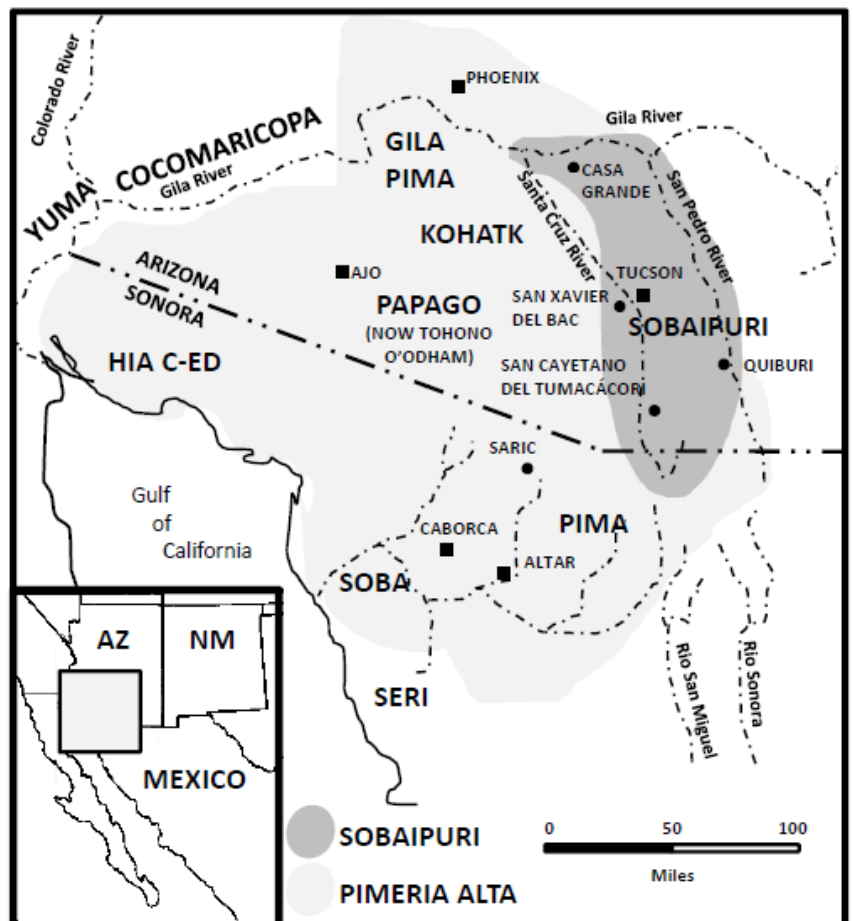


Dating the Sobaípurí: A Case Study in Chronology Building and Archaeological Interpretation

Deni J. Seymour, Ph.D.

When I began working in southern Arizona in 1980, next to nothing was known about the period following the “collapse” of Hohokam society in the late fourteenth century and the arrival of Father Kino and Captain Manje in the late seventeenth century. Not only had few sites from this period been identified, but those that had been were almost impossible to accurately date, unless they happened to have European artifacts associated with them.

With the intention of trying to close this data gap, over the past 30 years I have visited and documented more than 70 Sobaípurí sites in the San Pedro and Santa Cruz valleys. In addition, I have collected dozens of chronometric samples in an attempt to independently date the occupations of those sites. In this article, I summarize the results of my long-term research efforts and discuss the implications for understanding the transition from prehistory to history in the southern Southwest. Chronometric dating is key to this endeavor.



Overview of Sobaípurí territory and study area.

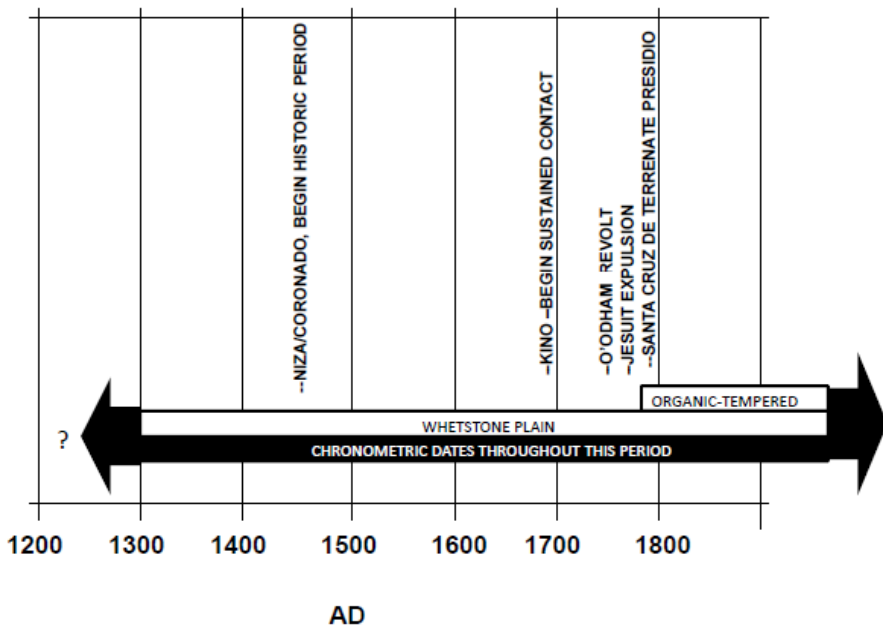
CHRONOLOGY BUILDING

At the time I began my research, there was a grand total of nine chronometric dates for all known Sobaípurí sites! Fortunately, the situation has improved considerably in recent years. We now have close to 100 dates from Sobaípurí sites, including multiple dates from many sites and as many as eight dates from a couple of them. New and improved dating methods have also become available, thereby making it possible to date the occupations of sites with greater precision and accuracy.

Dating Methods

A key development in this regard is that radiocarbon dating has improved and AMS (accelerator mass spectrometry) radiocarbon dating can date tiny flecks of charcoal. These improvements mean many things, but one of the most important is that we can easily date grass leaves or seeds, charred or not, and expect to receive an accurate and precise result that reflects the use of the material in a specific behavioral context. For example, we can date the grass that lined a rock shelter storage feature and be relatively confident that freshly harvested grass was placed there. Likewise, we can date a single seed and know that it was grown in a specific year. It is no longer necessary to send large samples of materials that could include an unknown mix of annual and perennial plants, or chunks from different plants that had different

life histories and are of different ages. This is important because annuals (grass, leaves, seeds, etc.) grow and die each year and give a more precise date of the actual use of the plant material and therefore the feature. Perennials (trees, some shrubs), on the other hand, typically grow over many years, which means we may be dating the inner or earlier growth rather than when the plant or tree died or was harvested. This can potentially result in hundreds of years of difference in age, providing vastly different ages for inside versus outside growth. Moreover, the more durable perennial species may lie on the desert floor for decades, even centuries, before they are picked



Key events and range of dates for terminal prehistoric and protohistoric periods and Sobaipuri/O'odham pottery types.

up and incorporated into a cultural context; that is, before they are used in a fire or in house construction. This is commonly referred to as the *old wood* problem—a term coined by archaeologist Michael Schiffer—which in reality encompasses many related problems.

We also now have luminescence dating that includes thermoluminescence (TL) and optically stimulated luminescence (OSL). In brief, TL documents the last time a material was heated to a certain temperature. This can be when a pot, brick, rock, or stone flake was fired, either during manufacture, when it was heated on a cooking fire, or if it was burned in a conflagration that destroyed a house. In contrast, OSL dates the last time the quartz, feldspar, or similar particles were last exposed to light. This should represent when a sample was manufactured (or deposited if sand in a natural stratum) and can be a useful dating technique for pot sherds, adobes, fired bricks, and even canal sediments.

Luminescence dating was new to me a decade and a half ago, so I tested its reliability in the El Paso area and southern Arizona to be sure that it was as consistently reliable as radiocarbon and that dating results between the two techniques were comparable. For most of the period in which the Sobaipuri were in southern Arizona, radiocarbon is not especially useful because sometime in the 1600s results are

characterized by date ranges that are too long and imprecise and have multiple intercepts with the calibration curve. I was therefore especially pleased when the results of my luminescence dating tests were favorable. On several sites I compared surface sherds from a specific prehistoric period to historic mission sherds that were lying next to one another, and the dates came out as expected. I then compared historic mission sherds from a single pot break, and they, too, produced overlapping date ranges, as did surface and buried materials from a single component site. Finally, I compared radiocarbon to luminescence dates from the same feature, as well as dates from historically documented contexts, and once again the results came out right on the dot. For example, from Santa Cruz de Terrenate Presidio, which we know from historic documents was occupied between 1775 and 1780, I obtained a luminescence date of 1774 ± 35 . (The “ \pm ” indicates the date is believed accurate to within 35 years; therefore, in this instance the vessel could date to any time during the AD 1739–1809 range.) Likewise, a luminescence sample from a small house and church associated with Father Kino at Guevavi produced an end date of no later than 1716, which is consistent with historical documents indicating the structure was built in 1701 and destroyed a short time thereafter. Similarly, a date from a sherd on the floor of the burned adobe-walled structure associated with the 1698 battle at Santa Cruz de Gaybanipitea came back as 1710 ± 40 or AD 1670–1750. These are exceptionally precise dates and were accurate to the historical events indicated.



Adobe-walled structure at Santa Cruz de Gaybanipitea.

Formation Processes

It's important, however, not to forget that there can be *old pot* and *old rock* problems with luminescence dating, similar to the *old wood* problem with radiocarbon dating. An OSL result, indicating the date of manufacture (when the temper was last subjected to light), may be very different from a TL result which reflects the last time the sherd or pot was subjected to high heat. We know that an old pot may have been brought to a new village and used for decades before it broke. This may not matter if it is a cooking vessel that repeatedly reached high enough temperatures to reset the clock, so to speak, but the difference can be substantial for storage or serving vessels. Burned material from an earlier firing event may be incorporated into the fill of a later pit, but not sufficiently heated to reflect this later activity; or a sherd from an earlier occupation may fortuitously end up in the house fill. Nor are we guaranteed that the sand particles in mortar were exposed to light during the mixing process, so they may reflect ages much earlier than wall construction. All of these considerations and more go into assessing which samples to collect and analyze and how to interpret the results.

Luminescence dating may also return dates very different from radiocarbon results (or from historical accounts of a known place) because of differences in what is actually being dated. For example, a burned post from a house floor may date years earlier than a luminescence-dated sherd on the floor because the wood in the posthole reflects the death of the tree and possibly the construction date of the

feature, whereas the pot may have been more recently made. Alternatively, if fresh bendable wood was used for the house superstructure, the date on the branch may be later than the sherd from the vessel break if the vessel was an heirloom that was passed down from mother to daughter, or if used by a very old woman and transferred or curated from house to house during rebuilding events or as settlements shifted along the river.

Every effort was made to take these formation processes into account when selecting samples to be dated. Recognizing the effects of natural process (such as erosion) on the integrity of archaeological contexts is especially important, such as infilling events that might redeposit sherds and charcoal from nearby surfaces into house depressions. Fortunately, Sobaipuri houses have household work areas just outside, so often the material washed in represents the same use event as the house we are hoping to date. We discovered this was the case at AZ EE:9:153(ASM), the Sonoita Creek site, where dates from the upper and lower fills were essentially the same even though infilling events could be discerned by the thin laminated wash layers. On the other hand, the uppermost strata in some of these houses contained metal artifacts indicative of a later Apache use, including a sharpened horseshoe nail and a whetstone.

Cultural formation processes are also important to take into account. For example, we know from ethnohistoric documents that many roasting pits were used repeatedly over the decades, even centuries,



Di Peso's "fort" at Santa Cruz del Pitaitutgam.

and by different groups. Consequently, a single date from the feature can be misleading. Many different groups may have used a location, even if there is evidence of only short-term use. Such is the case with the so-called mescal pit at Di Peso's Santa Cruz del Pitaitutgam, which seems to have been constructed late in the history of the site. Moreover, earlier sherds may be incorporated into later features, like the walls at Santa Cruz de Terrenate Presidio and Santa Cruz de Gaybanipitea, which contained prehistoric deposits and artifacts in the fill and in the adobe matrix. To get around this potential problem, I made sure to date the walls at Santa Cruz de Terrenate Presidio only by OSL to avoid dating older occupational events that might be captured by TL.

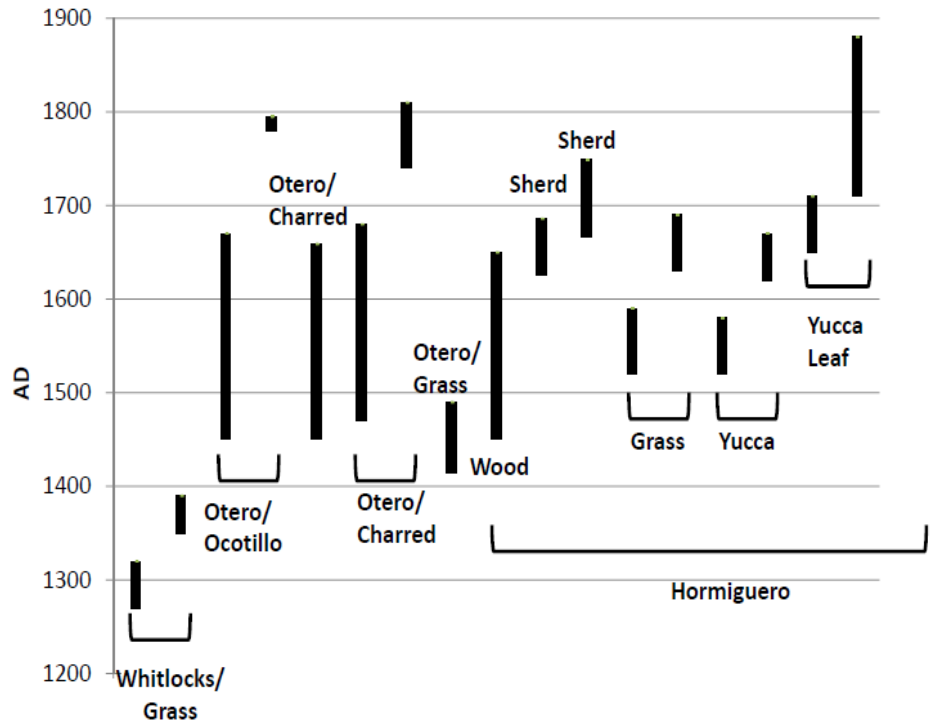
Still, even when pottery was not made or used by a certain group inhabiting a specific site it can provide a useful way to date a site assuming it was made by a contemporaneous group. Raiding, scavenging, migration, and trading are ethnographically documented means by which the pottery of one group might find its way into sites of another. The value of this pottery for dating is justified when the processes by which it got there are taken into account. A group need not have made pottery for sherds to be of value in dating a group's presence. We learned this from AZ DD:8:44(ASM), the Sharples site, where a Canutillo-complex mobile group presence was documented on the basis of housing and flaked stone artifacts, whereas the pottery was early O'dham.

Sampling Considerations

It is always best to run multiple samples from a site and from specific features, even though it can be costly. One reason this should be done on protohistoric sites is to capture multiple occupation episodes, which is the norm during this period. Many groups I study were highly mobile, so they may have visited a site in AD 1400 and not come back for a decade, or they may have returned each year. If they followed

this settlement pattern for a century, dating results might look like a long-term occupation centered in the fifteenth century but this inference would be inaccurate. This is why multiple lines of evidence must be used when assessing what to date and how to interpret the results, as was done at the Sharples site. Another good example comes from AZ CC:12:58(ASM), an Apache site in the Peloncillo Mountains, where radiocarbon dates on grass and leaves from storage platforms and luminescence dates on Apache pottery cluster in the late 1600s and early 1700s.

If we average the results from site AZ CC:12:58(ASM), the occupation would be between AD 1600 and 1750, suggesting a long occupation indeed. Yet, if we assume a pattern of site use that is consistent with ethnographically based models of Apache mobility, it is more reasonable not to average the results. Rather, each dated sample should be used as a point in time that these mobile people visited this location, depositing their cached items for a future visit, perhaps two or three years later. Probably not every visit is documented in the archaeological record because sometimes people did not drop pots or refurbish the storage platform. Moreover, not every datable event will actually be sampled owing to cost and also preservation events.



Radiocarbon and luminescence dates from AZ CC:12:58(ASM).

Because of standard deviations (for example, a date with a plus-minus factor of ± 50 years), regarding the hypothetical dating result above, a group's AD 1400 visit might look like an AD 1350 one. Or, if the standard deviation was ± 50 we would not be able to differentiate between a 1350 occupation and a 1450 one. When we are fortunate, and select the right samples, the standard deviation may be even smaller and we may be able to distinguish between distinct occupations on a shorter scale. This occurred at the Sharples site on the Santa Cruz River near Tubac.

Unlike the Chiricahua Apache and many of their O'odham kinsmen, the Sobaipuri lived relatively stationary lives, bound to their irrigation canals and fields, but they seem to have moved every decade or two. Many years later, say 40 years, they or another family sometimes returned to the initial location. It is important to capture this 40-year break in occupation by collecting multiple samples from different house arrangements, not averaging all the dates from the site, and not assuming a single uninterrupted occupation. This approach can be challenging because not all structures contain datable material.

Thermal features, such as roasting and fire pits, can be valuable sources of information on subsistence and the organization of activities. These types of features tend to provide the best chances for dating as well because they often contain burned material such as wood, seeds, rocks, and bone. Yet, it is crucial to be sure that the feature being sampled relates to the correct period, which for my research

purposes means that it was associated with the Sobaípuri occupation. Too often isolated fire pits are sampled without an understanding of how they relate to complex site histories. Because most protohistoric and historic Native American sites, including Sobaípuri sites, were used repeatedly over time (multi-component) there are usually features and artifacts from earlier and later residents and visitors. Too often archaeologists extract botanical or faunal samples without considering the age of the feature or who used it. This has been a problem for understanding Sobaípuri subsistence and changes in resource use through time, because too often researchers sample features filled with Spanish trash rather than that deposited by the Sobaípuri. This is especially a problem at mission sites, such as Guevavi, San Xavier, and San Agustín, where the Spanish occupational areas present the most robust assemblages and features and therefore tend to be the focus of research. The native loci have been largely ignored, although many researchers have attributed Spanish activity to the Sobaípuri, and Franciscan and later features have most often been attributed to the Jesuits or to Sobaípuri activity. Changes in Sobaípuri subsistence practices through time cannot be assessed if features are not placed in the correct temporal and cultural contexts.



Sobaípuri fire pit.

Many thermal features sampled on Sobaípuri sites have produced dates showing that they are unrelated to the Sobaípuri occupation. One example of this is a “mescal pit” at Di Peso’s Santa Cruz del Pitaitutgam that has been considered

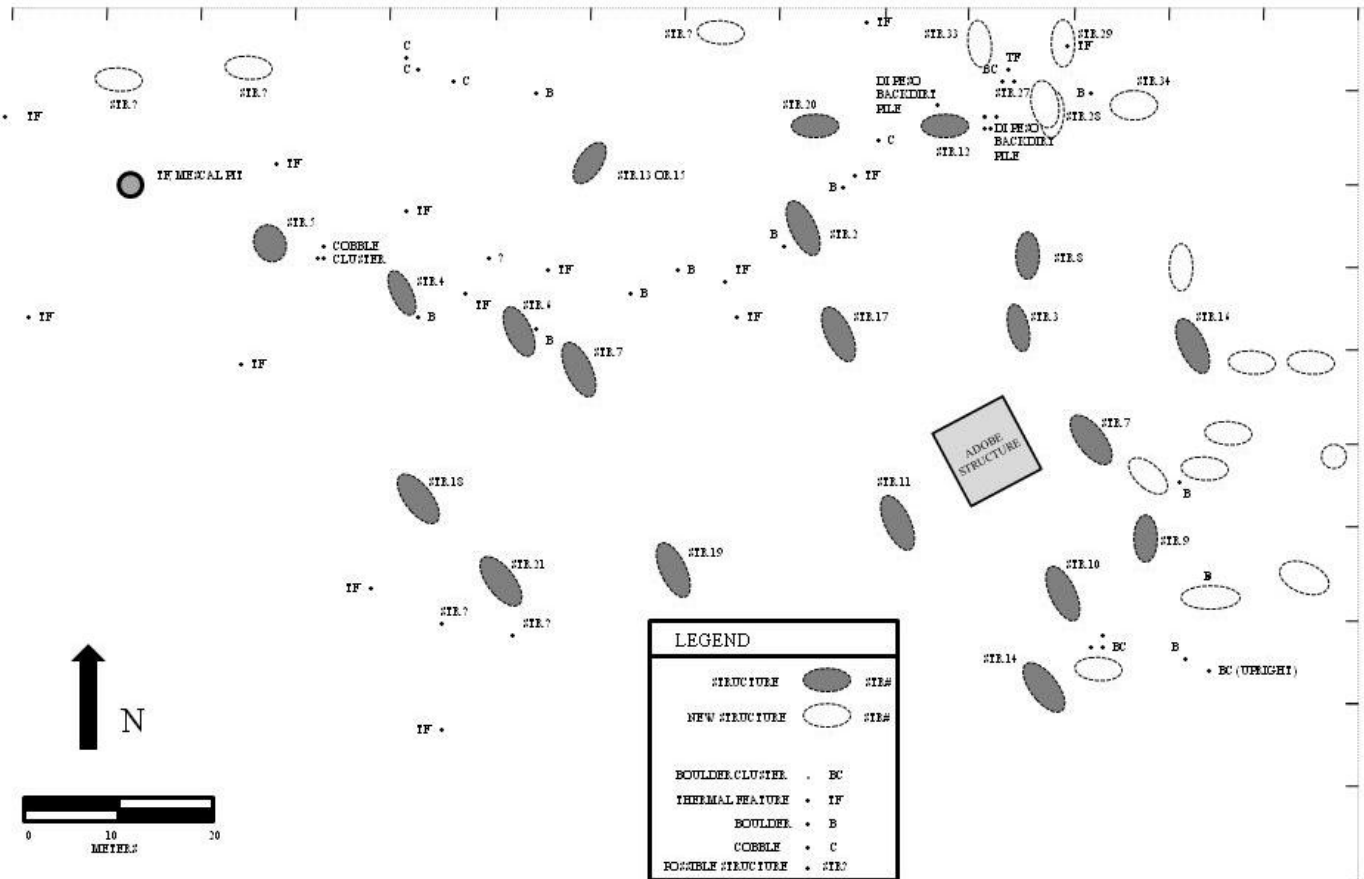
diagnostic of the Sobaípuri. Multiple efforts to date this feature repeatedly produced results too recent to date, indicating that instead it is a very late historic feature (one sample dated to the early 1900s!) that has nothing to do with the Sobaípuri. The photo on the left shows another thermal feature at the site that was situated in an open area between Sobaípuri structures, yet it dates to AD 340 ±130, much too early for the Sobaípuri. This problem has been encountered at a number of Sobaípuri sites, including one inferred to be San Cayetano del Tumacácori where a thermal feature containing a goat or sheep bone produced a date long after the site was documented to have been abandoned, despite numerous other dates that place the nearby houses in the Kino period.



Prehistoric fire pit found in middle of Sobaípuri house area.

Here at San Cayetano del Tumacácori numerous thermal features are associated with the Sobaípuri component based on their dates and on arrangement relative to structures. At Santa Cruz del Pitaitutgam and the Sonoita Creek site numerous thermal features have been directly related to the Sobaípuri

component based on dates, historic period seeds (fruit pits) and bones, and on their consistent arrangement relative to other Sobaipuri features. Consistent positioning of hearths inside and outside structures, small fire pits near structures, and larger roasting pits at a distance with period-appropriate dates and artifacts indicate that there are predictable relationships between thermal features and structures.

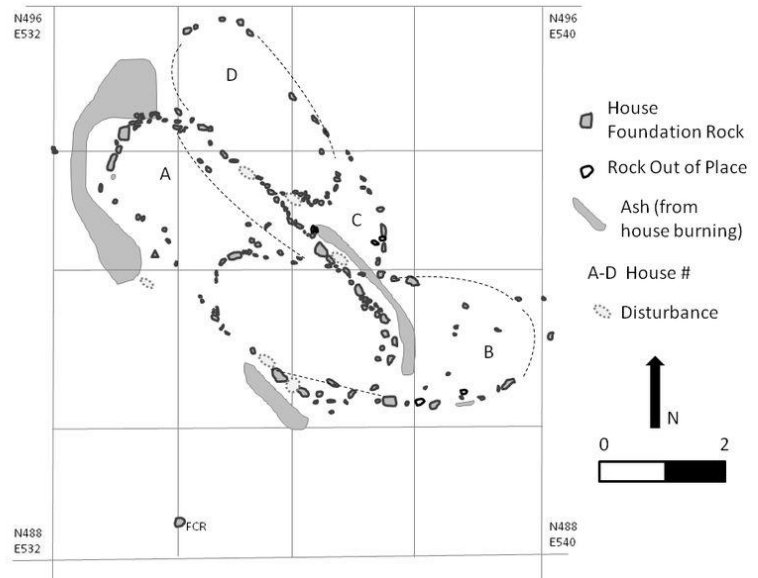


Site map of Santa Cruz del Pitaitutgam, AZ EE:8:15(ASM), showing numerous additional thermal features.

Many Sobaipuri thermal features are difficult to identify and therefore go unnoticed. As this map of Santa Cruz del Pitaitutgam shows, the site has dozens of such features, some related to the Sobaipuri component and some that date earlier and later. Yet, only one of these was recognized by Di Peso and by more modern researchers. Thermal features are important for understanding key aspects of Sobaipuri lifeways, which is one reason to document their presence when recording sites and to sample such features when excavating. Yet, because these features are so close to the surface and have been subjected to erosive processes they often lack dateable material. As noted, sometimes the best cases actually relate to later use or European presence. Even though Sobaipuri thermal features often contain no or only remnant fill, it is far better to focus on these meager remains than to attribute something to the Sobaipuri that is unrelated to them.

DATING SOBAÍPURI SITES

As a result of more precise dating techniques, we have been able to sort out long sequences of occupation at many Sobaípurí sites. Repeated use of many sites is reinforced by site maps that reveal linear rows of well-organized structures with other structure fragments that are oriented in other directions. Up to four distinct occupations have been documented at some sites, with houses superimposed on one another in one location. The best evidence comes from excavated sites such as Santa Cruz de Gaybanipitea, AZ EE:8:283 (ASM), where four occupations have been documented and Guevavi, AZ EE:9:132 (ASM) and Santa Cruz del Pitaitutgam, AZ EE:8:15 (ASM), where three construction episodes were identified. At San Cayetano del Tumacácori, AZ DD:8:19 (ASM), two construction events were revealed in superimposed structures. Hints can be seen on the surface as well where at least two are visible on many more unexcavated sites, indicating that reuse of a location was the norm.



Four superimposed houses at Santa Cruz de Gaybanipitea.

Chronometric dates and documentary sources further suggest that each occupation was short-term, on the order of 10 or 20 years before the occupants moved to a new location. This is consistent with ethnographic models of O'odham village shift (drift). Residents were tethered to the river margin owing to their investment in irrigation canals and fields, so they tended to relocate along certain segments of the river. They might move more often, as in the case of Santa Cruz de Gaybanipitea where a key 1698 battle occurred and many people were killed. They might move farther away, to a different river segment or even to a different valley, as did the people of the middle San Pedro after the 1698 battle, but they returned a few years later to occupy a new location near the old village. Usually more than one village was present at any one time along a certain segment of the river, suggesting a higher level of social organization based on irrigation canal maintenance and also on defense.

Recently obtained dates also tell us that there were O'odham occupations into the 1800s on the San Pedro River. Traditionally it has been thought that O'odham occupation along the San Pedro ended when Father Nentvig noted that the valley was abandoned in 1762 and all the Sobaípurí went west to live in other settlements on the Santa Cruz River. However, dates and material culture from at least five sites provide evidence of continued occupations here well into the late 1800s, and this is supported by more newly investigated documentary sources. The revealing O'odham material culture includes green glaze and organic-tempered pottery. The organic-tempered pottery does not appear until the 1770s, while the glaze wares are even later. Santa Cruz de Terrenate Presidio also has organic-tempered wares but these are associated with the 1775–1780 presidio occupation and are related to the Sobaípurí only in the sense that O'odham are known to have helped build the presidio and may have served as domestic servants, laborers, and scouts and provided vessels as trade wares.

Chronometric dates also provide evidence of an early occupation in southern Arizona that predates the 1600s. Until recently, Sobaípurí occupation along the rivers was thought to be temporally shallow.

Chronometric dates from a number of sites on the San Pedro and Santa Cruz rivers indicate that these Sobaípurí villages were present when Marcos de Niza traveled through the region in 1539. It was probably these people that he referred to as generous and whose fields were bountiful with canals and fields like an evergreen garden. Even the site Di Peso excavated, Santa Cruz del Pitaitutgam near Fairbank, has produced dates from this period (among the eight chronometric samples analyzed) suggesting this might be one of the villages Marcos de Niza visited during his northward trek.



Excavated Sobaípurí house at the Sonoita Creek site that dates to the 1400s.

Yet, an even earlier Sobaípurí presence has been detected. The first early dates were from the Santa Cruz River where two sites—the Sonoita Creek site and the Sharples site—produced multiple dates in the 1400s, with hints of an earlier presence both in the dates themselves and in the presence of earlier house fragments. At the Sonoita Creek site, for example, radiocarbon dates on Sobaípurí features provided confirmation of numerous luminescence-dated pottery samples, placing this occupation in the 1400s. Four different Sobaípurí features were dated, along with two prehistoric ones positioned about a meter deeper. Of the eight dates from this site, three are from one Sobaípurí structure, run in an attempt to understand in-filling processes and correlate luminescence and radiocarbon results. These are very good samples taken from clear Sobaípurí contexts, a variety of contexts within a single site, with some

samples from the same features but different vessels to verify the results, and using different dating techniques (C14 and luminescence), which allow confirmation of the results and help us understand the events we are actually dating. It does not get any better than this, even on big-budget projects!

We now know that early structures were often partially dismantled, the rocks removed to allow for new house alignments and some were used in later structures. Here at the Sonoita Creek site partial alignments of house walls, set apart from the other dated house rows, document an even earlier Sobaípurí occupation than the 1400s.

At the Sharples site, eight samples date the prehistoric occupation and a series of terminal prehistoric/protohistoric ones with evidence of three different protohistoric groups detected in the artifacts. Mobile-group structures and other features, described in publications, were dated by both AMS and luminescence techniques, including a sherd sample from the floor of a mobile-group structure (perfect context) dating solidly within the 1400s. As noted, the O’odham sherds were likely obtained from nearby settlements, possibly through trading or gifting, or perhaps they were obtained in raids.



Early house wall remnant at the Sonoita Creek site that likely predates the 1400s.

Work on the San Pedro Sobaípurí sites tells us how our research design can inadvertently prohibit us from seeing multiple, especially earlier occupations. My recent efforts to remap all known Sobaípurí sites were complicated by multiple-use episodes. My initial goal had been to plot all the houses and date sherds from house contexts so it would be clear what was being dated. This would allow temporal differences in house pairs and contemporaneous alignments to be discerned. It soon became apparent that occupation on most sites was far more complex. Many earlier house fragments became apparent, which meant a much longer series of occupations. On other sites, distinct loci that dated to different periods were apparent.



Whetstone Plain sherd that dates to the 13th century or before.

O'odham presence? First and foremost it is the foundation of a new research question.

Interestingly, at this early end of Sobaípurí presence in southern Arizona we see Whetstone Plain, as well as other types of O'odham pottery. These early O'odham wares, confirmed by regional ceramicists, have been found on a number of sites along the San Pedro and Santa Cruz rivers and consistently date at least as early as the 1400s. Many early sites on both rivers also have plainware types that are not Whetstone or early O'odham wares, just as late sites have historic organic-tempered wares along with protohistoric Whetstone Plain. The question that has not yet been answered is whether these new types represent trade with groups to the south (or elsewhere), influences from people they intermixed with, or retainment by the Sobaípurí of certain ceramic styles from their place of origin that soon disappeared from the inventory as the Sobaípurí slate of pottery narrowed as they settled into southern Arizona. One new type, a polished plainware, was dated to the mid 1600s. Another two types repeatedly seen on early sites on both rivers have been dated to the 1400s. As with other new pottery types, it

The task was becoming very complicated (and expensive), requiring many more dating samples. Moreover, it became evident that samples obtained were often from the latest-occupied houses because these were the clearest features, most exposed, and sherds were visible in them. I wanted to be able to date one household group in one alignment and compare it to that in another. In seeking clarity in this regard, another equally important goal was thwarted. Because I was selecting the clearest contexts where site structure could be dated, I was selecting against the earliest occupations on these sites! Dating samples selected from some of these sites that might date to earlier occupations have yet to be analyzed. The few that have come in date solidly in the A.D. 1200s and even potentially before (1150 ± 80 [1070-1230] UW2522; 1220 ± 80 [1140-1300] UW2627)! The Whetstone Plain sherd shown in the figure on the left dates this early. Is this an outlier and error, or is it a hint of the early end of



Example of new type of historic pottery that dates to AD 1600s.

is unknown if these early dated types are Sobaípurí or whether they were obtained through trade with other groups. Clearly, additional studies are needed including instrumental neutron activation analysis (INAA) and petrographic analyses.

One of the challenges on these sites is determining whether the clearly prehistoric pottery found in Sobaípurí loci are: (a) old vessels collected by the Sobaípurí and used in later contexts, (b) residual prehistoric pot breaks with overlying Sobaípurí components, or (c) vessels traded to the Sobaípurí, contemporaneous with the Sobaípurí occupation but made by remnant Hohokam, Salado, or Trincheras peoples. Salado polychromes, Trincheras wares, and Hohokam red-on-brown sherds are often found at Sobaípurí sites, even in cases where there is no clear prehistoric component. Luminescence dates on these types of occurrences would go far toward addressing these questions.

As I have noted elsewhere, some of the plain-surfaced pottery found in Sobaípurí contexts and with Sobaípurí attributes seems to have actually been painted with red, black, and perhaps white pigments that have since eroded. Faint ghosts on matte-surface sherds raise the possibility that many more of these were once painted, slipped, or stained. Additional studies are clearly needed in this regard as well. As additional analyses are conducted on this faint and fugitive paint, the stylistic attributes of these design elements may provide insights into origins and interfaces and will clarify if these vestiges of red and black paint are similar to the Salado polychromes of the late prehistoric period.



*Whetstone Plain pottery
that dates to the AD 1400s.*

IMPLICATIONS FOR SOBAÍPURÍ ARCHAEOLOGY

We are now at the point where we can seriously assess the issue of the Hohokam-O'odham continuum, that is, whether the prehistoric Hohokam and other related cultures were directly ancestral to the protohistoric O'odham peoples who occupied southern Arizona during protohistoric times. Previous researchers who have attempted to address the connection between prehistoric and historic populations have been hindered by a lack of data from the terminal prehistoric and protohistoric periods. Past researchers interested in this issue, including both Emil Haury and Charles Di Peso, recognized the need to obtain data from this "dark age"—a period without evidence. Only now are we beginning to obtain these data. With new dating techniques that were not available to Haury, Di Peso, and other earlier researchers, we can document the early presence of O'odham in southern Arizona. The chronometric dates noted above from Sobaípurí-O'odham sites on both the San Pedro and Santa Cruz rivers allow us to reexamine this issue.

In the 1400s (and likely earlier), after the reorganization and decimation of prehistoric populations noted in O'odham traditional stories, some Sobaípurí sites show hints that perhaps remnant Hohokam, Salado, or Trincheras populations were co-residing with the Sobaípurí. This of course implies that the Sobaípurí were newcomers and that they incorporated these other people into their own. This is consistent with some traditional accounts that have the O'odham migrating in, taking out the local leaders with their magic, and leveling buildings in battle. Other accounts indicate that after the wars the compliant

commoners were allowed to stay, ultimately becoming O’odham. The only hints that small populations of these remnant prehistoric populations were present are rectilinear structures and their artifacts scattered throughout southeastern Arizona. Some Sobaípuri sites seem to show evidence of these structures along with Sobaípuri ones, which just might be the archaeological manifestation of the events chronicled in traditional accounts. On the other hand these might be just Sobaípuri council houses. Only future research will tell.

Many larger sites, though, appear to be even earlier (but still in the terminal prehistoric-protohistoric period), and related to a Western Pueblo occupation. These sites show evidence of widespread burning, suggesting catastrophic occurrences, consistent with traditional accounts of walls crumbling before O’odham forces. Several have been identified and these need to be dated to determine if these violent events occurred in the 1200s, 1300s, or 1400s. Much work remains to be done but we are closer than ever to being able to address these issues. We have specific sites identified that can be investigated and easily dated.

Traditional O’odham stories vary about this period because it was so long ago and because different groups residing in different areas probably experienced this transition in different ways. Along the Gila River, the intruders may have used their magic against the resident populations or their leaders, while in other areas O’odham groups may have interacted amiably with the remnant population, even accepting the noncombatants into their society.

As I have noted elsewhere, the transformation of groups in the late historic period, from many mobile groups to just the Apache and O’odham in Arizona, may be a useful model for conceptualizing the nature of interface between Sobaípuri, who may have been thirteenth- or fourteenth-century newcomers, and the remnant Hohokam populations. While many aspects of the Hohokam–Sobaípuri continuum question remain unclear, it is likely that the Sobaípuri incorporated some of the local host population into their own, and therefore are descendant. After all, it is the cultural aspects of descent that are relevant from an archaeological perspective of continuity, as it is from an indigenous O’odham standpoint as well. The Sobaípuri brought with them a distinct but desert-adapted way of life that shares attributes with other residential lifeways of the Sonoran Desert, including those of the Hohokam, Salado, and Trincheras cultures. It is presumed that since the O’odham persisted they incorporated prehistoric members into their society, rather than the other way around, and, accordingly, the remnant host populations became O’odham, adopting and altering the O’odham way of life.



Austin Nuñez (left), Chairman of the San Xavier District, Tohono O’odham Nation, visits a San Pedro Valley Sobaípuri site with archaeologist Dr. Deni Seymour.

About the Author

Deni J. Seymour received her Ph.D. in Anthropology from the University of Arizona. She is currently a research associate at two universities and at the Jornada Research Institute. She has been studying the archaeology of the protohistoric and historic Sobaípuri-O’odham, Apache, and others for more than a quarter-century. Many of her publications can be found at www.Sobaipuri.com and <http://independent.academia.edu/DeniSeymour>.

Recommended Reading

Seymour, Deni J.

- 2009 Father Kino's 'Neat Little House and Church' at Guevavi. *Journal of the Southwest* 51(2):285–316.
- 2010 Archaeological Insights into the 1698 Victory of the Sobaípurí O'odham over the Enemies of the Sonoran Province. *Old Pueblo Archaeology Center Bulletin* Number 64.
- 2010 Contextual Incongruities, Statistical Outliers, and Anomalies: Targeting Inconspicuous Occupational Events. *American Antiquity* 75(1):158–176.
- 2011 *Where the Earth and Sky are Sewn Together: Sobaípurí-O'odham Contexts of Contact and Colonialism*. University of Utah Press, Salt Lake City.
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Old Pueblo Archaeology Center's "Archaeology Opportunities" Membership and Discounts Program

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Membership benefits include a one-year subscription to the **Old Pueblo Archaeology** bulletin, opportunities to participate in Old Pueblo's member-assisted field research programs, discounts on publications and archaeology-related items, and invitations and discounts for field trips and other archaeology events.



Plan Ahead to Take in Some Future Archaeology Activities!

July 24, 2013 **Library Presenters**

“What is an Archaeologist?” free children’s presentation at Pima County Public Library’s Woods Memorial Branch, 3455 N. First Ave., Tucson

August 10, 2013 **“Arts and Culture of Ancient Southern Arizona Hohokam Indians” free presentation by archaeologist Allen Dart** for Pima County Natural Resources Parks and Recreation at Brandi Fenton Memorial Park, 3482 E. River Road, Tucson*

August 15, 2013 **“Archaeology and You: Preserving the Past for the Future” free presentation by archaeologist Allen Dart** for Homolovi Chapter, Arizona Archaeological Society, at Winslow Chamber of Commerce, Winslow, Arizona*

September 19, 2013 **“Third Thursday Food for Thought” dinner & presentation, “Along the California Trail” with Dr. Jay Craváth** at Coco’s Bakery Restaurant, 7250 N. Oracle Rd., Tucson

September 22, 2013 **“Autumnal Equinox Tour of Los Morteros and Picture Rocks Petroglyphs Archaeological Sites” with archaeologist Allen Dart** departing from near Silverbell Road & Linda Vista Blvd. in Marana, Arizona

NEW MEXICO: September 26-30, 2013

“Chaco Canyon, Aztec, and Salmon Great Pueblos and Other Archaeological Sites” educational tour with archaeologist Ronald H. Towner

October 2, 2013 **“Archaeology and Cultures of Arizona” free presentation by archaeologist Allen Dart** for the Pueblo Grande Museum Auxiliary meeting at Pueblo Grande Museum, 4619 E. Washington St., Phoenix*

Fridays October 4, 11, 18 & 25, & November 1, 2013 **“Archaeology, Cultures, and Ancient Arts of Southern Arizona” 5-session class with archaeologist Allen Dart** for OLLI-UA Green Valley members, Green Valley, Arizona

October 9, 2013 **“Arts and Culture of Ancient Southern Arizona Hohokam Indians” free presentation by archaeologist Allen Dart** for Friends of SaddleBrooke Libraries in SaddleBrooke, Arizona*

October 10-13, 2013 **“Canyon de Chelly Archaeology and Cultures,” Old Pueblo Archaeology Center educational tour with archaeologist Ronald H. Towner,** meets in Chinle, Arizona

Sundays October 13-November 24, 2013

Traditional Pottery Making Level 1 Workshop with Andy Ward at Old Pueblo Archaeology Center, 2201 W. 44th Street, Tucson

October 17, 2013 **“Third Thursday Food for Thought” dinner & presentation, “Carbon 14 Dating, from the Earliest Dog to the World’s Most Mysterious Manuscript” with Professor Greg Hodgins,** at El Parador Tropical Garden Restaurant, Tucson

October 24, 2013 **“Southwestern Rock Calendars and Ancient Time Pieces” free presentation by archaeologist Allen Dart** for Verde Valley Chapter, Arizona Archaeological Society, Sedona*

November 9, 2013 **“Southwestern Rock Calendars and Ancient Time Pieces” free presentation by archaeologist Allen Dart** at Pima County Public Library’s Southwest Branch, Tucson

November 13, 2013 **Library Presenters “Arts and Culture of Ancient Southern Arizona Hohokam Indians” free presentation by archaeologist Allen Dart** at Pima County Public Library’s Valencia Branch, Tucson

November 21, 2013 **Library Presenters “Archaeology and Cultures of Arizona” free presentation by archaeologist Allen Dart** at Pima County Public Library’s Salazar-Ajo Branch, 33 Plaza, Ajo, Arizona

November 21, 2013 **“Third Thursday Food for Thought” dinner & presentation, “Archaeological Resource Crime” with Bureau of Indian Affairs Regional Archaeologist Garry J. Cantley** at a Tucson restaurant to be announced

November 30, 2013 **“Rock Art and Archaeology of Ventana Cave” Old Pueblo Archaeology Center carpooling educational tour with archaeologist Allen Dart** departing from Tucson

December 7, 2013 **Library Presenters “Archaeology and Cultures of Arizona” free presentation by archaeologist Allen Dart** at Pima County Public Library’s Joyner-Green Valley Branch, Green Valley, Arizona

December 19, 2013 **“Third Thursday Food for Thought” dinner & presentation, “An Archaeological Record of the Sears Point Petroglyph Complex” with Evelyn F. Billo** at Dragon’s View Asian Cuisine Restaurant, Tucson



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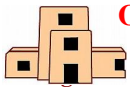
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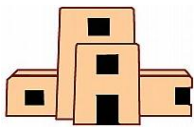
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