

# ARCHAEOLOGY IN TUCSON

Vol. 8, No. 4

Newsletter of the Center for Desert Archaeology

January 1994

## The Gibbon Springs Site: A Hohokam Village in the Foothills

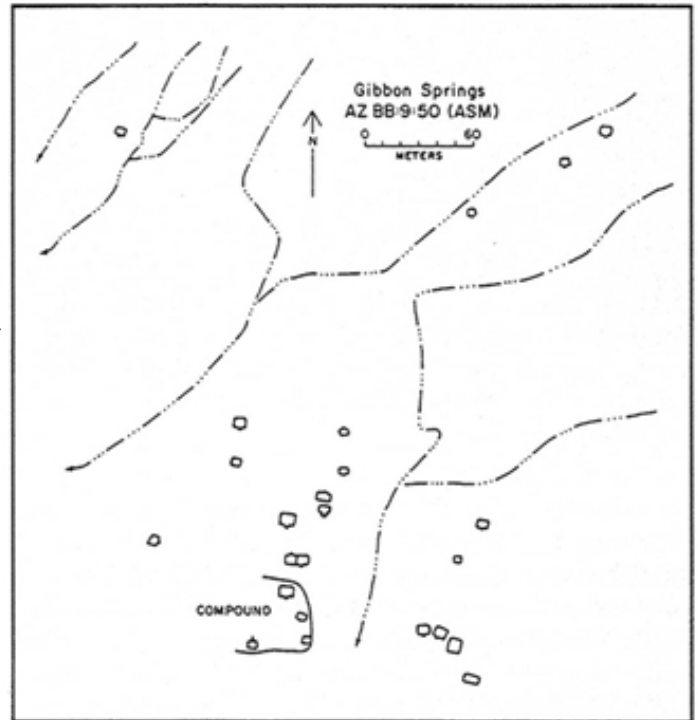
By Mark C. Slaughter, SWCA, Inc., Environmental Consultants

The Gibbon Springs site, located in the northeastern portion of the Tucson Basin, is a Tanque Verde phase hamlet settled in the mid-1200s. As part of a federal permit application, recent excavation of this site was undertaken by archaeologists from SWCA, Inc., Environmental Consultants, and by efforts of many volunteers. The principal funding for the project was provided by Perini Land and Development Company.

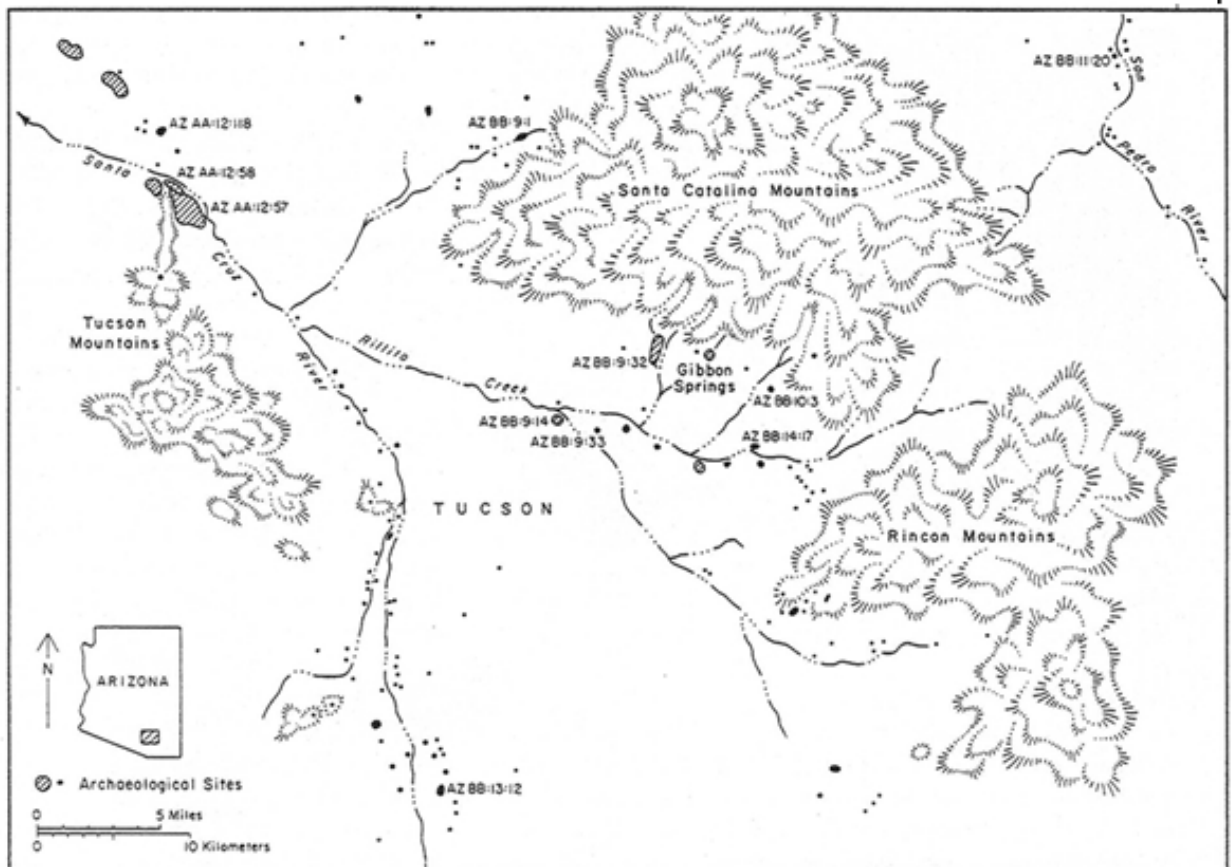
Perennial springs are believed to have drawn prehistoric agriculturalists to Gibbon Springs. They provided water, wild plant resources, and quality soils for raising crops. Once established, the inhabitants prospered but then suddenly left. They abandoned their homes and unwanted materials that were later claimed by twentieth-century pothunters for their aesthetic and monetary values. Although the site was vandalized, we were still able to recover data from more than 200 features. All of these remains were associated with the Tanque Verde phase of the Classic Period.

### A HOHOKAM SITE WITH TREERING DATES

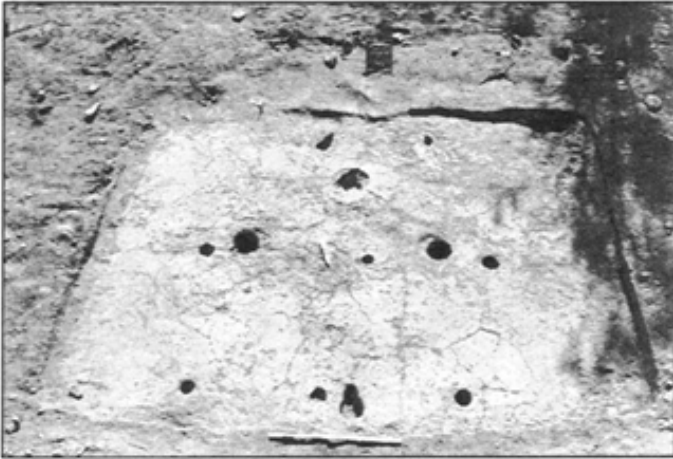
Because sites in southern Arizona seldom contain construction materials that can be tree-ring-dated, most Hohokam sites are dated from carbon samples, the archaeomagnetic sampling of hearths, or through ceramic design and vessel style. Unfortunately, none of these methods provide the tight chronological control that is possible with tree-ring



Excavated structures and their relationship to the compound.



Location of the Gibbon Springs site and other Classic Period sites.



*Well-plastered floors allow archaeologists to reconstruct the pattern of roof-support beams. This example is from inside the compound.*

dates. At the Gibbon Springs site, we were fortunate to recover several datable species of pinyon and ponderosa pine. Although their research is ongoing, the Tree-Ring Lab of the University of Arizona has determined that one sample has a cutting date of A.D. 1249.

#### **ARRANGEMENT OF THE HAMLET**

The Gibbon Springs site is arranged around a central compound and can be divided into five spatially distinct precincts ranging from habitation areas to agricultural fields. Four structures are within the compound, which appears to have been the focus of communal activities. Two of the structures were used for habitation and one for storage. The fourth structure was the largest at the site, contained two hearths, and may have had a bench around its interior. These, and other data, suggest that it was a meeting place or was associated with other unknown communal activities.

Several house clusters outside the compound likely represent cooperating household groups. Unfortunately, we do not know what features may have been present to the south of the compound. Construction of modern homes has destroyed this portion of the site.

No differences in social status were found at the site, suggesting that no one person or group controlled access to goods or their distribution. Exotics such as shell, turquoise, decorated ceramics, and obsidian were found away from the compound as frequently as within it. The major distinction between the compound and noncompound areas is in the amount of stored materials. As indicated by the vessels and macrobotanical remains recovered, large quantities of maize and beans were kept in the compound. Therefore, the one storage structure there was probably for communal use.

#### **HOHOKAM MENU ITEMS**

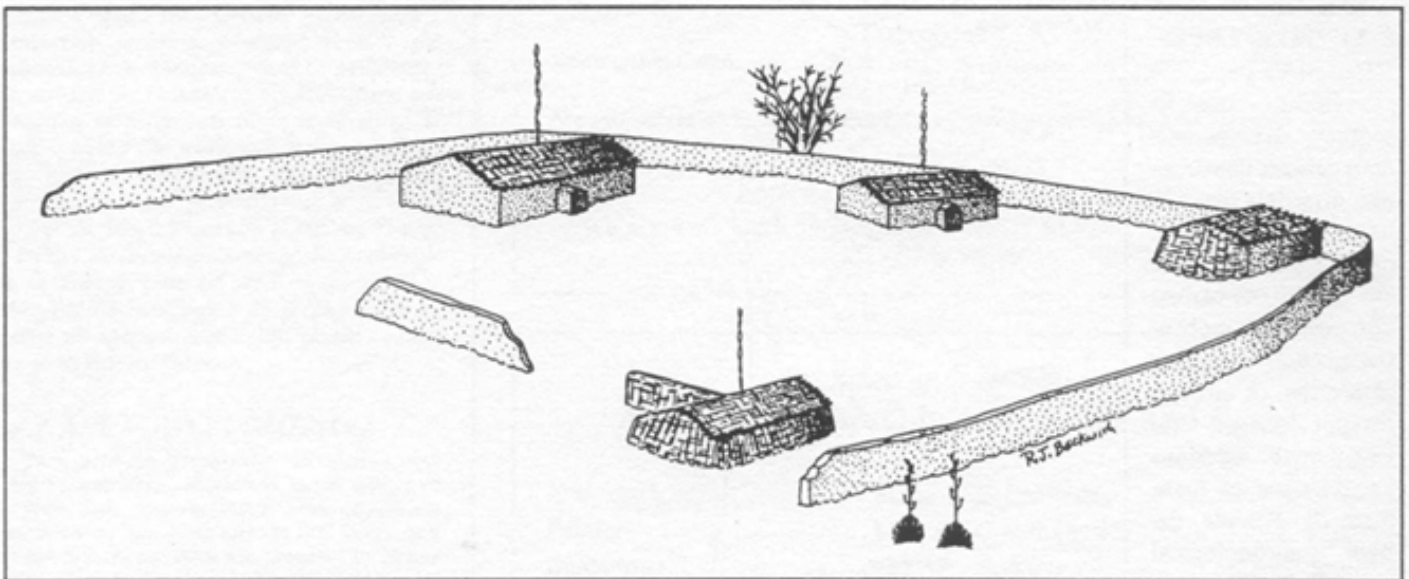
Botanical materials recovered from the compound indicate that many plant remains were stored in seed and processed form. Thousands of tansy mustard seeds clumped together in a ball, corn meal, and hundreds of charred beans were recovered.

Agricultural fields at the site contained numerous checkdams and rockpile features. A canal that originated near the springs and fed into a series of man-made checkdams and terraces was also found.

Faunal remains, including deer, pronghorn antelope, and bighorn sheep, were well preserved and common to the whole site. The faunal data, combined with the high projectile-point count, suggest that the residents of the Gibbon Springs site hunted more frequently than other Hohokam.

#### **INTERACTIONS WITH PEOPLES OF THE SAN PEDRO VALLEY**

Because few Tucson Basin Classic period sites have been adequately excavated or reported, interactions between Gibbon



*Artist's rendering of how the compound might have looked.*

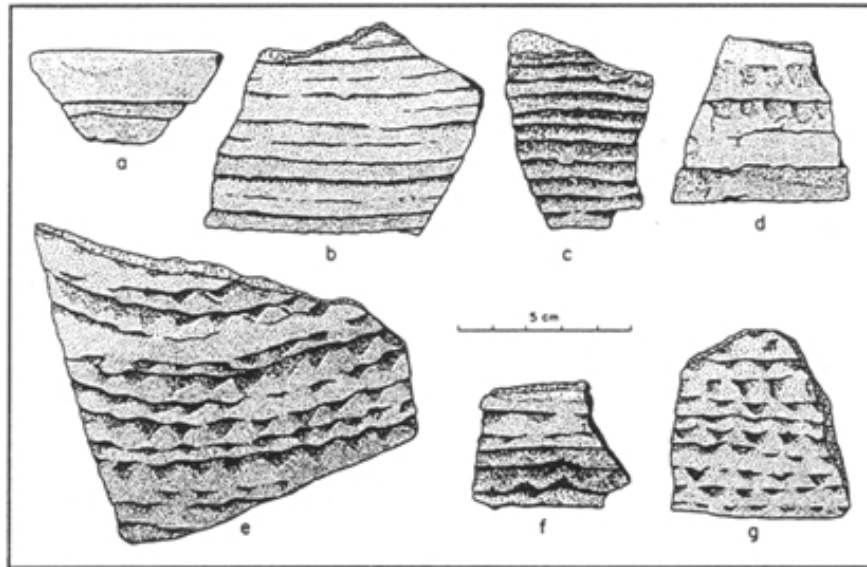
Springs inhabitants and other prehistoric communities are difficult to understand. The Classic period is characterized by population movements, shifts in exchange and interaction networks, and changes in social systems. The materials recovered from the Gibbon Springs site reflect these changes.

In the northeastern Tucson Basin, several Classic period sites contain very high numbers of corrugated ceramics in comparison to most Tucson Basin Hohokam sites. These include Gibbon Springs, Whiptail Ruin, and Sabino/Bear Canyon Ruin. Corrugated wares make up 15 percent of the ceramic assemblage from Gibbon Springs. This ceramic type is commonly associated with populations located east of the Tucson Basin and occurs infrequently in most areas of the Tucson Basin. Therefore, corrugated wares have traditionally been assumed to represent trade wares produced outside this area. The sherds from Gibbon Springs, however, contain sand temper identical to the sands located at the site and were almost certainly produced by its residents.

Local production of these wares may represent the movement of potters into the Tucson Basin from other areas. Whether they were an entire population group or only a few potters is unclear. Gibbon Springs is within five miles of a natural corridor, Redington Pass, that would have allowed easy foot travel between the San Pedro River Valley and the Tucson Basin. Exchange and interaction between the populations of the two zones would have been a natural occurrence. Intermarriage or other social contacts may have led to the movement of people into the Tucson Basin.

Tanque Verde Red-on-brown ceramics also appear to have been produced at the Gibbon Springs site. Researchers from Desert Archaeology were subcontracted to study the temper used in the ceramics. They found that approximately three-quarters of the sherds submitted for petrographic analysis contained temper identical to the sands from the Gibbon Springs site. Interestingly, these same sherds could be distinguished from the non-local Tanque Verde Red-on-brown sherds by their design. The locally produced sherds tended to be "sloppier" in their design execution than those produced elsewhere in the Basin. This difference may reflect attempts by inexperienced potters to produce this ceramic type.

Regardless of the specific ethnicity of the potters, the inhabitants of Gibbon Springs clearly interacted with persons residing both to the east and the west. Almost 20 percent of the



*Corrugated sherds from Gibbon Springs.*

Tanque Verde Red-on-brown sherds selected for temper analysis contained sands from the northern Tucson Mountains, near Huntington Ruin. These data indicate that the people of Gibbon Springs maintained ties with residents of the western Tucson Basin. However, the nature and scope of this interaction is unknown.

### **WHY WAS GIBBON SPRINGS ABANDONED?**

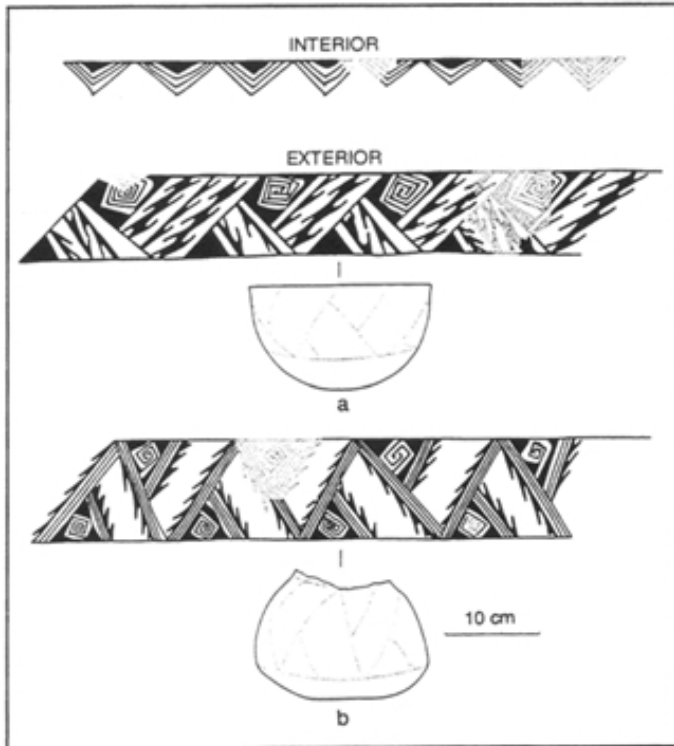
The lack of Late Classic period diagnostics, such as Gila Polychrome or Tucson Polychrome, and an absence of superimposed features indicate that the Gibbon Springs site was abandoned prior to the early 1300s. Since the area provided cultivated and wild food resources in abundance, why did its inhabitants leave?

Analysis of the data from Gibbon Springs indicates there were distinct abandonment patterns, which were common to



*An unusual vestibule entry (right center), cut through by a backhoe trench, is not typical of most Tucson-area structures. Pits, postholes, and a well-plastered hearth are visible inside.*

every structure. The fires that consumed these structures were smoldering blazes rather than quick, hot-burning flames. Although rich floor assemblages were recovered from many of the houses, some materials that would have been present in a complete floor assemblage seemed to be missing. Artifacts left behind raise questions. For example, one feature contained several whole shells, and another feature had



*Tanque Verde Red-on-brown bowl and jar, showing the most common design layouts and motifs found at Gibbon Springs.*

over 35 reconstructible storage jars with food materials left in some of them. The reason these materials were left is not readily apparent.

No environmental factors are associated with the desertion of the prehistoric hamlet. Droughts or floods would likely have had less of an impact on the residents of Gibbon Springs than on other villagers. The springs probably flowed yearround, even in dry years, and would therefore have offset the effect of any drought. Furthermore, because the site is located at higher elevations than riverine sites, droughts would have been less pronounced than in the lower elevations. Conversely, the high elevation and the well-drained soils indicate that floods would not have harmed the Gibbon Springs agricultural fields.

The entire hamlet appears to have been abandoned at once. Since there are no environmental explanations, one or more social causes may have contributed to the abandonment. The threat of attack, population growth, availability of land, and the outbreak of disease are all possible factors. Unfortunately, none of these options can be accepted until more is known about this period and data from other sites is gathered.

What became of the site's inhabitants? Migrations are difficult to identify in the prehistoric record, and tracing the movement of these people is no exception. The abandonment of the Gibbon Springs site may have been related to changing settlement patterns and social systems of the later Classic period. If so, these people may have left their hamlet to join others in one of the large, aggregated villages, such as the nearby University Indian Ruin, that later became dominant.

## New Survey Opportunities

Last spring, the second phase of the Lower San Pedro survey was completed. There is now an inventory of most of the accessible lands between Redington and Benson. The goal is to publish the final report on both survey phases by next spring.

But what are people to do with their weekends now that the weather is cooling off? Please, keep in shape and try to be patient because a new survey opportunity is being planned for a January kickoff. The Center is talking with Pima County and the Bureau of Land Management, and we are planning a survey of their lands along Cienega Creek. Cienega Creek is on the southeast margin of the Tucson Basin, and a diversity of historic and prehistoric sites are already known from this area. Even more are waiting to be found and documented.

If you would like to participate, please call and leave your name, address, and phone number with Irina at 881-2244. In December, we'll send out a letter with more information on the survey, as well the spring survey schedule.

THE CENTER FOR DESERT ARCHAEOLOGY ANNOUNCES PUBLICATION OF *Tucson at the Turn of the Century: The Archaeology of a City Block*. Written for archaeologists and history buffs alike, the book uses old photos and documents to recreate urban life 100 years ago. Analyses of household debris identify patterns of consumption and material culture related to ethnic identities and economic classes. Copies are \$13.50 (10% discount) for AIT members.