were somehow involved in the Hohokam collapse, just as any of the other groups might have been. This issue brings us to the final assumption to be addressed here. Stated as a question it is reasonable to ask: Were both the Preclassic and Classic period Hohokam a homogenous population, genetically undifferentiated?

One of the most compelling arguments against a Hohokam-Pima continuum comes from studies of Hohokam teeth by Arizona researchers Christy Turner and Joel Irish. Their tooth-morphology study suggests that Hohokam teeth of the Classic period have closer genetic affinity to populations from Coahuila, Mexico, than to the modern Pima. The Pima, on the other hand, have closer affinities to other prehistoric Southwestern groups, especially the Mogollon, suggesting a local origin for the Pima. Because of this Turner and Irish conclude there is no connection between the Pima and the Hohokam, and that there



was a southern origin for the Classic period Hohokam. This idea was also put forth in a late 1950s comparative study of pottery designs and more recently by some linguistic studies.

If one is to infer any historical accuracy from the few recorded O'odham oral traditions, a group came in from elsewhere and attacked the extant Hohokam organizational structure, causing Hohokam buildings to collapse before their magic. Given that three archaeologically recognizable groups are evident in the 1400s or before, one must ask which one or more of these groups is referenced in the O'odham stories.

If there is no biological connection between Preclassic Hohokam populations and the historical Upper Pima, then one might reasonably default to the perspective presented by Upper Piman oral tradition, which holds that Pimans arrived from the east and caused the downfall of the Classic period Hohokam. Alternatively, one of the other groups

oral traditions who exercised the "magic" that caused the toppling of the Classic period chiefs.

If Preclassic and historic Upper Piman populations prove to be similar, the questions remaining would be (1) Were the O'odham-Pima stationary with Classic period overseers who had moved in?; or (2) Did the O'odham leave and then return?

A viable alternative to all of this is that the Upper Pima arrived late, yet early enough to be present to observe or participate in the downfall of the Hohokam but to have no genetic connection to them other than perhaps incorporating fallen Hohokam into their ranks. At a minimum this melding of surviving Classic period Hohokam is suggested by traditional stories saying that those who did not resist were not killed.

Yet, this is not the end of the story; nor are these data as definitive as they seem. Turner and Irish's teeth sample was restricted to only three Classic period Hohokam sites in the Phoenix Basin: Casa Buena, La Ciudad, and the Grand Canal archaeological site.



There is every possibility that a more geographically expansive sample would produce connections with other local and distant populations. There is no reason to expect a homogenous biological-attribute sample from across the Hohokam realm in a larger sample because geographically expansive and socioeconomically active groups tend to interbreed with neighbors, visitors and captives.

In fact, there is also reason to expect that Hohokam population varied through time. As Turner and Irish noted, it will be useful to compile similar data on Preclassic Hohokam and Archaic populations. This would help interpret whether the Classic-period Hohokam represent an intrusion of a later group, impinging or overlaying themselves on an indigenous population, as many previous archaeologists have suggested. Thus, if the historic Upper Pima, including the Sobaipuri, were present earlier in the form of the Preclassic "Hohokam," then there should be a similarity between these populations. It is probably no surprise that this is one of the most important areas for future research.

If the Preclassic Hohokam (or previous Archaic people) and the Classic period Hohokam are found to have similar attributes, other studies will need to be done to support the notion that there is a lack of biological connection between the Hohokam and Pima. If there is no biological connection there, but a connection can be shown between Preclassic and Classic Hohokam populations, one could argue that the Upper Pima were in fact more recent arrivals, situating themselves in southern Arizona at about the same time as early Athapaskans and non-Athapaskan mobile groups. None of these groups, however, filled a void. Rather, all three of these groups – Upper Pima, Athapaskans, and non-Athapaskan nomads – seem to have been present at the end of Hohokam sequence so the question remains: Did they assist in the demise of the Hohokam?

Discussion

My main point is that answers to questions about the Hohokam-O'odham continuum, and O'odham origins and transformation, are within our reach. When the underlying assumptions that guide thinking are exposed it is possible to identify specific kinds of information needed to address them. An if-then approach to discovery and analysis provides an objective and verifiable way to identify and target specific data needs that can be resolutely pursued. Once information specific to that particular question or assumption is obtained it is possible to see that the nature of the question changes, then one can move on to other aspects of the problem. By relying on objective archaeological data, independent from the documentary and ethnographic records, an entirely new perspective arises.

More data are needed but a new foundation has been established that allows old questions to be asked in different ways and new questions to be posed and actually answered.

Whether there was a hiatus in occupation between the end

of the Hohokam sequence and the Kino period is important because this is usually the first step at which discussion is derailed. It is also critical with respect to understanding the operative processes. Now that it is apparent that there is no occupational gap, the issues are whether extant populations reorganized and stayed put, and which processes were in effect. The use of adobe architecture that easily erodes in near-surface contexts and previous misreads of the implications of the rancheria lifeway have led to toned-down impressions of the Upper Pima that seem to be at odds with Marcos de Niza's observations. Reconsideration is in order given recent archaeological findings. Using archaeological data it is possible to consider whether, as traditional legends suggest, people from one of the three contemporaneous non-Hohokam groups arrived from the east and caused the collapse of Hohokam buildings and social institutions before them. Dismissal of the notion that other groups had a role in the reorganization seen at the end prehistory seems to be a customary but outdated interpretation of a peaceful prehistory—another of those pesky myths.

One thing is for certain: The way we think about these issues determines how well we will visualize the data necessary to address the answer and therefore how readily we will

About the Author

Dr. Deni Seymour has been actively studying the Sobaipuri, the Apache, and contemporaneous groups for more than 20 years. Her studies have been establishing new directions for Sobaipuri research that result from extensive excavations on several Sobaipuri sites and recording and mapping work on over 30 sites. Dr. Seymour has revisited some of the issues raised by Charles Di Peso. Both Di Peso and Seymour are beneficiaries of Emil Haury's legacy. Haury was a respected scholar whose own research touched on the contact period and the Hohokam-Pima continuum. Coincidentally, Di Peso was one of two of Haury's first students and Dr. Seymour's was the last dissertation committee on which Haury served.

For research updates and references on this topic visit

www.seymourharlan.com



Ancient Petroglyph from the Wells Petroglyph Preserve. Photo courtesy of Jim Walker, The Archaeological Conservancy, Albuquerque
See details on page 10 on how you could win Old Pueblo's 2008 raffle grand prize--The Wells Petroglyph Preserve Ancient Rock Art Tour with Jim Walker.



Farewell to Our Friend Wendell Zipse

Mr. Wendell “Zip” Zipse of Oro Valley, Arizona, volunteer extraordinaire and member of Old Pueblo’s Board of Directors, passed away in late October 2007. Always someone who you could rely on, Zip served his community in many ways, bringing his upbeat attitude and charm wherever he volunteered.

Many of us knew Zip as a dedicated avocational archaeologist. Zip grew up in Illinois and worked as a lock and dam operator on the Mississippi River, a job from which he eventually retired to Prescott, Arizona. During his “retirement” he participated in many Earthwatch archaeological excavations. In 1987, he began assisting archaeologists from the Arizona State Museum, University of Arizona, in archaeological excavations at Arizona’s Homol’ovi Ruins State Park. He completed the Arizona’s Archaeological Society’s certification programs in archaeological excavation and in reconstruction and stabilization.

Upon moving from Prescott to Tucson in 2001, Zip’s friends from the Yavapai Chapter of the Arizona Archaeological Society gave him a gift membership to Old Pueblo Archaeology Center. From that moment on, he became avidly involved with all Old Pueblo’s activities. Zip helped Old Pueblo and our archaeology programs in so many ways. He painted walls, helped excavate at the Yuma Wash site, worked many hours on Old Pueblo’s annual mailings, sold mini-affle tickets at every “Third Thursdays” presentation, processed artifacts in the lab, and enthusiastically volunteered at every Old Pueblo event, including Old Pueblo’s most recent successful fundraiser, Art for Archaeology, on October 19th.

In 2002, Zip even engineered a very practical hand-made, wheeled cart used to help process flotation samples, nicknamed the “Zip-mobile.” Darla Pettit, Old Pueblo’s lab director, remembers that in 2002, Zip volunteered processing hundreds of flotation samples from the Cortaro Farms Mitigation project, so many, she recalls that she would not have known how they could have been finished without him. But these are just a few examples illustrating the extent to which Zip volunteered his time.

Zip had volunteered in our community for several organizations. In fact, it is said that he volunteered nearly every day of the week. Some of those organizations include the Veteran’s Hospital, the Golder Ranch Fire District, and a Meals on Wheels program.

Here at Old Pueblo, we are so grateful for all that Zip has done for not only the archaeology programs but for the staff as well. He has enriched our lives by being present and has set such a tremendous example of selflessness and caring through his volunteer work. We will miss our great friend, a great contributor to life, archaeology, and the community.

From the Executive Director

According to our annual education program participation numbers crunched by *Old Pueblo Archaeology* editor Dr. Courtney Rose, Old Pueblo Archaeology Center directly served 4,312 children and 2,893 adults – a total of 7,205 people – during our October 1, 2006-September 30, 2007 fiscal year. The attendance breakdown for these participating kids and adults was as follows:

Of the 4,352 children served, 2,442 participated in the OPEN2 simulated archaeological excavation learning program (94 programs for 101 classrooms from 68 schools); 1,514 attended OPENOUT presentations our instructors gave in school classrooms (41 programs, 41 classrooms, 25 schools); an estimated 200 took part in the learning and craft activities during our March 2007 Arizona Archaeology Month open house celebration at Tucson’s Vista del Rio Cultural Resource Park; 151 Tohono O’odham kids learned about archaeology and O’odham traditional crafts in a special “San Xavier Culture Day” program conducted for the San Xavier Mission School; 40 students participated in Old Pueblo’s excavations at the CNN Camp Bell archaeological site in Tucson, and 5 Tohono O’odham children participated in our “Living Archaeology-Traditional Desert Survival” children’s summer day camp program about archaeology and traditional desert cultures, held at the Tohono O’odham Nation’s Venito Garcia Library in Sells.

Of the 2,865 adults served by our programs, 340 attended Old Pueblo’s monthly Third Thursdays guest speaker presentations, and 30 signed up for Sam Greenleaf’s Arrowhead Making and Flintknapping workshops. During last winter’s excavation project at the CNN Camp Bell archaeological site, sponsored by Clayton N. Niles of CNN Realty, 190 participated in the excavations, another 213 went on guided tours of the site to see and learn about the excavations while they were in progress, and 16 attended Courtney Rose’s prefieldwork orientation session for the project. Another 116 adults went on Old Pueblo’s tours to other sites of archaeological, historical, and cultural importance. We include in our participation number our 368 Old Pueblo Archaeology Center members and subscribers, and another 755 nonmembers who received copies of the quarterly Old Pueblo Archaeology bulletin. Finally, there were another 760 folks who attended Allen Dart’s lectures that were arranged and funded by the Arizona Humanities Council, 65 who went on Allen’s archaeological site tours offered through Pima Community College, and 12 who enrolled in a class that Allen taught for the OASIS nonprofit organization. We include them as Old Pueblo program participants because the compensation Allen received from those three other organizations was donated to Old Pueblo. The numbers do not include those who visited Old Pueblo’s www.oldpueblo.org web site.



Funding for Old Pueblo's education programs for children during our recently ended fiscal year was provided by our members' annual dues and subscriptions, corporate and individual donations, revenues from our annual "Old Pueblo - Young People" fundraising raffle, and grants from the Arizona Humanities Council, the Joseph and Mary Cacioppo Foundation, the Community Foundation for Southern Arizona, the Jostens Foundation, Long Realty Cares Foundation, the Tohono O'odham Nation, and Wells Fargo. We couldn't have provided all of these services without those of you who supported us, so we really were thankful for all of your support when Thanksgiving rolled around this year.

Old Pueblo Archaeology Center hopes to reach many more children and adults with our programs and services in our current fiscal year. You can help us continue and expand our outreach by again purchasing tickets for our next annual raffle (to be held on March 18), remembering us with your donations, continuing to renew your memberships, and recruiting your friends to join us as members. Your support is essential and deeply appreciated by Old Pueblo and all of the children and adults we serve.

Wishing you a happy and prosperous New Year,

Allen Dart, RPA

Arizona Humanities Council Sponsored Presentations

ARTS AND CULTURE OF ANCIENT SOUTHERN ARIZONA HOHOKAM INDIANS

Old Pueblo Archaeology Center's director, archaeologist Allen Dart, RPA, illustrates artifacts, architecture, and other material culture of the ancient Hohokam Indians, and discusses archaeological interpretations of how these people tamed southern Arizona's Sonoran Desert for centuries before their culture mysteriously disappeared

Thursday, January 10, 2008 (6:30-7:30 p.m.)

Indian Hills Public Library

66907 Indian Hills Way, Salome, Arizona

Free. No reservations needed. For meeting details contact Sharon Hillhouse in Salome at 928-859-4271 or ihpl85348@yahoo.com. For information about the presentation subject matter contact Allen Dart in Tucson at 520-798-1201 or adart@oldpueblo.org.

Friday, January 18, 2008 (2:00-3:00 p.m.)

Casa Grande Ruins National Monument

1100 Ruins Dr., Coolidge, Arizona

Free. No reservations needed. For meeting details contact Ranger Alan Stanz at 520-723-3172 or Alan_stanz@nps.gov in Coolidge. For information about the presentation subject matter contact Allen Dart in Tucson at 520-798-1201 or adart@oldpueblo.org.

ARCHAEOLOGY AND CULTURES OF ARIZONA

Old Pueblo Archaeology Center's director, archaeologist Allen Dart, illustrates and discusses Arizona's earliest Paleoindians and Archaic period hunters and foragers, the development of archaeological villages, the Puebloan, Mogollon, Sinagua, Hohokam, Salado, and Patayan archaeological cultures, and the connections between those ancient peoples and Arizona's historical cultures.

Friday, February 15, 2008 (2:00-3:00 p.m.)

Casa Grande Ruins National Monument

1100 Ruins Dr., Coolidge, Arizona

Free. No reservations needed. For meeting details contact

Ranger Alan Stanz at 520-723-3172 or Alan_stanz@nps.gov in Coolidge. For information about the presentation subject matter contact Allen Dart in Tucson at 520-798-1201 or adart@oldpueblo.org.

SET IN STONE BUT NOT IN MEANING: SOUTHWESTERN INDIAN ROCK ART

Old Pueblo Archaeology Center's director, archaeologist Allen Dart, illustrates pictographs (rock paintings) and petroglyphs (carved symbols or pecked rocks), and discusses how even the same rock art symbol may be interpreted differently from popular, scientific, and modern Native American perspectives.

Friday, April 18, 2008 (2:00-3:00 p.m.)

Casa Grande Ruins National Monument, 1100 Ruins Dr., Coolidge, Arizona

Free. No reservations needed. For meeting details contact Ranger Alan Stanz at 520-723-3172 or Alan_stanz@nps.gov in Coolidge. For information about the presentation subject matter contact Allen Dart in Tucson at 520-798-1201 or adart@oldpueblo.org.

ANCIENT NATIVE AMERICAN POTTERY OF SOUTHERN ARIZONA

Using digital images and actual ancient pottery, archaeologist Allen Dart, director of Old Pueblo Archaeology Center, shows Native American ceramic styles that characterized specific eras in Arizona prehistory and history, and discusses how archaeologists use pottery for dating archaeological sites and interpreting ancient lifeways.

Friday, March 21, 2008 (2:00-3:00 p.m.)

Casa Grande Ruins National Monument

1100 Ruins Dr., Coolidge, Arizona

Free. No reservations needed. For meeting details contact Ranger Alan Stanz at 520-723-3172 or Alan_stanz@nps.gov in Coolidge. For information about the presentation subject matter contact Allen Dart in Tucson at 520-798-1201 or adart@oldpueblo.org.



Old Pueblo's "Third Thursdays"

Presentations

Old Pueblo Archaeology Center's monthly "Third Thursdays" lecture programs are held on the third Thursday of each month. They are free with no advance reservations required. Location: Old Pueblo Archaeology Center, 5100 W. Ina Road, Building No. 8, in the Marana Town Limits (northwest Tucson metro area), Arizona. For more information contact Old Pueblo at 520-798-1201 or info@oldpueblo.org.

•January 17, 2008: To be scheduled

•February 21, 2008

Ancient Burial Practices at the Yuma Wash Hohokam Archaeological Site by John A. McClelland and Jessica Cerzo-Roman.

•March 20, 2008

Excavations at a Prehistoric Gateway Community in the Upper San Pedro Valley by Douglas B. Craig, Ph.D..

March is Archaeology Awareness Month -- Old Pueblo Archaeology Center Events

•March 1, 2008

Ventana Cave and Tohono O'odham Nation Archaeology Month Tour with archaeologist Allen Dart, RPA.

•March 12, 2008

What Do We Do With Our Ancestors? Free presentation by archaeologist Allen Dart, RPA, at Scottsdale Civic Center Library, Scottsdale. Funded by the Arizona Humanities Council.

•March 18, 2008

"Old Pueblo - Young People" Raffle. See page 11 for grand prizes.

•March 28, 2008

Male Bonding Around the Campfire: Constructing Myths of Hohokam Militarism. A free presentation at Old Pueblo Archaeology Center by Ann Hibner Koblitz, Ph.D. Funded by the Arizona Archaeological Council.

•March 29, 2008

Baby Jesus Ridge Petroglyphs Site. Guided tour with archaeologist Sharon F. Urban.



Win a trip to the Grand Canyon in Old Pueblo's March 2008 raffle. See Page 11.
Photo courtesy of National Park Service.

Traditional Technology Workshops

TRADITIONAL POTTERY MAKING LEVEL 1 WORKSHOP WITH JOHN GUERIN

This series of seven Sunday afternoon pottery-making class sessions offered by artist John Guerin includes historical background of Native American pottery making in the Southwest and a clay-gathering field trip. The Level 1 class demonstrates pottery making techniques the instructor has learned from modern Native American potters, using gourd scrapers, mineral paints, and yucca brushes instead of modern potters' wheels and paint. The course introduces some history of southwestern Ancestral and Modern Puebloan, Mogollon, and Hohokam pottery-making, includes a field trip in which participants dig their own clay, and demonstrates initial steps in forming, shaping and smoothing, and completion of bowls, jars, canteens, ladles, and rattles of both smooth and corrugated pottery, by scraping, sanding, polishing, slipping and painting. The paddle-and-anvil hand-building method is also demonstrated.

Sundays, February 3 - March 16, 2008, 2 to 5 p.m.

Location: Old Pueblo Archaeology Center, 5100 W. Ina Road, Building 8, Tucson-Marana.

Fee \$69 (\$55.20 for Old Pueblo Archaeology Center and Pueblo Grande Museum Auxiliary members); includes all materials except clay, which participants will collect during class field trip.

Advance reservations required: 520-798-1201 or info@oldpueblo.org.

LEVEL 2 POTTERY MAKING WORKSHOP

Level 2 builds on the Level 1 techniques, focusing on larger pots, applique, carving, sgraffito, Pueblo-type storytellers, Zuni-type owls, and micaceous slips. Scheduled on Sundays, April 6-May, 2008 from 2-5 p.m. Fee \$79 or \$63.20 for Old Pueblo and Pueblo Grande Auxiliary members.

ARROWHEAD-MAKING & FLINTKNAPPING WORKSHOP

Flintknapper Sam Greenleaf teaches Old Pueblo's hands-on, 3-hour workshop on how to make arrowheads and spear-points out of stone to better understand how ancient people made and used stone artifacts. Each 3-hour class is limited to 8 registrants age 16 and older.

Sunday, January 13, 2008, noon to 3 p.m.

Sunday, February 24, 2008, noon to 3 p.m.

Sunday, March 30, 2008, noon to 3 p.m.

Sunday, April 27, 2008, noon to 3 p.m.

Location: Old Pueblo Archaeology Center, 5100 W. Ina Road, Building 8, Tucson-Marana.

Fee \$25 (\$20 for Old Pueblo Archaeology Center and Pueblo Grande Museum Auxiliary members)

Advance reservations required: 520-798-1201

Old Pueblo's "Traditional Pottery Making" and "Arrowhead Making" 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.



Get your tickets for the “Old Pueblo--Young People” Raffle. The drawing will be held March 18, 2008.

There are many prizes that can be won! This year’s grand prizes include a stay at the Maswik Lodge donated by Xanterra South Rim LLC, a Spanish Colonial Sonoran Missions tour donated by the Southwestern Mission Research Center, *The Wells Petroglyph Preserve Ancient Rock Art* tour with Jim Walker, Vice President and Southwest Regional Director of the Archaeological Conservancy.

For more information contact Old Pueblo Archaeology Center at 520-798-1201 or info@oldpueblo.org

Printed copies of the Old Pueblo Archaeology bulletin normally include only two ink colors to save on publication costs but our digital versions of the bulletin usually include full-color photos. For example of a recent full-color issue check out Old Pueblo’s www.oldpueblo.org/assets/prioropab.pdf web page. If you would like to receive the full-color version of Old Pueblo Archaeology for your membership or subscription please contact Old Pueblo Archaeology Center at 520-798-1201 or info@oldpueblo.org to let us know the email address to which you want your bulletins sent.

Old Pueblo’s Board of Directors

December 2007

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Time to renew?

If you received this issue in one of our mass-mailings, an 8-digit number in your address label indicates the year, month, and day your Old Pueblo Archaeology subscription will expire. If your label month is the same as or earlier than the month of this bulletin issue you need to renew your subscription or membership in order to receive more issues.

The Old Pueblo Archaeology Center Membership Program

Archaeology Opportunities Annual Membership & Subscription Rates

- | | |
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| <input type="checkbox"/> Individual \$40
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|---|---|

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.

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

Old Pueblo Archaeology

Bulletin of Old Pueblo Archaeology Center

Located at 5100 West Ina Road, Buildings 6, 7, & 8 in Marana, Arizona

Mailing Address: PO Box 40577, Tucson, AZ 85717-0577

520-798-1201 www.oldpueblo.org

December 2007 *Old Pueblo Archaeology*



Front view of Sonora's Cocospera mission taken around 1925. You could win a trip to Cocospera and other Spanish Colonial missions in Sonora in Old Pueblo's 2008 raffle.

See Page 11.

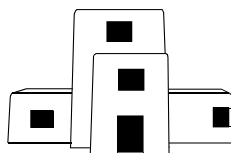
Photo courtesy of National Park Service.

2008 Old Pueblo--Young People Raffle Ticket Inside

Old Pueblo Archaeology Center
PO Box 40577
Tucson AZ 85717-0577

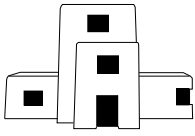
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Editor: Courtney Rose



Old Pueblo Archaeology Center

5100 W. Ina Road, Buildings 6, 7, & 8, just west of Interstate 10 in the Town of Marana, Arizona

Mailing Address: PO Box 40577, Tucson AZ 85717-0577

A 501(c)(3) Nonprofit Corporation

(520)798-1201 Voice, (520) 798-1966 Fax

December 2007

Dear archaeological education and research supporter:

Accompanying this letter are 12 tickets for Old Pueblo's annual "Old Pueblo - Young People" raffle that will be held on Tuesday, March 18, 2008. Our annual raffle makes it possible for Old Pueblo to provide classroom scholarships to pay archaeology education program fees for children whose parents and schools are too poor to afford what we normally charge for our OPEN2 simulated archaeological dig field trip, our OPENOUT in-classroom education programs for kids, and our guided archaeological site tours for schools.

In accordance with U.S. postal regulations, no purchase is required to enter Old Pueblo's drawing, so if you wish to participate in our raffle without making a donation you may check the "No Donation" box on each ticket stub that you return to Old Pueblo. However, I hope you will consider making a donation to Old Pueblo for all or some of these tickets, to help us continue offering our education programs. Suggested donation amounts are \$20 for all 12 tickets, \$10 for 6, or \$2 for a single ticket.

If you would like to help us out with our fundraising even more by buying or selling extra raffle tickets, or if you'd like a listing of prizes that will be given away in the raffle, please call Old Pueblo at 520-798-1201 or email us at info@oldpueblo.org.

In addition to making a contribution with your raffle ticket entry, you can help Old Pueblo Archaeology Center out by making additional donations and by being an Old Pueblo member. Enclosed with this letter is information about our membership rates, with an application form. If you are not already a member please consider joining, and if you are a member please think about renewing your membership early or upgrading it to a higher level. The membership application form also includes a blank line on which you can indicate the amount of any donation offered.

Old Pueblo can accept cash, checks, Mastercard and Visa for donations as well as membership fees. Also, we can accept Visa and Mastercard donations and membership payments through the Old Pueblo Archaeology Center web site. To donate online please visit our www.oldpueblo.org/donate.html web page and click on the blue-highlighted words "donation form." You can start or renew your Old Pueblo membership by visiting our www.oldpueblo.org/member.html page and clicking on the blue-highlighted "membership form."

We really need your assistance to expose underprivileged kids to the joys of archaeology, science, and math, so please consider helping us out with this fundraiser.

Have a great new year,

Allen Dart, RPA, Executive Director

P.S. The back side of this letter lists many of Old Pueblo's educational activities and tours scheduled for the next few months, and we anticipate adding more activities. For updates please contact us, or visit our www.oldpueblo.org web site and click on the Upcoming Activities button.

Upcoming Activities of Old Pueblo Archaeology Center & Some Other Organizations*

For details please contact Old Pueblo at 798-1201 or info@oldpueblo.org or visit our web site www.oldpueblo.org.

January 8, 2008. “Ventana Cave and Tohono O’odham Nation Archaeology and Culture” (ST146) Pima Community College study tour with archaeologist Allen Dart*	February 28, 2008. “What Do We Do with Our Ancestors?” free presentation at Sonoita Creek State Natural Area, Patagonia*
January 10, 2008. “Arts and Culture of Ancient Southern Arizona Hohokam Indians” free presentation at Indian Hills Public Library, Salome*	March 1, 2008. “Ventana Cave and Tohono O’odham Nation Archaeology Month Tour” with archaeologist Allen Dart
January 13, 2008. Arrowhead-making and flintknapping workshop at Old Pueblo Archaeology Center with Sam Greenleaf	March 12, 2008. “What Do We Do with Our Ancestors?” free presentation at Scottsdale Civic Center Library, Scottsdale*
January 15, 2008. “What Do We Do with Our Ancestors?” free presentation at Clemenceau School Museum, Cottonwood, Arizona*	March 13, 2008. “Ancient Native American Pottery of Southern Arizona” free presentation at Sonoita Creek State Natural Area, Patagonia*
January 17, 2008. “Third Thursdays” program at Old Pueblo: “The Nineteenth Century Lead Crosses Discovery near Tucson” with archaeologist Peter L. Steere, Ph.D.	March 15, 2008. “Picture Rocks Petroglyphs Site: Quadrupeds, People, and Other Symbols in Stone” guided tour with archaeologist Allen Dart
January 17, 2008. “Archaeology and Cultures of Arizona” free presentation at Arizona Senior Academy, Tucson*	March 20, 2008. “Third Thursdays” program at Old Pueblo: “Excavations at a Prehistoric Gateway Community in the Upper San Pedro Valley” with archaeologist Douglas B. Craig, Ph.D.
January 18, 2008. “Arts and Culture of Ancient Southern Arizona Hohokam Indians” free presentation at Casa Grande Ruins National Monument, Coolidge*	Friday March 21, 2008. “Ancient Native American Pottery of Southern Arizona” free presentation at Casa Grande Ruins National Monument, Coolidge*
January 22, 2008. “Casa Grande Ruins and Middle Gila Valley Archaeology and History” (ST147) Pima Community College study tour with archaeologist Allen Dart*	March 28, 2008. “Male Bonding Around the Campfire: Constructing Myths of Hohokam Militarism” free presentation by Ann Hibner Koblitz, Ph.D., at Old Pueblo
January 24, 2008. “Set in Stone but Not in Meaning: Southwestern Indian Rock Art” free presentation at Sonoita Creek State Natural Area, Patagonia*	March 29, 2008. “Baby Jesus Ridge Petroglyphs Site” guided tour with archaeologist Sharon F. Urban
February 3-March 16, 2008 (Sundays). Traditional Pottery Making Level 1 Workshop with John Guerin at Old Pueblo	March 30, 2008. Arrowhead-making and flintknapping workshop at Old Pueblo Archaeology Center with Sam Greenleaf
February 5, 2008. “Ventana Cave and Tohono O’odham Nation Archaeology and Culture” (ST146) Pima Community College study tour with archaeologist Allen Dart*	April 6-May 17, 2008 (Sundays). Traditional Pottery Making Level 2 Workshop with John Guerin at Old Pueblo
February 15, 2008. “Archaeology and Cultures of Arizona” free presentation at Casa Grande Ruins National Monument, Coolidge*	April 10, 2008. “What Do We Do with Our Ancestors?” free presentation at La Pilita Museum, 420 S. Main Avenue, Tucson*
February 19, 2008. “Tucson-Marana Rock Art and Archaeology” (ST149) Pima Community College study tour with archaeologist Allen Dart*	April 15, 2008. “Arts and Culture of Ancient Southern Arizona Hohokam Indians” free presentation at Heard Museum West, Surprise, Arizona*
February 21, 2008. “Third Thursdays” program at Old Pueblo: “Ancient Burial Practices at the Yuma Wash Hohokam Archaeological Site” with John A. McClelland & Jessica Cerezo-Roman	April 17, 2008. “Third Thursdays” program at Old Pueblo
February 24, 2008. Arrowhead-making and flintknapping workshop at Old Pueblo Archaeology Center with Sam Greenleaf	April 18, 2008. “Set in Stone but Not in Meaning: Southwestern Indian Rock Art” free presentation at Casa Grande Ruins National Monument, Coolidge*
February 26, 2008. “Ventana Cave and Tohono O’odham Nation Archaeology and Culture” (ST146) Pima Community College study tour with archaeologist Allen Dart*	April 27, 2008. Arrowhead-making and flintknapping workshop at Old Pueblo Archaeology Center with Sam Greenleaf

* Asterisked programs are sponsored by other organizations besides Old Pueblo Archaeology Center.