

Goat Camp Ruin Interpretive Development Project

PROGRESS REPORT

Season 4 Operations from 10/10/2015 through 9/1/2016
Arizona State Museum Permit 2012-107ps 7/17/2012

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Prepared by

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September 1, 2016

Fieldwork

Over the course of the last year the project was able to make considerable progress toward implementing the goals established in the Excavation and Stabilization Plan (Wood 2012) with continued excavation work in Rooms F6 and F7 and the initiation of work in Rooms F22 and 31 (Fig. 1). More progress was also made toward understanding the site's architecture and construction techniques, particularly in Room F6 (Wood 2015), which will help considerably in planning future stabilization. As always, this work was performed by volunteer members of the Arizona Archaeological Society (primarily the Rim Country, Desert Foothills, and Santan Chapters) under professional supervision provided by myself, Connie Darby, Ron Ryden, and Denise Ryan.

Feature 1a

Excavation of this feature continued down to the sterile substrate and was then backfilled. The cultural deposit identified last year appears to have been nothing more than a trash-filled excavation next to the wall. Given its irregular nature, it may have originally functioned as a borrow pit for the construction of Room F1. Fill in the pit contained some charcoal and a possible reconstructable vessel, though it appears that the pot was broken and bundled with other household trash before being dumped into the pit. No further excavation work is planned for this feature.

Room F6

After the exciting discovery of a probable Apache re-occupation of the room last year (Wood 2015), excavation efforts in Room F6 this year were confined to furthering our understanding of its construction. We excavated the entry, which turned out to be heavily disturbed by burrowing animals; pretty much the entire south half was all but destroyed. On the north side of the east-facing entry, however, we did discover that the inside of the loosely built masonry wall had been framed up with a pine post and juniper lintel, both of which had only partially burned with the rest of the room. The post was placed at the edge of the room against the wall, jammed against the floor (no posthole). We assume that the same arrangement was in place on the other side of the doorway, but it had been burrowed out and only a few scattered pieces of charcoal remained in the fill on the south side. Given the fact that there was no posthole, the structure had the look of a later repair.

The south wall of the room also turned out to have been repaired. The original slab facing that characterized the entire structure had been replaced along a several meter long stretch of the wall, which was rebuilt in ashlar, using some broken pieces of the original slabs in addition to other stone. It appears that the original wall had collapsed outward into the soft fill it was facing. The repaired wall still has a bit of an outward cant to it.

A short trench was cut through the back wall of the room, from the slab facing to the outer granite boulder buttress wall in order to further explore the wall construction. Based on the findings of this

excavation along with the nature of the floor surface across the room, we determined that the northern third of the house had been dug through cultural fill and into the original substrate of the ridge, using that surface as the basis for the floor. The rest of it was dug into deeper cultural fill, perhaps midden from the Preclassic occupation of this part of the ridge and never reached the substrate. After the original collapse of the south wall, it appears that the fill outside was dug out around much of the structure and replaced by packed cobbles and mortar to shore it up and harden it between the slab wall and the outer boulder buttress wall. This outer wall – here and at rooms F1 and F15 also – was a later addition to compensate for what turned out to be relatively unstable original construction. Interestingly, while the room walls are generally built with Tapeats sandstone slabs and blocks brought from the edge of nearby Houston Mesa, the later buttress walls are almost exclusively made up of granite boulders available on site.

Excavation of the wall trench also revealed that the cultural fill under the floor of Room F6 is still a bit deeper. After removing the cobble-mortar mix, the base of the trench revealed a curved edge of the substrate on the north side with fill on the south. Probing with a chaining pin showed that the soft cultural fill continues down another 20 cm or more. This suggests at least the possibility that Room F6 was built partially over the filled in remains of an earlier pithouse.

In all, our examination of the wall construction strategy and quality in this room indicates that it may have been the first attempt by the occupants of Goat Camp Ruin to build a masonry room, which they appear to have attempted without the aid of any plan or experience in doing so.

Room F7

The SE and NW quarters of this room (Fig. 1) were excavated to the upper of the two floors identified in the test unit excavated there several years ago in the SE corner. We found a nice intact hearth oddly placed in the middle of the fairly well-finished packed fill floor. On that floor, covering nearly all the space in both quarters, was a dense layer of broken pots. As many as 10 large plainware storage vessels may be reconstructable, smashed in place as the roof collapsed when the structure burned. Judging from the size, thickness, and curvature of many of the recovered sherds, several of these pots may have been very large ollas about a meter in both height and diameter. There appear to be a number of smaller bowls and jars as well.

In the NW quarter, the floor was hardened with a structure not unlike the Salado granary platforms common in Tonto Basin, only about twice the normal size. It was round, paved with two layers of slabs and packed with clay mortar. It did not have the same density of pottery on it that the rest of the floor did, suggesting a different use, perhaps as a place to store things in baskets. At the north end of the NW quarter we encountered a burned section of floor and a large quantity of carbonized beans scattered among the smashed pots and burned roof beams. Based on their size and shape the beans appear to be white teparies like those still grown by some O'odham farmers. Despite the presence of the hearth, Room F7, at least in its second life on the upper floor, ended up as a dedicated storeroom.

Room F7 proved interesting in another way as well. The upper fill above the pottery layer contained more lithic material, including debitage and thinning flakes (rare elsewhere on the site except for the upper fill of Room F6), than any of the other rooms on the site. The closest comparison is with Room F6, suggesting that both 6 and 7 may have hosted a later Apache occupation, though no related hearth or use surface has yet been found in the upper fill of Room F7 as it was in Room 6.

Needless to say, Room F7 took up most of our time during the fourth season.

Room F22

This room, adjacent to Room F6 and similar in size and shape (Fig. 1), was opened up with a test trench along the west side of the wall in the NW quarter, which was taken down to a fairly good floor with the remains of several burned roof beams lying on it. Subsequently, excavation of the N half of the room was begun but remains to be completed.

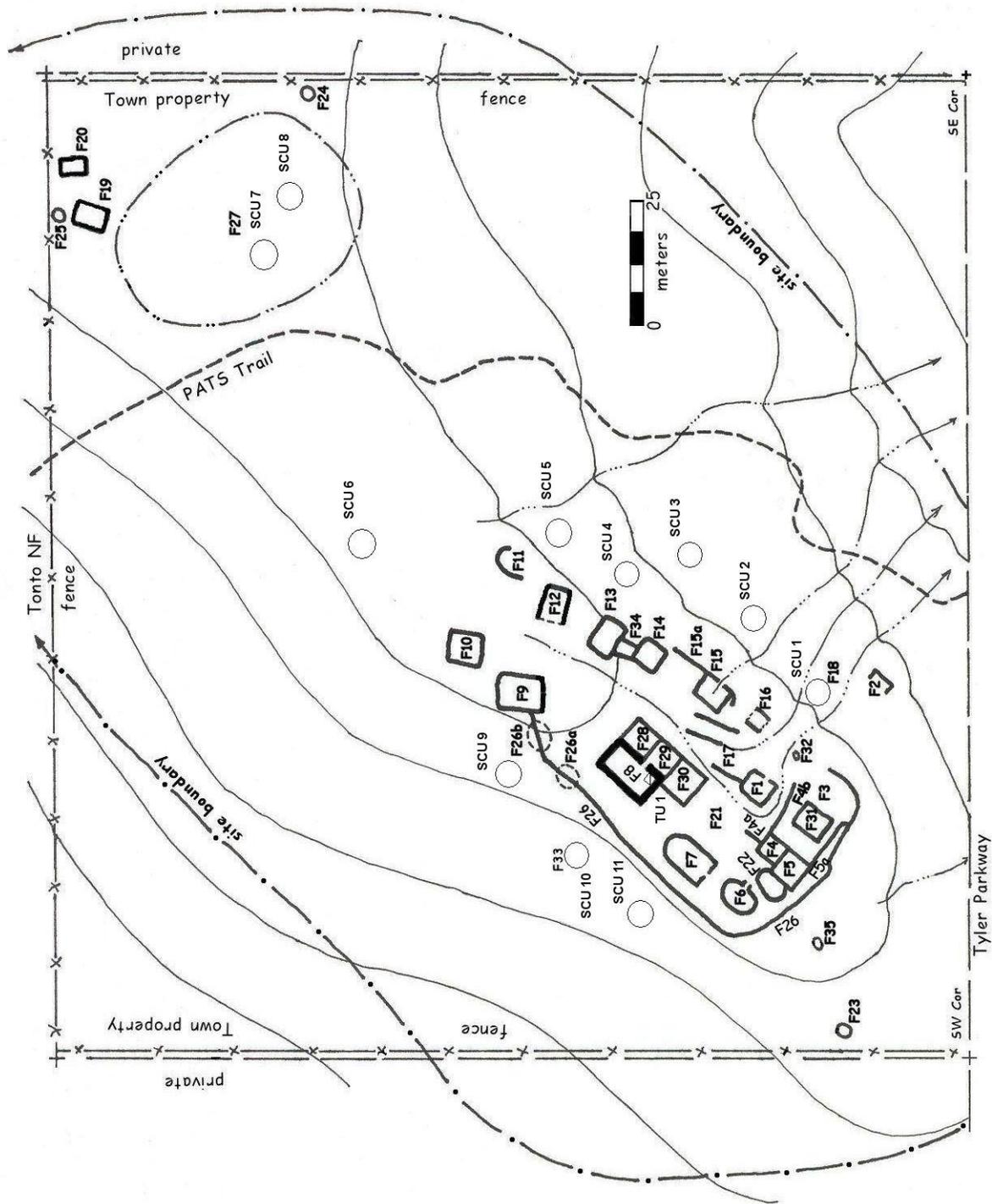


Fig. 1. Showing the layout of architectural features and surface collection units identified at Goat Camp Ruin (AZ O:11:72 ASM). Excavations is Season 4 were carried out in rooms F6, F7, F22, and F31.

Room F31

This room, more on the east side of the site (Fig. 1) was also opened up with a test unit in its NW quarter. This small excavation revealed crudely built walls and a very rough, root and rodent disturbed excuse for a floor, worse even than the floor in Room F1. Once depth was established, the SE quarter was excavated to the floor, which continued to be very rough, heavily disturbed, and poorly defined. Although no charred beams were encountered, the fill was littered with small bits of charcoal and broken up pieces of burnt daub, several of which had good wood and brush impressions, indicating that it, too, had burned, like most of the rooms excavated so far (see below). The masonry wall was roughly constructed with inconsistent selection of stones and was apparently quite low, only one to three courses through most of what has been excavated, except for a fallen five course section in the SW corner that still needs to be explained. Given this and the general distribution of burnt daub throughout much of the fill, Room F31 may turn out to be one of the few jacal rooms built at Goat Camp. Alternatively, the suggestion of a once higher wall in one corner may indicate that this structure was robbed for stone after it burned down.

A second quarter was begun in this room but has yet to be completed.

Features 36-39

These features, reported last year (Wood 2015) were scheduled for definition and mapping in Season 4 but due to the time needed to address the massive pottery deposits in Room F7, that work was postponed.

Drone Mapping and 3D Modelling

On July 29 of 2016 Ben Hammer and Chris North of Paleowest Archaeology came up to Goat Camp with a pair of photography drones and conducted an aerial documentation of the site. The outcome of this work, provided at no charge, will be a photo and GPS based map of the site along with 3D modeling of several rooms based on terrestrial photogrammetry. The computer processing and generation of these products should be completed about the time we are to return to the field.

Artifact Processing and Analysis

Much of the summer of 2016 was devoted to lab work. All of the artifacts from the excavations done in Season 4 were washed and re-bagged. Rough sort analysis based on the Checklist of Pottery Types for the Tonto National Forest (Wood 1987) was completed on all of the recovered ceramics. In addition, preliminary analysis was completed on all of the lithics, ground stone, and other artifact types recovered to date. Preliminary outlines for more complete analyses are included as Appendix 1.

Ceramics

Total recovery of ceramics to date now comes to 18,446 sherds: 13,889 of these are plainware (75.3%), 4322 are redware (23.5%), and the remaining 235 sherds (1.3%) are decorated and/or imported, including imported Gila Plain, Gila variety pottery from the Salt-Gila Basin. The ratios remain about the same as they were last year (Wood 2015). The bulk of the plain and red pottery appears to be local (Tonto Plain, Tonto Red), though several varieties from the Sierra Anchas, Tonto Basin, and other relatively nearby central Arizona sources were recognized during the rough sort. As many as 15 whole or partially reconstructable vessels have been identified from Rooms F1 and F7, all of which appear to be plainware.

Similar to the numbers previously reported, over half of the imported/decorated pottery was comprised of buffwares from Hohokam sources in the Salt-Gila Basin, beginning with Snaketown R/b and continuing through Gila Butte R/b, Santa Cruz R/b, and Sacaton R/b. Other decorated wares that occurred in much smaller quantities and percentages were Tusayan Whiteware, Cibola Whiteware, and

Little Colorado Whiteware, in that order. Dating from these ceramic types indicate that the site was first occupied sometime between AD 600 and AD 750, given the consistent recovery of late forms of Snaketown R/b and early forms of Gila Butte R/b and the very Vahki-like appearance of much of the Gila Plain, and continued to be continuously occupied until sometime between AD 1250 and AD 1300 – most likely about AD 1280, when the whole of the Payson area was abandoned.

The consistent presence of later forms of Snaketown R/b and early forms of Gila Butte R/b suggest that Goat Camp began as either a Hohokam colony or a trading outpost in Early Ceramic Central Arizona Tradition territory. In any case, the persistence of Hohokam pottery indicates that whoever the original inhabitants of the site were, they became well integrated into the Hohokam system quickly enough.

Lithics (general)

Last year we estimated that the total number of lithics recovered from the site was less than 10% of the total number of sherds (Wood 2015). That may have been true until we analyzed the material from Rooms F6 and F7.

A preliminary sorting of the lithics, including projectile points and whole or fragmentary mescal knives identified a total of 5,026 flaked stone artifacts – 27.2% of the number of sherds. Of these, only a handful can be considered formal tools – projectile points, drills, and mescal knives – with very little in the way even of noticeably utilized or retouched flakes. Further analysis will hopefully enlighten this assessment, but at the moment, the Goat Camp lithic industry appears to have been expedient in the extreme with only one or two tool types being produced by specialists.

Preliminary identification of materials reinforces that assessment as it demonstrates an overwhelming preference for locally obtained stone, particularly the chalcedonies abundantly represented in the so-called Rim Gravels with a secondary preference for nearby chert sources. There was also a surprisingly high use of the local siliceous limestones associated with the Rim Gravels and available on site as nodules in the ridge substrate. Indeed, nearly all of the lithic material identified, with a few exceptions, can be found within a radius of only a few miles of the site and much of it closer than that. Not that there weren't a few exotics. There are small amounts of Hardscrabble Dacite (15 miles away), one point and a couple of nodules (Apache tears) of Superior obsidian, and a few flakes of what appears to be Government Mountain obsidian, and some quartzite and metamorphics, but not a lot of other variety in the lithic general population. In terms of source material, only 28 cores were recovered: 13 of chalcedony, 6 of chert, 5 of metamorphics, and 4 of limestone.

Mescal Knives

Thirty-three whole and fragmentary tabular mescal knives were recovered from both surface and room fill contexts, which included every room but F31 (so far). Eighteen were rhyolite, 14 were schist, and one was, rather improbably, limestone. Most of the rhyolite is a visual match to the Perry Mesa source rhyolite used for mescal knives all over the middle and lower Verde watershed – metallic gray interior, pinkish cortex, and occasional small phenocrysts. There is, however, a roughly similar source on Hardscrabble Mesa not far from the black dacite quarries, about 16 miles away. Closer comparison work is needed to make any final determination. The schist, on the other hand – micaceous, black, and relatively coarse – doesn't conform to any source known as yet to any of us, though we will attempt to identify it. In any case, other than the lone limestone example, all the mescal knives recovered from Goat Camp were all made of imported material.

Projectile Points

The collection of points recovered to date is rather eclectic. Out of a total of 52 examples, only 12 were too fragmentary to characterize. Of the remaining 40 more-or-less intact points, 60% are triangular, primarily with a flat or concave base, half with side notches, half without. Most are small and conform to patterns common in both Preclassic and Classic Period Hohokam and Salado contexts throughout

most of central Arizona. However, several of these styles continued in use well into historic times and are known to have been made by a wide variety of people throughout the Southwest, making most of them more or less non-diagnostic.

The next largest class are Preclassic Hohokam narrow-stemmed points, one of which was serrated. These made up more than a quarter of the recovered points. Finally, there are a few corner-notched and expanding stem points that suggest an Archaic origin.

Most of the points and fragments (84.6%) are made of local silicates, primarily chalcedony (26) and chert (18). The chalcedonies are all available within a few miles of the site. Some of the cherts, however, resemble materials from somewhat more distant sources under the Mogollon Rim to the east and include several varieties not well represented in the general population of lithics from the site. Five points were made of Hardscrabble Dacite, one of fine-grained basalt, and two were of obsidian. One of the obsidian points was clearly Superior; the other was made of an opaque black obsidian, almost a pitchstone, the source for which is so far unknown. If it does turn out to be pitchstone, it may have come from the Strawberry Mountain area near Hardscrabble Mesa.

Most of the points (61.5%) came from just two rooms – F6 and F7. In addition, over 80% of all the points and point fragments recovered so far came from surface or near surface contexts; less than 20% came from floors or deep room fill. These findings, combined with the high lithic density in the upper fill of Rooms F6 and F7 supports an interpretation of a later, probably Apache reoccupation of those two rooms. The eclectic nature of the points, many of which are strictly prehistoric styles, is not surprising, scavenged points of any and all time periods being a common aspect of Apache sites. Many of the small side-notched point from Rooms F6 and F7 may have been manufactured there by Apaches (hence the higher density of debitage and thinning flakes in those two rooms), but any or all of them could also have simply been gleaned from the trash deposits of Goat Camp Ruin itself.

As far as point use by the prehistoric inhabitants goes, Goat Camp stands in stark contrast to many other sites in the Payson area that contain sometimes hundreds of points. Given the dearth of points found so far from floors and deep room fill, it would appear that they made or acquired only as many points as were necessary to add some venison to their diet. We have found only two shaft abraders and one antler wrench (see below), and there really hasn't been all that much food bone recovered so far compared to many sites in the Payson area. While they did hunt, the folks at Goat Camp appear to have been much more devoted to farming, at least based on what we have recovered so far.

Drills

Further support for the Apache reoccupation of Rooms F6 and F7 comes from the presence of 5 chert drills from the uppermost fill of both rooms, of a type that would have been useful for cutting holes in buckskin. That may be sheer speculation, but no such artifacts have been found so far anywhere else on or in the site.

Quartz Crystals

A dozen quartz crystals have also been recovered from the site, visually identified as having come from the nearby (6 miles) Diamond Point crystal field. The bulk of these (42%) came from the upper fill of Room F6, the deposits we have identified as representing the Apache reoccupation. Quartz crystals are known to be important to certain Apache traditional practitioners and are commonly found on Apache sites in the Payson area.

Ground Stone

Twenty-one partial metates and fragments have been recovered to date, some from each excavated room. Even the upper floor of the storeroom, F7, had a metate, though it was shattered by the heat of the fire that claimed the structure. Unfortunately, none of them were whole. There are two oval basin fragments (Apache?); the rest are all from trough metates. The dominant material is very local –

Tapeats sandstone with one example of local pink granite. These materials could literally have been picked up outside their doorsteps. There are, however, some fragments of hard, black vesicular basalt similar to that commonly used in Preclassic Hohokam sites to the south. These were found in Rooms 6, 22, and 31 and scattered on the surface of the site.

In addition to the metate fragments, 96 other pieces of ground stone have been recovered to date. Almost 60% of those are whole or partial manos. The 6 whole manos are “two-hand” loaf shapes, relatively thin and well-worn for the most part. Aside from a couple of “one-hand” oval pebble manos, the rest are fragments of “two-hand” loaf manos. There are also two “floor polisher” style grooved round manos, one of which was found in situ on the upper floor of Room F7 crusted with red ochre on the grinding face.

Other types of ground stone recovered include 18 assorted hammerstones, 6 polishing stones, two grooved abraders, one whole $\frac{3}{4}$ -groove diorite ax that had been converted to a maul, fragments of two other diorite axes, a fragment of carved slate palette (surface find), an intact flat-ground slate plummet or pendant, a ground blank for an argillite pendant or figurine, and a few other odds and ends that were not clearly assignable to any particular category.

The ground stone assemblage is rather interesting. As noted above, the metates are few and are overwhelmingly local in origin, made from materials on or adjacent to the site, the only imported material being a few black vesicular basalt fragments. The manos, on the other hand, are both more plentiful and more expensive, as 86% of them are made of non-local material. The largest portion of these (38.6%) are of vesicular basalt. This was not the same black vesicular basalt seen in the metate fragments, but an iron gray variety that compares visually with the basalts on and near Buckhead Mesa, about 9 miles to the northwest of Goat Camp. The non-vesicular basalt manos and fragments (21%) are of a coarse, granular basalt similar in composition to the Buckhead Mesa basalt and probably came from the same area. Thus, nearly 60% of the manos appear to have come from some distance away. All of the basalt manos and fragments evidence good workmanship in material selection and manufacture. This is in strong contrast to the metates, which, except for the black basalt fragments, are all immediately local in origin and rather poorly made.

As for the hard, black vesicular basalt, it does not occur anywhere in the Payson area. Since none of it was found in situ like the granite and Tapeats, we assume that it ended up in the rooms as part of the earlier occupation trash that fills them. This suggests that they belong to the earlier, Preclassic occupation and, like the decorated pottery, reflect a time when Goat Camp was more affluent or at least more connected to long distance trade.

Shell

Thirty-two items of shell representing four species have been recovered to date. Most of it is *Glycimeris* (53.1%), consisting of 4 bracelet fragments, 2 ring fragments, 8 pendants or beads (small entire shells with drilled umbos), and 3 other fragments. Ten whole or fragmentary *Conus* tinklers (including one whole shell with the apex ground off to make a hole) and 4 *Olivella* beads make up the bulk of the rest of the collection. The one outlier is a 3cm long pendant of abalone shell found in Room F6 cut into a traditional Hohokam lizard/anthropomorph shape.

The “bulk” of the shell collection came from post-occupational trash fill in Room F15, deposited after it had been abandoned in antiquity (probably due to the structural failure of its back wall) and turned into a community trash dump. The rest came from the upper floor of Room F7 and from floor and fill contexts in Rooms F1 and F6.

Beads, Pendants, and Carvings

Relatively few artifacts in this category have been recovered, nearly half of which were found on the surface. These include one small polished round shell bead, one polished squarish turquoise bead, two cut and polished round steatite beads (a dark green one from the Campbell Creek source south of Q

Ranch, and a light green one from Haigler Creek), and a large bead the size and shape of a fossil crinoid stem segment but apparently carved out of some as yet unidentified stone. There are also small cut and polished pendants of turquoise and *Glycimeris* shell, a small turquoise tessara, and a small fragment of what appears to have been an effigy tobacco pipe from carved out of argillite.

Bone, Antler, and Basketry/Fiber Industries

Very few examples of these technologies have been recovered from Goat Camp. They include one definite bone awl (tip), a few fragments of polished long bone that may also be awl or coarse needle fragments, and a single ceramic spindle whorl found on the floor of Room F1. The two antler artifacts recovered are interesting. One appears to have been a shaft wrench, made from a split antler with three holes of different sizes drilled through it – 7mm, 6.4mm, and 5mm. Shafts of these diameters would have worked with the recorded neck widths of many of the points recovered. The other antler tool is a chisel or gouge, also made from a split antler, which could have been used for light woodworking or, more likely, defleshing hide and bone.

With the exception of the antler wrench, found on the floor of Room F1, the rest of the bone and antler tools were all found in the upper fill of Rooms F6 and F7 alongside with all of the stone drills and most of the projectile points, suggesting that they, too, are probably associated with the Apache reoccupation rather than the original prehistoric occupation. Perhaps the original population of Goat Camp bought all their clothing and baskets retail and simply ate all the agave they harvested...

Chronological, Environmental, and Other Samples

Luckily for us, all but one of the rooms investigated so far burned; charcoal and burnt daub samples have been recovered from every room but F15. Even the small test unit in Room F8 came down on a burned beam resting on the floor. As a result, we have 27 datable samples of charcoal, including carbonized beans from Rooms F7 and F31. So far we have secured \$1000 for processing and are looking into obtaining three initial AMS dates from International Chemical Analysis, Inc. (ICA) in Florida and finding enough funding to ensure that we have at least one (preferably two or three) radiocarbon date from every room.

Room F1 burned while occupied with pots and other artifacts both inside on the floor and on the roof. Fewer artifacts were found in situ in Room F6, so it may have been cleaned out prior (or during) the fire. Room F7 definitely also burned while in use, charring many of the pots and their stored contents (the beans), shattering the Tapeats metate, and burning a large patch of the floor. Indeed, Room F7 burned twice with evidence from both floors. Rooms F8, F22, and F31 also contain burned beams and/or lots of charcoal and daub, but their excavation is not yet completed. Generally, though, the impression is that the whole site may have been burned and abandoned, though it isn't yet possible to even suggest if this was due to attack or ritual behavior.

Visual inspection of the charred wood found on the site has identified a mix of pine and juniper as the source species preferred for construction. Today the site is covered with pinyon and juniper, but would not likely have been during most of its prehistoric occupation as several centuries of agricultural clearing, cooking, heating, and firing pottery would have stripped the site area of wood for several miles in any direction. Nevertheless, both pine (and pinyon) and juniper would have remained available nearby, especially as stringers along the drainages.

In addition to the radiocarbon samples, we have also collected 23 pollen and 30 float samples so far from various locations and depths. Funding or a skilled volunteer needs to be procured for their analysis.

Faunal material has been relatively abundant across the site, resulting in the collection of 85 samples. This material generally falls into two categories: dead burrowing rodents we disturbed from their final resting places and cooked (burnt and fragmented) artiodactyl long bones and ribs. And an occasional bunny. These latter samples suggest a good mixed diet of hunted meat and farm produce. To date,

however, the only farmed produce we have any direct evidence for (at least until the floats and pollen samples have been processed) is the collection of carbonized tepary beans from Rooms F7 and F31, though we may also be able to infer the use of cooked agave (knives, roasting pits) and corn (trough metates).

Time and Value

To date, a total of 4619 hours have been contributed by the volunteer staff and crew, not counting travel for those who are not full time Payson residents. At a conservative in-kind valuation of \$20 per hour of volunteer labor, the Arizona Archaeological Society has contributed the equivalent of \$92,380 to the project on behalf of the Town of Payson over the last four years.

Some Preliminary Conclusions

The work of Season 4 has basically reinforced the conclusions reached after Season 3 (Wood 2015), which are repeated below, with a few minor adjustments. So far the largest surprises of Season 4 have been the use of Room F7 as a dedicated storeroom and the extent to which the Apache reoccupation may have affected the artifact assemblage of the Rooms F6 and F7 and the site as a whole.

Based on the architecture and ceramics we have observed so far, Goat Camp Ruin now appears to have been founded well before 750 AD by Hohokam colonists from the Salt-Gila Basin – or by local Central Arizona Tradition folk with very strong economic and cultural ties to early Hohokam settlements in Tonto Basin. This is slightly earlier than we suggested last year, for reasons discussed above. We still haven't seen any of the Preclassic architecture – though we may have caught a glimpse in the wall trenching of Room F6 – but the surface masonry houses and the use of a Salado-style storage platform in Room F7 remain consistent with such an interpretation. The ceramics still clearly indicate that the major outside influence or trade partner for Goat Camp was Hohokam, the next closest being the folks making Tusayan Whiteware. However, looking at all of the ceramics, lithic, ground stone, and other artifacts recovered to date, there appears to have been a clear drop off in trade with anyone after about 1150 or so. It appears that the folks living at Goat Camp were most connected when they were part of the Hohokam system during the Preclassic Period.

The original hypothesis for the development of the village put its origins in the upper part of the site, the area identified as F27, after which that area was abandoned in favor of the point of the ridge, where the Classic Period architecture is now concentrated. The F27 area contained a high percentage of buffwares and early plainwares and whitewares with virtually no redwares in the dense surface trash, and no visible surface architecture. In the Payson area, this is usually a pretty conclusive signature for a Preclassic pithouse settlement.

However, the distribution of early buffwares across the site, including their consistent presence in the fill of the later structures excavated so far, suggests otherwise. This, combined with the identification of black/gray organic midden deposits showing up continuously in recent rills and anthills all across the site from F27 all the way down to F6, suggests that at one time, the entire ridge top was occupied. It further suggests that the occupation may actually have begun at the point of the ridge and expanded to the northeast to F27, especially since the earliest buffwares on the site (as well as the latest and all others in between) have so far been found on the south end. If this is the case, towards the end of the Preclassic the Goat Camp settlement extended along the ridge for at least 200 meters, covering approximately 5,000 square meters, making it the largest currently known Preclassic settlement in the Payson area.

The Classic Period portion of the settlement, then, may represent something of a retraction back to the core and a loss of population – or possibly just a compaction of the previously spread out pithouse settlement into a higher density unit on that portion of the ridge having the best defensive advantage.

Obviously, much remains to be discovered and some of these questions will be difficult if not impossible to answer without expanding the excavation area beyond what was proposed in the Plan.

Nevertheless, just from what has surfaced to date it is possible to characterize the Goat Camp Ruin site as a very stable settlement location that was occupied continuously from the time of the first Hohokam colonial expansion into central Arizona to the final prehistoric abandonment of the Payson highlands. More work (still) needs to be done....

Outline of Work Proposed For Season 5

Excavation Work: First Priority

- Room F6 Excavation work here is essentially complete, but we may continue to look at its construction by clearing additional portions of the walls to confirm the original ground surface, especially between Room F6 and Room F22. We may also put a test unit through the floor adjacent to the wall trench. This should allow us to better characterize the nature and depth of the underlying fill and confirm or dismiss the idea of an underlying pit structure.
- Room F7 Excavate the NE and SW quarters down to the upper floor. Follow out the burned area in the adjacent portion of the NW quarter. Particular attention will be paid to identifying further evidence for post-abandonment reoccupation and characterizing the nature of the storage area and how it was used. Once that is completed, excavate the SE quarter down to the original floor, put another test unit on the outside of the south wall of the upper floor to determine how the south wall of the original structure was configured.
- Room F15 Buttress the back wall with a ramp of rock and backfill the room. Relocate the remaining backdirt and rock piles.
- Room F22 Continue excavation of the north half down to the floor and follow up with construction studies of the walls to locate its entrance and determine its relationship to Room F6..
- Room F31 Complete excavation of the SE quarter to floor, clear walls to locate and define the entry.
- Rooms F8, F28, F29, F30 Do more extensive wall clearing to better define units for excavation.
- Once we complete these tasks, we will be ready to tackle Rooms 8, 29, and 30, starting either in the Spring or Fall of 2017. Stabilization and backfilling of excavated rooms should also begin in 2017.

Excavation Work: Second Priority/Carryover to Next Season

- Feature 2 Clear brush and duff to expose walls, map, excavate 1m x 1m test unit (?).
- Features 4-5 Clear brush and duff to expose walls, map, excavate 1m x 1m test units (?).
- Feature 17 Clear and define retaining (?) walls, map.
- Feature 24 Excavate half of this roasting pit.
- Feature 32 Relocate and excavate F. 32, the slab-lined cyst, and perhaps see how it relates to the original ground surface in front of Room 1. To do this, we will need to move one of the backdirt piles from the room excavation.
- Features 36-39 Clear brush and duff to expose walls, map and add to master site map.

Lab Work

During the upcoming 5th season, we will continue to process new artifact collections and expand our analysis of the pottery, lithics, ground stone, shell, and other material recovered to date. This effort will likely continue during the summer of 2017 after the close of the spring field session. We will also

initiate radiocarbon analyses with the funding we currently have available and seek to acquire additional funds for more radiocarbon and the processing of the float and pollen samples.

Other Work

Prepare a long term stabilization plan for all excavated rooms and features that we can begin implementing next season. Preliminary planning with Jim Britton as our lead on stabilization began during Season 4 but remains to be committed to writing.

Survey/recording of contemporary and earlier sites in the Goat Camp area not already covered by FLEX or ADOT excavations. This will include compiling survey and excavation data from Risser Ruin for comparisons. Realistically, this will probably not be undertaken until the excavation phase of the project is completed.

References

Wood, J. Scott

- 1987 Checklist of Pottery Types for the Tonto National Forest. *The Arizona Archaeologist* 21. Phoenix, Arizona
- 2012 *Excavation and Stabilization Plan for Goat Camp Ruin, Payson, Gila County, Arizona*. Rim Country Chapter, Arizona Archaeological Society, For the Town of Payson Parks, Recreation, and Tourism Department, Tonto National Forest Cultural Resources Report 2008-12-58a
- 2015 Goat Camp Ruin Interpretive Development Project Progress Report, Season 3 Operations from 10/11/2014 through 9/7/2015, Arizona State Museum Permit 2012-107ps 7/17/2012

Appendix 1
Preliminary Outlines and Data Sheets for Artifact Analyses

Ceramics

Lithics

Projectile Points

Ground Stone

Shell, Bone, and Antler

GCR Ceramic Analysis Plan – 2nd Phase

Decorated

Confirm rough sort analysis, attempt identification to type/var if not previously done

Plain and Redwares

Types to sort for:	<u>primary characteristics for sorters to look for</u>
Gila Plain/Gila variety	micaceous (muscovite) schist
Gila plain/Salt variety	fine-grained arkosic sand, free muscovite
Tonto Plain and Red	
Verde var.	arkosic sand, with or without biotite mica, fine to coarse
Tonto var.	same as Verde, with addition of pyroxenes
Payson var.	same as Verde but no mica, little quartz
Pine var.	crushed sandstone/quartz sand, no mica
Buckhead var.	quartz sand with hornblende, basalt, and/or feldspar

Vosberg Plain, Red, and Corrugated

Typical	coarse crushed/decomposed diabase (feldspar and pyroxene)
Colcord var.	diabase with arkosic sand and/or sandstone
Canyon Cr. Var.	crumbled gray or green steatite

Flying V Plain and Red same as Vosberg typical but fine grained

Apache Plain thin, dark, striated surface

Rimrock Plain fingernail impressions

Other types and varieties as identified in sorting (e.g. Wingfields, Alamedas)

Additional characteristics to record: smudging, bowl/jar forms, sherd thickness, dimensions of RVs

Sampling

All surface collection material to be sorted and analyzed.

All figurines, cup handles, other ceramic artifacts to be analyzed.

Room contents: floor and roof fall levels, possible RVs to be analyzed; upper levels to be left at rough sort level, at least initially, except Room 6 and any subsequent room with indication of later occupation.

Other features/sub-features: all contents to be analyzed.

All decorated ceramics and RVs to be photographed for illustration; select samples of representative plains and reds may also be photographed.

GOAT CAMP RUIN CERAMIC CHECKLIST

PLAINWARE

Tonto Plain Verde Variety
Tonto Variety
Payson Variety
Buckhead Variety
Other Variety
Gila Plain Salt Variety
Gila Variety
Queen Creek Var.
Other Variety

Vosberg/Flying V Plain

Wingfield Plain

Apache Plain

Rimrock Plain

Other Plainware

REDWARE

Tonto Red Verde Variety
Tonto Variety
Payson Variety
Buckhead Variety
Other Variety
Gila Red Salt Variety
Gila Variety
Queen Creek Var.
Other Variety

Vosberg/Flying V Red

Wingfield Red

Other Redware

CORRUGATED

Tonto Corrugated

Vosberg Corrugated

Salado Red

McDonald Corrugated

Heber/Linden Corrugated

Sinagua Corrugated

Other Corrugated

BUFFWARE

Snaketown R/b or buff
Gila Butte R/b or buff
Santa Cruz R/b or buff

Sacaton R/b or buff

San Carlos R/b

Other Buffware

TUSAYAN WHITE AND GRAY WARES

Lino Gray or B/g

Kana'a B/w

Black Mesa B/w

Sosi B/w

Flagstaff B/w

Tusayan B/w

Other B/w

Unid. Tusayan WW

Tusayan Corrugated

LITTLE COLORADO WW

Holbrook B/w

Walnut B/w

Padre B/w

Unid. Little Colo. WW

CIBOLA WW

Red Mesa B/w

Kiatuthlanna B/w

Snowflake B/w

Reserve/Tularosa B/w

Pinedale B/w

Other/Unid. Cibola WW

SAN JUAN AND TSEGI REDWARE AND ORANGEWARE

Deadman's B/r

Medicine B/r

Tsegi B/o of Polychrome

WHITE MOUNTAIN REDWARE

St. John's B/r or Polychrome

Pinedale B/r or Polychrome

Other/Unid. WMR

HOPI SERIES

Winslow Orange or B/o or Poly.

Jeddito/Awatobi B/y

Jeddito Plain/Corrugated

TEMPER VARIETIES FOR PLAIN, RED, CORRUGATED:

<i>Verde</i>	Quartz & feldspar sand, variable biotite (gold or coppery) mica
<i>Tonto</i>	Verde plus black hornblende/ pyroxene, variable biotite
<i>Payson</i>	Crushed granite w/no black hornblende and variable biotite
<i>Buckhead</i>	Fine basalt, feldspar
<i>Pine</i>	Crushed sandstone
<i>Salt</i>	Quartz & feldspar sand, variable muscovite (silver) mica
<i>Gila</i>	Micaceous schist

COMMON IMPORT WARES ON THE TONTO NATIONAL FOREST

Tusayan Whiteware

Neutral grey to white paste, often with carbon streaking, Rounded quartz sand temper (coarse in early types, fine in later). Polished and/or slipped white on painted surfaces (with a tendency to a blue-grey tint), but not always on unpainted surfaces. Paint is carbon based black which tends to bleed into the slip or surface. *Key characteristics: rounded quartz sand temper, light paste color*

Little Colorado Whiteware

Dull battleship grey paste tempered with crushed rock, sherd, etc. Painted surfaces slipped and polished, unpainted surfaces only roughly finished, but often with a thin white wash seen only as streaky remnants. Paint is usually a mixture of iron and carbon based pigments with some bleeding into the slip. *Key characteristics: battleship grey paste, streaky slip on unpainted surfaces*

Cibola Whiteware

Grey to white paste, tempered with anything available (including rounded quartz sand). Painted surfaces generally slipped, unpainted usually left fairly rough. Slipped surfaces may be polished. Paint is generally iron based and tends to be a bit brownish. Later paints included manganese blacks (purple-black) and copper salt glaze black. *Key characteristics: mineral paint, painted rims, isn't Tusayan or Little Colorado*

White Mountain Redware

Variable paste ranging from light buff to dark grey, variable temper. All surfaces (except inside jars) have thick reddish orange slip that is highly polished. Paints are usually mineral based - iron, manganese, and copper glaze. *Key characteristics: thick polished slip, characteristic color*

Jeddito Yellow Ware

Painted stuff is almost free of temper (very, very fine quartz sand - sometimes none visible at all). Paste and surfaces both fired to the same pale yellow to deep orange color. Surfaces unslipped but well polished. Plain and corrugated versions rough-surfaced with coarse rounded quartz sand temper.

Paint is generally iron based and tends to be brown. *Key characteristics: it's yellow; you can't miss it*

GCR Lithic Analysis Plan

Artifact Categories

Non-formal tools

Cores	Shatter
Debitage	Non-utilized flakes
Utilized flakes	

Formal tools

Knives	Mescal knives
Scrapers	Drills
Gravers/burins	Projectile points
Other	

Characteristics for sorters to record

Presence/absence of cortex: primary (>50%), secondary (<50%), tertiary (no cortex)

Material type

Dimensions

Type/Style (points)

Dimensions for non-formal tools will be by class of max. dimension:

<1cm.; 1cm. - 2cm.; 2cm. - 4cm.; >4cm.

Projectile points and select cores, other formal tools, and representative materials to be photographed

Typical material types in the Payson/subRim area:

Preacher Canyon Chert (chalcedony)

Whit(ish) chert

Mottled Gray & white chert

Banded gray & white chert

Misc. chert (local)

Misc. chalcedony (local)

Hardscrabble dacite

Basalt

Greenstone/felsite

Obsidian (Gov't Mtn/Superior/other)

Quartz crystal

Tabular rhyolite

Tabular schist

Other materials as identified

Note: some of these have specific names, but most of the cherts and chalcedonies are part of the highly Mogollon Rim Gravels and are not easily visually differentiated in most cases.

Sampling

All surface collection material to be sorted and analyzed.

All points and formal tools to be analyzed.

Room contents: floor and roof fall levels only to be analyzed, at least initially, except Room 6 and any subsequent room with indication of later occupation.

Other features/sub-features: all contents to be analyzed.

Goat Camp Ruin Projectile Point Shape Classes (tentative)

BLADE SHAPE

Simple Triangular
Convex Triangular (ovate)
Concave Triangular (incurvate)
Triangular Serrated
Lanceolate/leaf-shaped (excurvate)

BASE SHAPE

Triangular - straight
Triangular - concave
Triangular - convex
Stemmed - Straight
Stemmed - Contracting
Stemmed - Expanding
Stemmed - Concave or Bifurcated
Corner Notched
Side Notched - Upper
Side Notched - Middle
Side Notched - Low
Side Notched - Low with basal notch
Side Notched - Multiple notches, with basal notch
Lanceolate/leaf-shaped (excurvate) - stemmed
Lanceolate/leaf-shaped (excurvate) - fluted
Other

GCR Characteristics and Measurements for Projectile Point Analysis

Material

Shape Classes (if not intact, describe remaining portion, e.g. triangular tip, stemmed base, etc.)

Point Length Overall

Blade Length (may be the same as point length; top of notch to tip if either is present)

Blade Width

Base Width

Neck Width (if applicable)

Notch Height (base to top of notch, if applicable)

Greatest Thickness

Condition - whole, fragment, etc.

GCR Ground Stone Analysis Plan

Artifact Categories

Characteristics for sorters to record

Metates	material, whole/frag, O.A. dimensions, grinding surface area/dimensions, fine/coarse
Trough	
Basin	
Slab	
Unid. Fragments	
Manos	material, whole/frag, O.A. dimensions, fine/coarse
Loaf - 1 hand	
Loaf - 2 hand	
Round, grooved	
Pebble	
Axes and Mauls	material, whole/frag, O.A. dimensions
$\frac{3}{4}$ groove	
Other	
Hammerstones	material, whole/frag, O.A. dimensions, amount of cortex
Core	
Pebble	
Other	
Grooved Stones	material, whole/frag, O.A. dimensions, groove dimensions
Shaft abraders	
Shaft polishers	
Other	
Abraders	material, whole/frag, O.A. dimensions
Palettes	material, whole/frag, O.A. dimensions, grinding surface area/dimensions
Pendants	material, whole/frag, O.A. dimensions
Beads	material, whole/frag, O.A. dimensions
Other	material, whole/frag, O.A. dimensions

All ground stone artifacts to be photographed for illustration.

Materials from the Payson vicinity

Granite	Argillite
Tapeats SS	Turquoise
Coconino SS	Steatite
Vesic. Basalt	Slate/schist
Non-vesic. Basalt	Other as identified
Greenstone/felsite	
Diorite	
Chert	
Dacite	

GCR Shell, Bone, and Antler Analysis Plan

Shell Artifact Categories

Characteristics for sorters to record

Material (species), whole/frag, O.A. dimensions

Bracelets/Armllets

Rings

Plaques

Pendants

Beads

Tinklers

Other

Materials (species) known from Payson area

Conus

Glycimeris

Laevicardium

Olivella

Other, as identified

Bone and Antler Artifact Categories

Characteristics for sorters to record

Material, species, whole/frag, O.A. dimensions

Awls and other pointy things

Wrenches

Plaques

Pendants

Figurines

Other

Materials

Bone

Antler

Species

It's all deer...

All bone, shell, and antler artifacts to be photographed for illustration.