

Goat Camp Ruin Interpretive Development Project

PROGRESS REPORT

Season 5 Operations from 9/24/16 through 9/1/2017
Arizona State Museum Permit 2012-107ps 7/17/2012

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Prepared by

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Excavation

Over the course of the last year the project continued to make progress toward implementing the goals established in the Excavation and Stabilization Plan (Wood 2012) with continued excavation work in Rooms 7, 22, and 31 (Fig. 1). Stabilization of the site was also begun with work in Room 1. 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, Deil Lundin, and Denise Ryan.

Room 7

The SW and NE 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, continuing the work undertaken in the room last year, when we found a dense layer of broken pots covering nearly all the space in both the NW and SE quarters (Wood 2016). This last season we completed the excavation of the entire upper floor, which confirmed our impression of the structure as a dedicated storeroom.

With the pottery recovered this season, there may have been as many as 15 to 20 potentially reconstructable large plainware storage vessels contained in the room and smashed in place as the roof collapsed when the structure burned. Judging from the size, thickness, and curvature of many of the recovered sherds, the pots excavated this year appear to be more of the same as were recovered last year, i.e. very large ollas, some of which may have been up to a meter in both height and diameter.

Last season, in the NW quarter, we encountered a structure not unlike the Salado granary platforms common in Tonto Basin, only about twice the normal size at approximately two meters diameter, half-round, butted up against the west wall of the room and paved with two layers of slabs packed tight 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. This last season, having removed the tree that had been growing through the middle of it, we spent some more time defining it. In the process, we discovered that one of the paving stones was a broken trough metate (that we left *in situ*). We also discovered a bit of burnt daub on the pedestal that had basketry or matting impressions, seemingly confirming our assessment of the pedestal as a separated, rodent-protected area within the storeroom to keep perishable material in baskets.

The NE quarter of the room also contained a considerable sample of the same carbonized white tepary beans found last year in the NW quarter, with the addition of a number of loose carbonized kernels of corn. Other interesting finds included a shattered metate associated with the pedestal and the remains of a necklace or bangle bracelet made up of strung *Glycimeris* shells all about 10 mm in diameter lying on the burned floor next to several broken pots in the NE quarter.

Room 7 also continued to produce more lithic material, including projectile points and large quantities of debitage and thinning flakes that any place else on the site, again, mostly confined to the upper fill above the pottery layer. This again seems to support our contention for a later Apache occupation such as was identified last year within Room 6.

Needless to say, Room 7 took up a lot of our time during the fourth season.

Room 22

This room, adjacent to Room 6 and similar in shape (Fig. 1), was opened up last year with a test trench along the west side of the wall in in the NW quarter, which was taken down to a fairly good floor with the remains of several burned roof beams lying on it. It was originally planned only to excavate the north half of the room, mostly to see how it articulated with Room 6. As it turned out, we excavated the entire interior of the room to the floor as a result of having found an unusual burial inside the room (see below).

Room 22 is one of the smallest rooms on the site, only three meters long and four meters wide, but it turned out to be well constructed with stable walls, unlike Room 6. Like Room 6, Room 22 was also excavated into accumulated cultural fill from the earlier Preclassic occupation of the ridge with the pit ending just as it got to the marly sterile substrate. The walls, however, were not slab faced as they were in Room 6 but rather were built up of well-sorted slabs of Tapeats sandstone stacked in a neat ashlar facing the edge of the pit. Like the other rooms we've excavated at Goat Camp Ruin, the lower portion of the walls was made up of the single row of masonry lining the pit with double row construction from the original ground surface up. The entryway into Room 22 turned out to be located in the center of the north short-axis wall. This is, of course, unusual for Hohokam/Salado/CAT architecture. However, the entry in Room 22 faces the entry in Room 7, which also had its entry in a short-axis wall, at least in the configuration it had while the upper floor was occupied. The reasoning behind this variation from architectural convention is yet to be understood, but it at least suggests that the two rooms may have been built or occupied contemporaneously.

Room 22 clearly burned and looks as if it had been deliberately razed. When it was first identified only the tops of a few wall stones showed on the surface; it looked more like plaza space between other rooms. However, when we opened it up, it became apparent where all the wall material had gone – it was all pushed over into the room and buried. Under the wall and roof fall a number of burned beams and large amounts of baked mortar and plaster clearly indicated that the room had also burned before it was buried, though I can't say whether the burning was accidental or deliberate yet, only that the fire appears to have started in or near the entryway (or at least burned hottest there at the primary oxygen source). The floor was well preserved as a black, ashy, hardened clay layer 1-3 mm. thick plastered onto the top of the marl substrate. Aside from the burial (see below), there was nothing on it; the room had been cleaned out. Even the hearth had been cleaned of its contents. The room appears to have been open for some time after this cleanout as there was a thin delta of very fine sand and silt washed into the northern third of the room from the entryway. After that, the burial appears to have been placed on the floor and the room burned. Room fill consisted of many intact burned beams and large chunks of charcoal mixed with masonry wall fall and roof material. The entryway was apparently framed in wood and plastered, like that in Room 6, collapsing in a heap of thick burnt daub. As noted above, all of the collapsed structural remnants, walls and roof alike, were contained within the original excavated pit. There was no wall fall outside of the pit, as if it had been deliberately demolished and the ground leveled over the top like it had never been there.

Because of the time required to properly expose and recover the human remains, Room 22 took an inordinate amount of time over the last season. Work still remaining includes completing the excavation of the entryway.

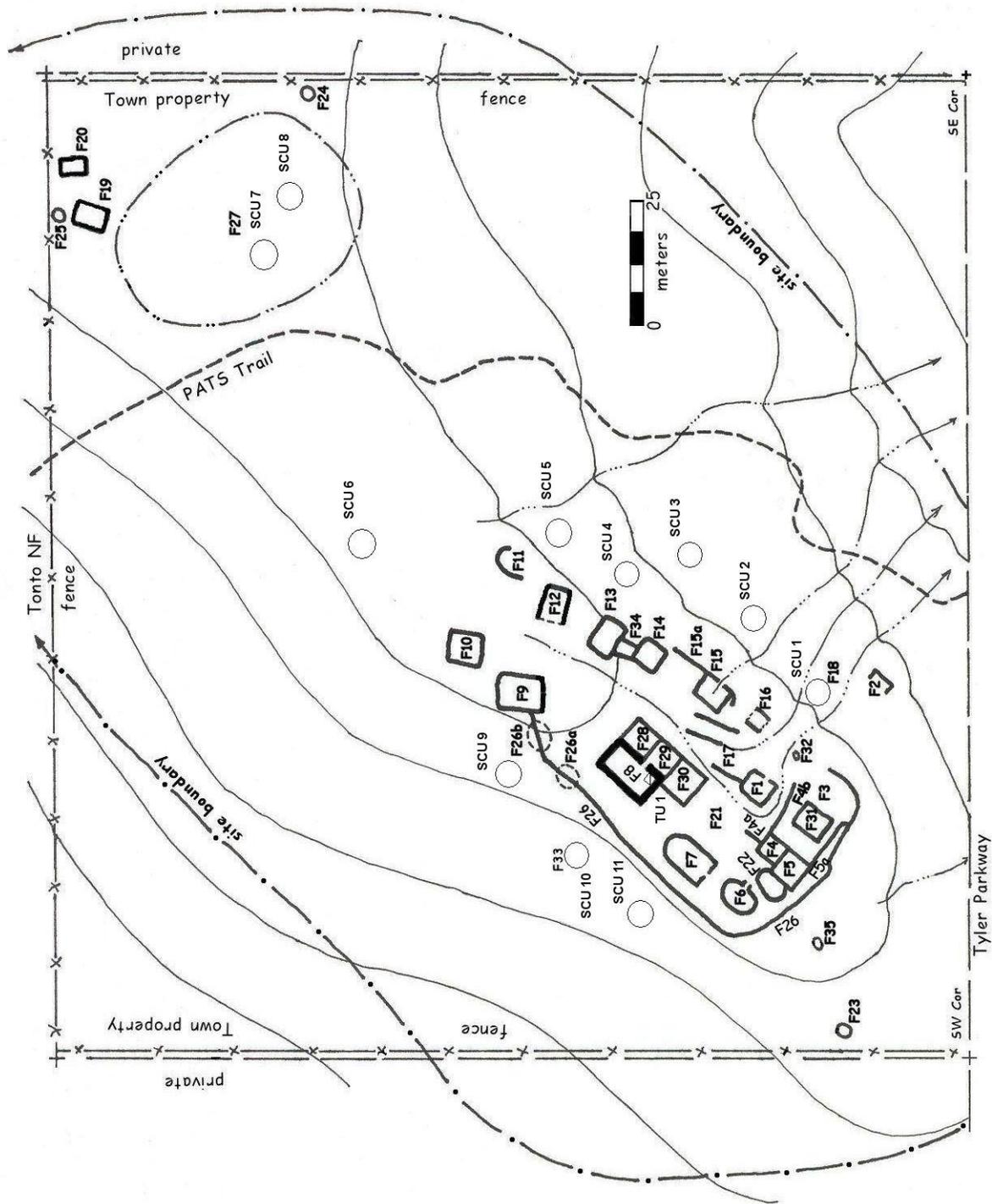


Fig. 1. Showing the layout of architectural features and surface collection units identified at Goat Camp Ruin (AZ O:11:72 ASM). Excavations in Season 4 were carried out in rooms F6, F7, F22, and F31.

Room 31

Excavation in Room 31 was limited due to the need to put more effort into Rooms 7 and 22. The second quarter begun last season was, however, completed to the rather shallow floor and the walls were better defined. Work on identifying and excavating the entryway through the west wall was just beginning at the end of the season. As before, the floor remained rough and irregular and the fill littered with small bits of charcoal and broken up pieces of burnt daub. A partial ceramic vessel, possibly a bowl or small jar, was found at the east wall associated with a small deposit of charred beans like those in Room 7. The wall definition work indicated that the room began as a “carport” with three masonry-founded jacal walls either open to the west or closed off with a simple jacal wall with its posts embedded directly in the ground without a masonry foundation, a common practice in the Payson area. At some later point, the west side was closed off with what appears to have been a full-height masonry wall. Somewhat curiously, this later wall was not built at the ends of the original carport walls but rather was butted in between them about half a meter inside, leaving two short stubs sticking out to the west. Work still remaining for Room 31 will include defining the entryway and attempting to confirm this impression of the construction sequence.

Features 36-39

These features, reported previously (Wood 2015) were scheduled for definition and mapping in Season 5 but due to the time needed to address the massive pottery deposits in Room 7 and the burial in Room 22, that work was postponed. Again.

Stabilization

Jim Britton prepared a preliminary stabilization plan (Appendix 1) for excavated rooms and features in October of 2016 that we began implementing during the Spring of 2017. The basic process specified in this plan will be applied to all excavated and partially backfilled rooms identified in the Goat Camp Ruin Master Plan for interpretive development.

Being one of the first rooms excavated for this project, Room 1 was selected to also be the first to receive stabilization, which was conducted by Britton with assistance from several regular members of the Goat Camp excavation crew. All four walls were repointed with treated mortar prepared on site using SoilShield-LS. As well, all exposed capstones on the wall were reset and sealed with the same material.

Burial Recovery

In October of 2016 we had an unexpected development in our excavations inside Room 22 in that we encountered some human remains in the room fill. They did not at first appear to represent a burial as they consisted of isolated fragments of cranium, long bones, and ribs that were encountered high in the fill mixed in with the building stones and melted mortar of the wall and roof fall and were scattered randomly both horizontally and vertically. No artifacts were directly associated with them; the wall/roof fall layer containing only random sherds and lithics derived from trash fill. Following consultation with the Salt River Pima-Maricopa Indian Community as per our Burial Agreement, we continued the excavation and opened up the south half of the room as well in an attempt to recover any additional remains for repatriation.

What we eventually found were the partially articulated remains of three individuals that had been laid out side by side on the floor of the south half of the room, along with more randomly scattered fragments of cranial bone, ribs, and phalanges, several of which were displaced into unusual locations among the other bones.

The remains are currently being cleaned and prepared for repatriation to SRPMIC by Deil Lundin. Once that has been completed we may know more about the nature of the individuals, but we were able to make some initial assessments based on observations made during their recovery. We can't yet identify the gender of all three individuals, but there are some indications that at least one of them was male. Based on epiphyseal closures, they range in age from about 14-21 years. One of them appears to be younger, probably 14-17, the other two between 17 and 21 or so. The younger one probably stood about 5' 3", the other two at 5' 6" and 5' 7". These are, of course, rough approximations from the lengths of femurs as well as we could measure them in the ground.

The first one, the youngest, was more or less intact below the 9th thoracic vertebra but was missing its right arm. The right foot was also missing.

The second one was more or less intact below the 9th thoracic vertebra as well. Its right arm was laid over the left arm of the first one. The left arm was missing, as were the toes of the right foot. The toes of the left foot were found in a cluster a few inches away from where they belonged, with a big toe lying between the shins.

The third individual was the least complete with no spinal elements and only part of one hip. The legs were mostly intact but both feet were missing. Several fragmentary arm bones were located between the second and third individuals but it wasn't clear which one they belonged to.

With the exception of a few carpal bones associated with the second individual and a few scattered phalanges, all of the hands were missing. Given the good condition of the other bones, including the scattered fragments, metatarsals, and foot phalanges that were recovered, this does not appear to be a matter of preservation.

A possible fourth individual may also have been interred with the other three. Several fragments of neonate cranium were recovered from the general vicinity of the articulated remains.

Stones from the collapsed walls of the room lay directly on the bones of the articulated remains and there is evidence that the impact of the wall fall broke and crushed several of them in place. However, there was very little displacement of these broken bones – a stark contrast to the random scattering of fragments at multiple levels throughout the room. Also, despite the apparent intensity of the fire that brought a large portion of the roof down on top of the remains and the fact that some bone fragments were discovered below the burned beams, none of them appear to have been affected by the heat.

So far, we are at a loss to determine a sequence of events that would have resulted in the situation we found in Room 22: portions of three individuals laid out more or less intact and undisturbed on a clean floor while other portions of those individuals are shattered and scattered randomly throughout the wall lying around and above them. Hopefully, examination of the remains prior to repatriation may help us to understand what happened here and how it may relate to the deliberate destruction of the room.

Artifact Processing and Analysis

Much of the summer of 2017 was devoted to lab work. All of the artifacts from the excavations done in Season 5 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 and preliminary analyses were completed on all of the lithics, ground stone, and other artifact types as well.

Ceramics

Total recovery of ceramics to date now comes to 23,770 sherds: 18,587 of these are plainware (78%), 4899 are redware (21%), and the remaining 2845 sherds (1%) are decorated and/or imported, including imported Gila Plain, Gila variety pottery from the Salt-Gila Basin and several sherds of Apache pottery (Rimrock Fingernail Indented). The ratios remain about the same as they were last year (Wood 2016).

The bulk of the plain and red pottery appears to be local (Tonto Plain and Tonto Red, primarily Payson variety followed by Verde variety), though several varieties from the Sierra Anchas, Tonto Basin, and other relatively nearby central Arizona sources were also recognized during the rough sort. As many as 25 whole or partially reconstructable vessels have been identified from Rooms 1 and 7, nearly all of which are locally made 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 continues to 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 still suggests 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 and were wealthy enough to engage in some fairly wide-ranging trade, at least during the Preclassic Period. After 1150, the level of imports drops drastically, suggesting a distinct change in the political and/or economic position of the settlement, possibly reflecting the rise of the much larger Risser Ranch Ruin at the top of Alpine Heights just a kilometer to the South.

Lithics (general)

This year, preliminary sorting of the lithics, including projectile points and whole or fragmentary mescal knives identified 2182 flaked stone artifacts, bringing our running total to 7208 and raising the ratio of ceramics to lithics to 70/30. As in previous analyses, 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 may enlighten this assessment, but at the moment, the Goat Camp lithic industry continues to appear to have been expedient in the extreme with only projectile points and mescal knives being produced by local specialists or acquired by trade. There is clear evidence for tool manufacture on site, but it remains mostly confined to the upper levels of Rooms 6 and 7 where it appears to be related more to the Apache re-occupation than the original prehistoric lithic industry. A smaller concentration in the upper fill from Room 22 suggests that it, too, may have figured in the Apache occupation.

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 96% of all of the lithic material identified, with a few exceptions, can be found within a five mile radius of the site and much of it closer than that.

Mescal Knives and other Tabular Tools

A total of 54 pieces comprising 10 whole tools (intact and reassembled) and 36 fragments (8 mescal knives and 2 saws) have now been recovered from both surface and room fill contexts, which included every room but 31 (so far). The mescal knives are almost evenly divided between the rhyolite and schist types identified last year with a couple being made of the local limestone while the saws are divided between the schist and a coarse but highly cemented quartzite that remains to be sourced. As noted last year, all of these materials, except the limestone, are imports. Indeed, the tools themselves

may well have been imported, as there is no chipping debris of those materials that would suggest manufacture on site.

Projectile Points and Drills

The collection of points and drills recovered continues to grow with a current total of 71 points, only 18 of which are too fragmentary to fully characterize, and 6 drills. As they did last year, both of these artifact types continued to be concentrated in the upper fill, the bulk coming, again, from Room 7.

Of the 53 more-or-less intact points, the most common form is a small side-notched triangular form with either a flat or concave base. One of these is very well made in the Preclassic Hohokam style; the rest at first glance could be either Classic Period Hohokam/Salado forms common to all of central Arizona or Apache. Further analysis may be able to separate the two styles; based on their context (mostly in the upper fill of rooms 6 and 7), more than half of them are probably Apache.

The next largest class of points are narrow contracting stemmed triangulars at 30%, one of which is serrated. These conform to patterns typically associated with Preclassic Hohokam.

The next largest class, at 25%, are simple triangular, split half and half between flat and concave bases. 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.

Finally, there are a few corner-notched and expanding stem points that suggest an Archaic origin.

Material composition continues to follow the patterns seen last year. Most of the points and fragments (86%) are made of local silicates, primarily chalcedonies (39) and cherts (22). This distribution largely matches that of the general lithic population, in which the local silicates also account for 86% of the assemblage, the only difference being a higher preference for chert as a material for projectile points (31.1%) as opposed to all lithic artifacts (13.6%). 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.

Seven 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 remains unknown. Interestingly, in the general lithic population all other examples of obsidian appear to be from the Government Mountain source except for two Apache Tears from Superior. All of the drills are made from local chert.

Our observations on context remain unchanged, which is not remarkable since we were digging in the same rooms as last year. Most of the points and all of the drills came from just two rooms – 6 and 7, and most of those from 7. 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 6 and 7 and to a lesser extent 22 continue to support an interpretation of a later, probably Apache reoccupation of at least the SW corner of the site and the dearth of points found so far from floors and deep room fill, still suggests that the prehistoric occupants of Goat Camp devoted much more effort to farming than hunting (Wood 2016).

Quartz Crystals

Seventeen intact quartz crystals and 5 fragments have also been recovered from the site, visually identified as having come from the nearby (6 miles) Diamond Point crystal field. More than two thirds of them came from the fill of Rooms 6, 7, and 22, deposits we have identified as representing the Apache reoccupation.

Ground Stone

The most interesting aspect of the ground stone assemblage remains its material composition. Thirty-two portions of metates have been recovered to date including 9 whole, partial or reassembled metates (10 if you include the large portion of a trough metate left in the masonry pedestal on Room 7) and 15 isolated fragments. Altogether, then, a maximum of 25 individual metates may be represented, some from each excavated room. Of the whole and partial metates, 7 are trough style, 2 are oval basins, and one appears to have been a slab. Of the fragments, all appear to have come from trough style metates. Over two thirds of them are made of materials present either on site or within less than a mile: 48% are made of Tapeats Sandstone, 16% are made of Payson granite, and 36% are made of vesicular basalt, the only imported material. These were found in Rooms 6, 7, 22, and 31 and scattered on the surface of the site. Most of them were a hard, black vesicular basalt, it does not occur anywhere in the Payson area; one whole metate from Room 7 was a soft iron gray variety similar to that used for many of the manos.

In addition to the metate fragments, 125 other pieces of ground stone have now been recovered to date. Almost 60% of those are whole or partial manos. The 8 whole or reassembled 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, many of which show signs of continued use after being broken. There are also three “floor polisher” style grooved round manos, including the one found last year in situ on the upper floor of Room 7 crusted with red ochre on the grinding face.

Other types of ground stone recovered include 3 metamorphic and basalt lap stones, a diorite pestle, 23 assorted hammerstones, 10 polishing stones, 3 grooved abraders, five whole $\frac{3}{4}$ -groove diorite axes, including an unfinished blank and one that had been converted to a maul, all Classic Period Hohokam style, 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 maintains the rather interesting composition seen last year. As noted above, the metates are few and are mostly local in origin, two-thirds of them made from materials on or adjacent to the site. 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 (36%) are of vesicular basalt. This was not the same hard black vesicular basalt seen in most of the metate fragments, but a soft 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 (26%) are of a coarse, granular basalt similar in composition to the Buckhead Mesa basalt and probably came from the same area. Thus, over 60% of the manos appear to have come from some distance away. Most 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 continues to appear that it ended up in the rooms as part of the earlier occupation trash that fills them, suggesting that it comes from the earlier, Preclassic occupation and, like the decorated pottery, reflects a time when Goat Camp was more affluent or at least more connected to long distance trade.

Shell

A total of 84 items of shell representing four species have been recovered to date. Most of it is *Glycimeris* (53.6%), including 8 bracelet fragments, 2 ring fragments, 28 pendants or beads (small entire shells with drilled umbos), a carved and polished needle, and a variety of other fragments. Together with the *Glycimeris*, the 18 whole or fragmentary *Conus* tinklers (including one whole shell with the apex ground off to make a hole) at 21.4%, 7 *Olivella* beads at 8.3%, and the lone abalone

pendant at 1.2% make up the bulk of the collection that can be identified to genus at this time. An additional 15 pieces that includes what may be *Laevacardium* and several nacreous fragments rounds out the collection, pending more detailed analysis.

The focus of the shell assemblage shifted this year from the post-occupational trash fill in Room 15, to the upper floor of Room 7, which has now produced over two thirds of the shell artifacts recovered from the site, including an apparently complete bracelet or necklace made up of small entire *Glycimeris* shells with drilled umbos along with a variety of other beads and tinklers scattered amongst the broken pots on the floor.

Beads, Pendants, and Carvings

Relatively few artifacts in this category have been recovered, nearly half of which were found on the surface, with only a couple of additional shell and steatite beads found over the last year.

Bone, Antler, and Basketry/Fiber Industries

No additional artifacts from these categories were recovered this last year, with the exception of a small piece of burnt daub from the stone pedestal in Room 7 that contained an impression of what looks like a twilled mat or basket.

Chronological, Environmental, and Other Samples

As noted last year (Wood 2016), all but one of the rooms investigated so far burned; charcoal and burnt daub samples have been recovered from every room but 15. As a result, we have 34 datable samples of charcoal, including carbonized beans from Rooms 7 and 31 and corn kernels from Room 7. We have decided to have samples run by Beta Analytic and are currently soliciting more funding toward a goal of having at least one (preferably two or three) AMS or radiometric date from every room (depending on funding).

In addition to the radiocarbon samples, we have also collected 24 pollen and 41 float samples so far from various locations and depths. Funding or a skilled volunteer still needs to be procured for their analysis.

Faunal material continues to be relatively abundant across the site; the total number of samples now at 128, still mostly dead burrowing rodents, some cooked (burnt and fragmented) artiodactyl long bones and ribs, a few turkeys(?), and the occasional bunny. These latter samples suggest a good mixed diet of hunted meat and farm produce. The array of farmed produce we have any direct evidence for (at least until the floats and pollen samples have been processed) is still limited, but in addition to the carbonized tepary beans from Rooms 7 and 31 we now have a number of corn kernels from Room 7.

Time and Value

Season 5 work required 1556 hours of labor for a total to date of 6175 hours that have been contributed by the volunteer staff and crew, not counting administrative time or travel for those who are not full time Payson residents. At a very conservative in-kind valuation of \$20 per hour of volunteer labor, the Arizona Archaeological Society has contributed a minimum equivalent of \$123,500 to the project on behalf of the Town of Payson over the last five years.

Some Preliminary Conclusions

The work of Season 5 has basically reinforced the conclusions reached after Seasons 3 and 4 (Wood 2016), which are repeated below, with a few minor adjustments. The biggest surprise of Season 5 was the discovery of the very unusual burial in Room 22.

Based on the architecture and ceramics we have observed so far, Goat Camp Ruin still 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, probably those in Tonto Basin but possibly as a result of direct contact with the Salt River Valley. 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.

Outline of Work Proposed For Season 6

Excavation Work: First Priority

- Room 6 Assess the stabilization potential of the room and plan either wall treatments or complete backfilling as appropriate.
- Room 7 Excavate the SE quarter down to the lower floor and 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 15 Buttress the back wall with a ramp of rock and backfill the room. Relocate the remaining backdirt and rock piles. Stabilize the remaining exposed walls.
- Room 22 Complete excavation of the entryway and follow up with construction studies of the walls to determine its relationship to Room 6. Begin stabilization as time allows.
- Room 31 Complete excavation of the entryway and follow up with construction studies of the walls. Determine whether to stabilize and expose walls or completely backfill.
- Rooms 8, 28, 29, 30 Do more extensive wall clearing to better define units for excavation. Begin excavation of this room complex with a test trench through Rooms 28, 29, and 30 along the outside face of the east wall of Room 8. Additional work will involve the selection and excavation of at least one quarter of each of those rooms and the complete excavation of Room 8 by quarters, followed by wall construction studies and stabilization.

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 26 Clear and define this presumed “retaining wall” and make surface collections along it to determine how it relates to the occupational history of the site either as an original feature or as an Apache attempt to fortify that portion of the site they had reoccupied.
- 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 6th 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 2018 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

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.

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Appendix 1

GOAT CAMP RUIN PROPOSED STABILIZATION PLAN

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This document is a preliminary stabilization plan for three of the excavated rooms at Goat Camp Ruin. Each wall of the various rooms will be discussed individually by describing their current condition and then what steps should be taken to stabilize them. We will be using the dirt that was excavated from each room and is now located in a screening sift pile near the room. This dirt will be combined with an amendment solution consisting of 20 parts water and 1 part SoilShield-LS. The amendment, SoilShield-LS, is a Vinyl-Acrylic Emulsion Polymer which locks soil particles to effectively resist both water and wind erosion. It is colorless when dry so it does not impact the natural color of the soil being used in the stabilization process. This product has been used to stabilize other sites including Pueblo Grande in Phoenix, Q Ranch Ruin near Young AZ, and Risser Ranch Ruin in Payson.

ROOM 1

This room was completely excavated. It was originally dug into the hillside so that three of the walls face the original room pit while the fourth (east) was more or less free-standing at grade. That wall is the least well preserved.

NORTH WALL:

Condition:

This wall is three to four courses high and two stones wide. The interior face is in fairly good condition, but there is one damaged stone due to spalling.

Stabilization:

1. Remove any loose pieces of spalling stones.
2. Remove loose mortar and roots from mortar joints and repoint with amended mortar.
3. Remove top wall stones and mortar them back in place. It might be desirable to add another new course to the top of the wall. This added course would seal the wall top and being above ground surface would prevent water from running into the room.

EAST WALL:

Condition:

This wall has a doorway that has been disturbed by a very large tree. The tree has completely deformed the entryway forcing the stones out of place. This wall is one to two courses high except in the NE corner where it is 3 high. The mortar joints of these very large face stones have deteriorated. The wall is mainly one stone wide except at the NE corner where a buttress apron outer stone alignment begins. This alignment seems to be in-place on both sides of the doorway. The apron stones between this outer alignment and the wall face are nearly all missing.

Stabilization:

1. Remove loose mortar and roots from mortar joints and repoint with amended mortar.
2. Add a second course to the wall top to seal and stabilize the wall.
3. Reset the doorway entry stones where possible.
4. The outside alignment of buttress apron stones seem to be in-place, so fill in the area between them and the wall face with new stones and mortar.

SOUTH WALL:

Condition:

This wall is two courses high going up to three as it nears the SW corner. There is a large root at the SW corner. Stones forming a buttress apron are present.

Stabilization:

1. Remove loose mortar and roots from mortar joints and repoint with amended mortar.
2. Relay the top course or add another course to seal the wall top and divert runoff.
3. Remove top wall stones and mortar them back in place. It might be desirable to add another new course to the top of the wall. This added course would seal the wall top and being above ground surface would prevent water from running into the room.

WEST WALL:

Condition:

This wall is three courses high except at mid wall where it is four high. This wall top is partially covered by wall fall making it impossible to see full wall width and if a buttress apron exists.

Stabilization:

1. Remove stones and dirt covering the wall top in order to expose actual wall width.
2. Remove loose mortar and roots from mortar joints and repoint with amended mortar.
3. Add a top course of stone along entire wall to help divert water runoff from entering the room.
4. Remove top wall stones and mortar them back in place. It might be desirable to add another new course to the top of the wall. This added course would seal the wall top and being above ground surface would prevent water from running into the room. Construct a water runoff diversion channel outside the wall alignment.

WING WALL:

This partially excavated north-south wall (Feature 1a) is located on the north side of Room 1.

Stabilization:

1. Relay the top course.
2. Backfill the excavated area leaving the top course exposed for interpretation purposes.

ROOM FLOOR:

The geotextile that covers the floor should be completely covered with dirt. Backfill dirt should be added to slope the floor toward the center of the room. This will allow rainfall to flow toward center and away from the walls.

ROOM 15

This rooms was completely excavated. It was originally dug into the side of the ridge to a depth of over a meter at the back (west) wall. When built, the structure was not adequately stressed against dead load behind that wall and it collapsed, apparently repeatedly, until the room was abandoned and turned into a trash pit. As a result there is really no wall there to stabilize. Instead, the best approach will be to buttress and backfill that side of the room to prevent further slumping.

NORTH WALL:

Condition:

This wall is five courses high. There is large tree trunk and roots embedded at mid-wall. The wall face stones are one stone wide, however, the wall width on the ground surface is three to four stones wide forming a buttress apron one stone high.

Stabilization:

1. Remove loose mortar and small roots from mortar joints and repoint with amended mortar.
2. Relay all in-place surface stones leaving tops exposed in order to show how the buttress apron was constructed.
3. Reduce root lengths of the large tree that intrude into the room.
4. If possible, remove the small short stump on the east side of the large tree.

EAST WALL:

Condition:

This wall has a doorway that is in fairly good condition. The wall section on the north side of the door is in good condition whereas the south section has been greatly disturbed in the buttress apron area. The south buttress apron has only the outer large stone alignment still in-place. There is a large tree stump inside the room next to the doorway with a very large root running into the wall just south of the doorway. A decision should be made whether to remove this stump or not.

North Section: This section north of the door is five courses high with stone face alignment in good condition. The exterior buttress apron which is three stones wide is also in rather good condition with only one or two obvious stones missing.

Stabilization:

1. Remove loose mortar and roots from mortar joints and repoint with amended mortar.
2. Relay top wall stones and all stones that make up the buttress apron leaving the stone tops exposed in order to show this unique wall construction style.

South Section: This section south of the door is two to five stones high. Most of the exterior buttress apron stones are missing. The upper course doorway entry stones on this side of the door have been disturbed and are missing or are out of place.

Stabilization:

1. Remove loose mortar and roots from mortar joints and repoint with amended mortar.
2. Reconstruct this wall section adding two to three courses to level the wall top.
3. Reconstruct the south side entry stones by relaying existing stones and adding one to two stones in height.
4. Replace and mortar the missing stones that made up the buttress apron to agree with the buttress apron north of the door.
5. Cut and remove the large root running from the tree stump into the wall and relay the disturbed wall face stones.

SOUTH WALL:

Condition:

This wall is three to five stones high and is in fairly good condition. The basal course is made up of very large stones.

Stabilization:

1. Remove loose mortar and roots from mortar joints and repoint with amended mortar.
2. Add another course to seal the wall top and to divert runoff.
3. Dig a channel that connects to the west side channel to help divert water runoff away from the room.

WEST WALL:

Condition:

This wall is four to six courses high at the corners. The wall except at the curved corners has collapsed. The curved corners have been disturbed but alignments still exist. The ground surface above this wall slopes downward and would allow water runoff to flow into the room.

Stabilization:

1. Arrange the collapsed stones to form a buttress to support the ground behind them.
2. Since the ground surface slopes downward toward the room, dig channels above and around the sides of the room to divert water runoff away from the room. Spray SoilShield-LS on these channels to harden the surface and retard erosion.
3. Reconstruct the north curved corner and repoint mortar joints with amended mortar.

4. Straighten and reconstruct a portion of the south curved corner using amended mortar.

ROOM FLOOR:

The geotextile that covers the floor should be completely covered with dirt. Backfill dirt should be added to slope the floor toward the center of the room. This will allow rainfall to flow toward center and away from the walls.

ROOM 6

This room has been partially excavated. The northeast quarter which contains a large multi-trunk tree remains unexcavated. It appears that the basal course in this room was originally made using large rather flat cobbles placed vertically on their edges except for one large granite stone located in the west wall. At some point in time the south wall collapsed and the large vertical stones were replaced by smaller stones. The depth of the room plus the fact that it has no external drainage poses a challenge for dealing with water accumulation.

NORTH WALL:

Condition:

Only half of the wall length has been exposed. Vertical slab stones make up the basal course. Near the mid-wall of this exposed section are six small stones above one of the vertical slab stones. There is a layer of exterior surface stones three to four stones wide forming a buttress apron.

Stabilization:

1. Remove loose mortar and roots from mortar joints and repoint with amended mortar.
2. Relay top wall stones on interior wall face.
3. Remove loose soil and vegetation in the buttress apron area and relay and partially cap the stones that make up the apron area.

EAST WALL:

Condition:

The doorway is in this wall next to the unexcavated NE quarter. At least four face stones south of the doorway have fallen. This wall consists of large vertical face stones except next to the SE corner. A buttress apron is partially visible on the outside of the wall.

Stabilization:

1. Relay the fallen face stones using photos that show their original location.
2. Remove loose mortar and roots from mortar joints and repoint with amended mortar.
3. Add stones to the buttress apron area as needed to replace missing stones.

SOUTH WALL:

Condition:

From the SE corner going westward there are three very large vertical basal slabs. There are two to three smaller stones on top of vertical stones #2 and #3. From this point west there are no vertical stones but small flat faced stones five courses high until you get to the SW corner. Several stones are missing in the buttress apron area. Many wall top stones are slanted out of normal position.

Stabilization:

1. Remove loose mortar and roots from mortar joints and repoint with amended mortar.
2. Level and relay all top stones that make up the wall face.
3. Replace missing stones in the buttress apron area.

WEST WALL:

Condition:

The basal course in this wall consists of large rather flat stones placed vertically on their edges. One exception to this is a large granite stone located between 1.03 and 1.53 M from the center of the NW corner. There are one to three courses above the vertical stones. There is a buttress apron along the outside of this wall that is a continuation of the other wall buttress aprons.

Stabilization:

1. Remove loose mortar and roots from mortar joints and repoint with amended mortar.
2. Level and relay all top stones with amended mortar.
3. Replace any missing stones in the buttress apron area.

ROOM FLOOR:

The geotextile that covers the floor should be completely covered with dirt. Backfill dirt should be added to slope the floor toward the center of the room. This will allow rainfall to flow toward center and away from the walls. It may be necessary to construct a dry barrel beneath one of the less well preserved sections of floor to provide drainage. If no good drainage solution is achievable, it may be necessary to simply backfill the room and focus interpretation on the exposed tops of the walls.

ADDITIONAL ROOMS

The specific plans laid out above for Rooms 1, 6, and 15 establish the general plan for treating all additional excavated rooms at Goat Camp Ruin that will be included in the interpretive program. Upon completion of excavation, floors, hearths, and other floor features will be preserved under geocloth and screened backfill. The only possible exception regarding floor features would be the masonry platform on the upper floor of Room 7, which may, if feasible, be stabilized and left exposed for interpretation. Each room will then be assessed for its specific and unique characteristics of wall construction, construction materials, root and other damage, character of the fill behind the walls, drainage issues, etc., and a plan laid out to treat each wall and establish some form of internal (dry barrel) or external (channel) drainage.

