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## FEATURE DESCRIPTIONS: PART 4. BRICKYARD LOCUS, THE CLEARWATER SITE, AZ BB:13:6 (ASM)

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Archaeological work conducted during the Rio Nuevo Archaeology project resulted in the discovery of hundreds of features—areas in which human activities took place. Descriptions of excavated features and summarized data on unexcavated features are presented in this chapter. Descriptions of human burials found during the project are provided in Chapter 18 (this volume).

Work during this project was conducted at four different archaeological sites. The San Agustín Mission, Mission Gardens, Brickyard, and Congress Street loci were located at the Clearwater site, AZ BB:13:6 (ASM), on the western side of the Santa Cruz River. AZ BB:13:481 (ASM) were the Prehistoric, Protohistoric, and Historic era canals, ditches, and a spillway, also located on the western side of the Santa Cruz River. The Tucson Presidio has been designated AZ BB:13:13 (ASM), and the site includes both prehistoric- and historic-era features. Finally, a portion of a historic-era residential block on the northern side of Clark Street and east of the Interstate 10 (I-10) frontage road was designated AZ BB:13:735 (ASM).

The feature descriptions in this chapter are grouped by locus, except for canals, which are described in Part 6 and which are grouped by time period. All site numbers in this chapter are Arizona State Museum (ASM) numbers. Radiocarbon dates are reported in both uncalibrated radiocarbon years before present (b.p.), and in calibrated calendar years at the 1-sigma range of probability. Excavated and unexcavated features are listed, by site/locus and time period, in Table 4.1 (see Part 1 of this chapter).

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Excavations at the Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM), located Early Agricultural period features dating to the Cienega phase (800 B.C.-A.D. 50). A roasting pit, Feature 3287, probably dates to the Early Ceramic period (A.D. 50-500), and two pit structures, Features 3293 and 9376, date to either the Early Ceramic period or the Hohokam periods (see Table 4.1). A suite of features associated with the Tucson Pressed Brick Company complex, which operated from the 1890s to the 1960s, was found above the prehistoric features (see Figures 1.12 and 1.14, this volume).

### PIT STRUCTURES

#### Feature 3220, Pit Structure

##### *Description*

Feature 3220 was discovered during mechanical stripping and was then completely excavated by hand (Figure 4.38). This feature was a round pit struc-

ture measuring approximately 2.77 m in diameter. Nine possible postholes and a central pit were discovered inside the structure. No entry was identified, and orientation of the pit structure could not be determined. There was no evidence the structure burned, and no artifacts were found in contact with the floor.

##### *Internal Features*

Nine possible postholes were discovered in the floor of the structure. Seven of these postholes were excavated and each measured 10 cm in diameter and 5 cm deep. The two unexcavated postholes also measured 10 cm in diameter. All the postholes were found around the interior edge of the northern half of the structure.

Feature 3220.01 was an elliptical pit with a basin-shaped profile that was discovered in the center of the floor. It measured 95 cm in length, 65 cm in width, and 9 cm in depth. Two pieces of flaked stone and about 20 pieces of fire-cracked rock were discovered in the fill, with four of the fire-cracked



**Figure 4.38.** Feature 3220, a Cienega phase pithouse, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

rocks measuring over 5 cm in diameter. Five of the pieces of fire-cracked rock recovered were also ground stone fragments. Some small patches of oxidation were found in the fill and on the bottom of the pit, possibly suggesting its use as a small roasting pit or informal hearth.

#### *Internal Strata and Artifact Contents*

Approximately 17 cm of fill was excavated between the stripped surface and the floor of the pit structure. The fill was flood silt with small amounts of burned daub and charcoal flecking. Artifacts found within the fill included pieces of flaked stone, a few small sherds, fragments of unworked faunal bone, a terrestrial snail shell, and a possible figurine fragment.

Roughly 190 pieces of fire-cracked rock were found in the fill. Most measured less than 5 cm in diameter, and all but 30 pieces were confined to the southern half the pit structure. After the southern half was excavated, the outline of the base of an intrusive pit, Feature 3244, was discovered in the floor of the structure. It was not noticed during excavation and may have been the source of the concentration of fire-cracked rock in this half of the pit structure.

#### *Construction and Remodeling Evidence*

When excavated, the walls of this structure extended about 15 cm above the floor, although they may have been slightly truncated by mechanical stripping and modern activity at the brickyard. Neither the walls nor the floor of this pit structure ap-

peared plastered or prepared in any way. The postholes discovered in the floor probably held wall support posts, but represented the only evidence discovered for a superstructure.

#### *Stratigraphic Relationships*

This feature was built into the alluvial clays of the floodplain. Sometime after its abandonment, the feature was filled with flood silts. An intrusive pit, Feature 3244, was later built into the southern half of the filled structure. Feature 3216, a modern subterranean brick processing area, then impacted the southeastern ends of both the pit structure and the intrusive pit.

#### *Abandonment and Postabandonment*

The very small amount of burned daub discovered in the fill suggested that this pit structure did not burn. It was unclear, however, if the superstructure was left in place or if it was scavenged after abandonment of the structure. The lack of artifacts on the floor suggested the pit structure was cleaned out prior to abandonment. After abandonment, the pit structure was filled by flood silts.

### **Feature 3245, Pit Structure**

#### *Description*

Feature 3245 was discovered during mechanical stripping of the area. It was then completely excavated by hand (Figure 4.39). This was a round pit structure measuring some 3 m in diameter. Excavation of the pit structure revealed the possibility that this house actually had two separate floors or occupation surfaces and may have been remodeled. Thirty-three of the postholes found within the structure originated at the upper floor. A possible hearth and a depression that may have been a pit also originated at this surface. Some small pieces of oxidized daub were found lying on the upper floor, although no artifacts were present. Upon reaching this floor of compacted clay, some silty areas were noticed and investigated. Excavations below the upper floor revealed two additional large postholes originating in a possible second, lower floor. A Cienega style projectile point was found just above this surface, along with several larger chunks of burned daub with reed

impressions. Except the oxidized daub, neither surface showed any evidence of burning.

The postholes in the upper floor were arranged along the inside edge of the pit structure. Two breaks in the posthole pattern may indicate entrances to the structure. There was one larger opening to the east and a smaller opening to the west. There were no other indications about the orientation of the pit structure. Because only two postholes were discovered in the lower floor, no determination could be made regarding the orientation of the structure during its earlier use.

No artifacts were present on the upper floor, and only one projectile point was found just above the lower floor. This feature was most likely used as a habitation structure.

#### *Internal Features*

Thirty-three postholes (A to EE, Feature 3245.01, and Feature 3245.02) were discovered in the upper floor of the pit structure. Feature 3245.05, a possible hearth, and Feature 3245.06, a possible pit, were also found in the upper floor. Two postholes, Features 3245.03 and 3245.04, were found associated with the lower floor.

The 33 postholes from the upper floor ranged in size from 9 cm to 24 cm in diameter, and from 3 cm to 12 cm in depth. Twenty-seven of these postholes (A to AA) were found near the interior edges of the pit structure. Three postholes (BB, DD, and EE) were on the southern side of the pit structure, just inside the first ring of postholes. Two others (CC and Feature 3245.01) were located just inside the first ring of postholes in the northeastern quadrant of the struc-

ture. The last of the 33 postholes, Feature 3245.02, was located in the northwestern quadrant, about halfway between the wall and the center point of the structure. A core was found inside this posthole.

Feature 3245.05 was an oxidized area of the upper floor that could represent a hearth. The oxidized area was roughly circular, and measured about 17 cm in diameter. This feature had no depth and therefore no fill.

Feature 3245.06 was a silty depression in the upper floor of the pit structure, located just east of the hearth area. The depression was almost round, with a diameter of 35 cm, a depth of 6 cm, and silty fill. The depression may be the poorly preserved remains of a pit. This feature contained an ochre-stained mano.

The remaining two postholes were associated with the lower floor.

Feature 3245.03 was located near the western edge of the pit structure and measured 30 cm in length, 35 cm in width, and 15 cm in depth. The fill was silty with charcoal flecking. No artifacts were found in this feature.

Feature 3245.04 was located slightly back from the southern edge of the pit structure and measured 30 cm in diameter and 11 cm in depth. The fill was silty and contained no artifacts.

#### *Internal Strata and Artifact Contents*

Roughly 20 cm of fill was excavated between the stripped surface and the upper floor of the pit structure. The top 10 cm of this fill was composed of flood silt and contained no artifacts. About 37 small pieces of fire-cracked rock were present. The remaining 10 cm of fill above the upper floor was a mixture of light silts and dark clays, with some charcoal flecking and small pieces of oxidized daub. The density of fire-cracked rock increased to approximately 110 pieces, and artifacts were discovered, including a few pieces of flaked stone, some unworked bone, and a small sherd. When encountered, the upper floor appeared to be a surface of sterile clay with postholes and a possible hearth. When silty areas in the upper floor were investigated, the possibility of a lower floor was discovered. Another 10 cm of fill existed between the upper floor surface and the lower floor surface. This fill was a mix of alluvium, colluvium, and cultural trash. Charcoal flecking was abundant, and some 15 large (greater than



**Figure 4.39.** Feature 3245, a Cienega phase pithouse, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

5 cm in diameter) pieces of burned daub with reed impressions were found. Artifact density was higher in this fill than in any previous layer of fill. A Cienega style projectile point was found 3 cm above the lower floor.

#### *Construction and Remodeling Evidence*

The postholes arranged around the perimeter of the upper floor of the feature probably represent wall support posts of the superstructure. The other postholes further within the feature may represent roof support posts. Very little construction debris remained on the upper floor as evidence of the superstructure.

That the pit structure was remodeled at least once is supported by the presence of a lower floor and the discovery of burned daub in the fill above that floor. The two postholes found in the lower floor give no real indication about how the earlier superstructure was arranged. The walls of Feature 3245 also gave some indication that there was more than one occupation of this structure. The walls of the pit structure were fairly vertical, to the point where they come in contact with the upper floor. Beginning at, or just beneath, the upper floor, the walls belled slightly outward down to the lower floor. The walls did not appear plastered or prepared in any way.

Neither the upper nor the lower floor appeared prepared or plastered.

#### *Stratigraphic Relationships*

This pit structure was built into the floodplain alluvium down to the level of the lower floor. Feature 3245 was probably abandoned and the construction and cultural materials scavenged or curated. The remaining pit was then used as a dump for domestic trash and was also partially filled by alluvial and colluvial deposits. The foundation pit was then used a second time, with the top of the old deposits being used as the new, upper floor.

There were no overlying or intrusive features. Feature 3245 is in line with an arc of other pit structures around a central open area.

#### *Abandonment and Postabandonment*

After its reuse, the pit structure was abandoned again. It is not clear if the structure burned during either the first or second abandonment. The structure was partially filled by alluvial and colluvial clay deposits, then filled with silts from a flooding episode. After flooding, alluvial and colluvial deposition continued and covered the filled feature.

### **Feature 3260, Pit Structure**

#### *Description*

Feature 3260 was discovered during mechanical stripping and was completely excavated by hand (Figure 4.40). This pit structure was slightly ovoid and measured some 2.93 m in diameter. Features discovered within the pit structure included 14 postholes and a hearth. Another pit, Feature 3315, was discovered just beneath the floor of the pit structure and may have been an intramural pit. The entry was not identifiable, and orientation of the pit structure could not be determined. The structure was burned, and no artifacts were found on the floor. This structure may have been used for habitation.

#### *Internal Features*

Fourteen postholes were discovered in the floor. They ranged in size from 1 cm to 28 cm in length, 6 cm to 20 cm in width, and 6 cm to 15 cm in depth. All were around the interior circumference of the pit structure, except Feature 3260.03, which was located in the center of the northwestern quadrant. Features 3260.02 and 3260.03 contained remnants of burned support posts.

Feature 3260.01 was an irregularly shaped hearth, roughly 35 cm in diameter and 5 cm deep. The walls and bottom of the hearth were heavily oxidized from use. The fill of the hearth was dark silty clay, with some charcoal flecking and pieces of oxidized daub, much like the fill of the pit structure. The absence of ash in the hearth suggested it was cleaned out prior to abandonment.

Feature 3315 was a pit roughly 75 cm in diameter, just beneath the floor of the pit structure. It was first thought that another floor might exist beneath the first. The pit was initially listed as a separate feature because it was not visible in the floor of the pit structure. However, the fill of this pit contained large lumps of oxidized daub that may have come from burning of the pit structure. This feature may have been an intramural pit.

#### *Internal Strata and Artifact Contents*

About 16 cm of fill was excavated between the stripped surface and the floor. No discrete strata existed in the fill, although charcoal flecking and pieces of burned daub became more abundant lower in the fill. A thin layer of charcoal and ash less than 1 cm thick was discovered just above the floor. The floor was oxidized in some areas.

The fill of the pit structure contained pieces of flaked stone, some unworked animal bone, a seashell



**Figure 4.40.** Feature 3260, a Cienega phase pithouse, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

bead, a small sherd, and a snail shell. Approximately 75 pieces of fire-cracked rock were present in the fill, with only three larger than 5 cm in diameter. No artifacts were present on the floor.

#### *Construction and Remodeling Evidence*

The postholes near the edge of the pit structure probably represented wall support posts for the superstructure. Feature 3260.02 may have represented a roof support post. The large amounts of oxidized daub found in the fill were evidence of a wattle-and-daub superstructure.

When excavated, the walls of the pit structure were approximately 16 cm above the floor. The walls may have been slightly truncated by mechanical stripping. The walls, floor, and hearth did not appear to have been plastered or prepared in any way. No evidence was found to indicate that the pit structure had been remodeled.

#### *Stratigraphic Relationships*

Feature 3260 was built in the alluvial floodplain. The pit structure was filled with flood silt that covered and mixed with the remains of the burned superstructure. This feature overlay at least one other feature, Feature 3314, an extramural pit. A second pit, Feature 3315, may actually have been a subfeature of Feature 3260 and not a separate, earlier feature. Pit structure Feature 3260 was not intruded on by any other features. It was, however, included in an arc of pit structures situated around a central open area.

#### *Abandonment and Postabandonment*

The absence of artifacts on the floor of the pit structure suggested it was cleaned out before it burned. The large amounts of burned daub and charcoal showed that the superstructure was still present and standing when the burning occurred. The feature filled rapidly with flood silt soon after the structure burned, preventing the deposition of cultural trash in the fill. Continuing floodplain processes then covered the filled structure.

#### **Feature 3262, Pit Structure**

##### *Description*

This feature was discovered during backhoe stripping of the area. After it was uncovered through mechanical stripping, fill of the feature was excavated by hand. This round pit structure measured roughly 3.2 m in diameter. Two possible postholes were the only features found in the pit structure. No entry was discovered, and orientation of the structure could not be determined. The structure appeared to have burned, and a possible de facto artifact assemblage was revealed on the floor. The feature was constructed into the fill of an earlier pit structure, Feature 3270.

##### *Internal Features*

It was difficult to discern features in this pit structure, as the floor was a layer of use-compacted fill from the lower pit structure, Feature 3270. The two internal features that were identified were possible postholes, located near the interior edge of the pit structure. They measured 10 cm in diameter and 10 cm in depth.

##### *Internal Strata and Artifact Contents*

About 28 cm of fill was excavated between the stripped surface and the floor of this pit structure. No strata were discernable in the fill, but quantities of charcoal and burned daub increased in the lower fill. Patches of the floor showed oxidization.

Artifact density throughout the fill was low, although it was higher toward the top of the fill. Artifacts discovered in the fill included pieces of flaked stone, unworked animal bone, some sherds, and a broken Cienega style projectile point. The artifact

assemblage found on the floor consisted of a steatite bead, an unfinished vesicular basalt bead, a pestle blank, and a core tool.

#### *Construction and Remodeling Evidence*

The two possible postholes may have represented wall support posts for the superstructure. The large amounts of oxidized daub indicated the superstructure was of wattle-and-daub construction.

When excavated, the walls of the pit structure were approximately 28 cm above the floor. The walls of the pit structure may have been slightly truncated by mechanical stripping. An area about three-quarters of the circumference of the pit structure showed a slight slope toward the walls of the pit structure. The sloping area ran clockwise from the western side to the southern side of the feature, and began as far as 50 cm from the structure wall at its widest point. This sloping surface was thought to be an overexcavation of the foundation pit during construction of the feature. On the eastern and southeastern sides of the feature, this sloping surface was the top of the fill of the lower pit structure, Feature 3270. The walls and floor did not appear to be plastered or prepared in any way. No evidence for remodeling the pit structure was found.

#### *Stratigraphic Relationships*

Feature 3362 was built almost entirely into the fill of Feature 3270, an earlier pit structure. The northern edge of Feature 3362 also intruded on two earlier extramural pits, Feature 3310 and Feature 3311. This structure was not intruded on by any other features. Feature 3262 was included in an arc of other pit structures around a central open area. This feature is less than 30 cm northeast of Feature 9168, another pit structure, and approximately 1 m south of another, Feature 3260.

#### *Abandonment and Postabandonment*

The residual utility of the artifacts on the floor suggested the burning of this structure occurred before it was cleaned out, and the burning may not have been intentional. The oxidized construction materials found in the fill of the feature were evidence that the superstructure was still intact at the time of burning. Shortly after the burning, the foundation pit filled with waterborne silt, possibly from a single flooding episode.

### **Feature 3264, Pit Structure**

#### *Description*

Feature 3264 was discovered during mechanical stripping, and was subsequently completely excavated by hand (Figure 4.41). This round pit structure measured 3.7 m in diameter. Features discovered within pit structure Feature 3264 include 52 postholes and a hearth. No entry was discovered, and no breaks in the pattern of postholes existed, except where the structure is intruded on by a historic-era outhouse, Feature 3258, on the northern side. Consequently, orientation of the structure could not be determined. Pit structure Feature 3264 was built into the fill of Feature 3294, an earlier pit structure that was lying beneath it. A possible de facto artifact assemblage was discovered on the floor. The pit structure was not burned.

#### *Internal Features*

Fifty-two postholes were discovered in the floor. They ranged in size from 6 cm to 17 cm in diameter, and from 3 cm to 15 cm in depth. All but 10 were arranged around the interior of the structure wall. These 10 roughly formed another ring inside the first, closer to the center of the pit structure. Three of the postholes in the inner ring (SS, TT, and Feature 3264.02) overlapped slightly, and may have represented adjustments to, or maintenance of, the superstructure supports. Artifacts were found in the fill of six of the 52 postholes. These artifacts included unworked animal bone, pieces of flaked stone, and a stone tool.



**Figure 4.41.** Feature 3264, a Cienega phase pithouse, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

The postholes near the pit edge were located during investigations of what appeared to be a silt-filled floor groove in the otherwise dark clay floor. Excavation of the silt revealed that this feature was actually a ring of postholes that had been constructed into a silt deposit in the fill of the lower house, Feature 3294.

Feature 3264.01 was a roughly circular, basin-shaped hearth located just west of the center of the pit structure. It was 34 cm long, 30 cm wide, and 10 cm deep. The sides and bottom of the feature were well oxidized, and it had a slightly oxidized apron. The fill of the feature was light silt mixed with ash, and a white residue was present around the inside rim. The residue was in patches, and it is unclear if it was the remnants of plaster or a concentration of ash.

#### *Internal Strata and Artifact Contents*

Approximately 15 cm of fill was encountered between the stripped surface and the floor. No discrete strata were discernable in the fill. The fill was light flood silt with some pockets of dark clay, primarily near the floor. Quantities of charcoal flecking and burned daub were small, but increased slightly with depth, as did general artifact density. Artifacts collected from the fill included large numbers of pieces of flaked stone and unworked animal bone. Fire-cracked rock was also abundant (328 pieces), although most were small (only 51 over 5 cm in diameter). Also discovered in the fill were five sherds, two ceramic figurine fragments, a shell bead, a core, some lumps of ochre, a Cienega style projectile point, and three pieces of ground stone, including a mano.

An assemblage of artifacts was found resting on, or just above, the floor. The assemblage consisted of two cores, a piece of flaked stone, a Cienega style projectile point, a bone cruciform, and three pieces of ground stone, including a ground stone palette. The piece of flaked stone, the palette, the bone cruciform, and one of the cores were stained with ochre.

#### *Construction and Remodeling Evidence*

The ring of postholes near the interior of the pit walls probably represented the wall support posts for the superstructure. It is unknown if all the postholes were in use at the same time, and the large number may have represented remodeling or maintenance of the superstructure. The ring closer to the center of the pit structure may have represented roof support posts. The cluster of three overlapping postholes on the western side of this ring was further possible evidence that the pit structure had been remodeled.

When excavated, the pit structure walls were roughly 18 cm above the floor, although they may have been truncated by mechanical stripping. The white residue on the rim of the hearth may be evidence of plaster, although none was found on either the walls or the floor of the pit structure. There was no evidence the walls or the floor were prepared in any way.

#### *Stratigraphic Relationships*

Feature 3264 was built into the fill of an earlier pit structure, Feature 3294. The later pit structure filled through both cultural and natural processes, and once filled, was buried by these same processes. During modern use of the area as a brickyard, a pit excavated for use as an outhouse, Feature 3258, intruded on the extreme northern end of both pit structures. This pit structure lies in an arc of pit structures centered around a central open area.

#### *Abandonment and Postabandonment*

Lack of oxidization on the walls and floor of Feature 3264 suggested it did not burn. Neither the floor assemblage of artifacts nor the hearth was cleaned out when the structure was abandoned. Scavenging or curation of the cultural materials did not occur, although whether the same was true for the construction materials is unknown. After abandonment of the structure, it was filled for a time with alluvial deposits, colluvium, and cultural trash. After this, the feature filled with waterborne silt from one or more flooding episodes.

### **Feature 3270, Pit Structure**

#### *Description*

Feature 3270 was discovered during the excavation of a later pit structure, Feature 3262. After hand-excavation of the later pit structure, the remainder of the fill in Feature 3270 was also excavated by hand (Figure 4.42). Feature 3270 was a slightly ovoid-shaped pit structure measuring approximately 4.3 m in diameter. Internal features discovered within the pit structure included 9 postholes, 2 possible hearths, a large bell pit, and 2 small intramural pits. No entry was discovered, and the orientation of the pit structure could not be determined. The upper stratum of feature fill was removed from roughly half of this structure when a later pit structure, Feature 3262, was constructed. Feature 3270 burned, and a possible de facto artifact assemblage was revealed on the floor.



**Figure 4.42.** Features 3270 and 9168, Early Agricultural period pithouses, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

#### *Internal Features*

Nine postholes were discovered in the floor of the structure. They ranged in size from 8 cm to 12 cm in diameter and from 6 cm to 10 cm in depth. All the postholes were close to the interior edge of the pit walls, and all but one were located in the southeastern quadrant of the structure. This last posthole was situated in the northeastern quadrant.

Feature 3270.01 was a circular, basin-shaped hearth measuring some 45 cm in diameter and 5 cm in depth. The sides and bottom were heavily oxidized. The remnants of some plaster on the western rim of this feature suggested it was originally completely plastered. The fill of the hearth was a mixture of dark clay and gray ash, capped by a clean deposit of dark clay. This clean clay cap may have represented a sealing of the feature at the end of its use-life, prior to abandonment of the structure. This feature was constructed into the western edge of a clay deposit that caps a large bell pit, Feature 3270.02.

Feature 3270.02 was a large bell-shaped pit in the center of the pit structure. It measured approximately 1.10 m in length and 1.05 m in width at its mouth. The feature was about 77 cm deep and had a basal diameter of about 1.15 m. It was capped by a deposit of clay some 18 cm in depth, with areas of heavy oxidation. These oxidized areas were located in relation to the two possible hearth areas of the structure, Feature 3270.01 and Feature 3270.03. The 59 cm of fill under the clay cap was mottled, silty clay with large concentrations of charcoal and highly oxidized daub.

Several pieces of flaked stone and unworked animal bone were recovered from the clay cap, although

most of the artifacts collected were from the fill beneath the cap. Artifacts collected from the lower fill of the feature included pieces of flaked stone, some unworked animal bone, a possible ground stone tool, a mano fragment, some lumps of red ochre, and a ceramic figurine fragment. About 90 pieces of fire-cracked rock over 5 cm in diameter were also discovered in the lower fill.

The clay cap over this feature was thought to represent a sealing of the pit at the end of its use-life, prior to abandonment of the structure. The presence of large amounts of charcoal and burned daub in the fill suggested the feature was used as a dump for the remains of a burned superstructure of another pit structure. After the dumping, a clay cap was constructed to seal the pit. The clay cap was later

used as the location for the two possible hearth features, Features 3270.01 and 3270.03. Oxidation of the clay cap was thought to have resulted from its use as the location of these two hearths.

Feature 3270.03 was a rectangular area of heavily oxidized plaster on the eastern edge of the clay cap of Feature 3270.02. This area was roughly 40 cm long and 30 cm wide, but had almost no depth. The area was also thought to represent a hearth, possibly used after the sealing of another hearth, Feature 3270.01.

Feature 3270.04 was a roughly circular basin-shaped pit, located southwest of Feature 3270.02. This feature measured 56 cm in length and 50 cm in width, with a depth of 18 cm. The fill was dark silty clay consistent with the general fill of the pit structure. This fill, in combination with pieces of charcoal and oxidized daub found within it, suggested the feature was still in use when the superstructure burned and collapsed. The only artifacts recovered from the feature were a few pieces of flaked stone and unworked animal bone.

Feature 3270.05 was a circular basin-shaped pit that measured 45 cm in diameter and 18 cm in depth. This feature was located just northeast of Feature 3270.02. The fill of Feature 3270.05 was silty clay that resembled the fill of Feature 3270.02 more than the general fill of the pit structure. However, no clay cap was discovered on this feature, making it unclear if this feature was still in use when the pit structure burned. Large amounts of oxidized daub and charcoal flecking were found in the fill, along with a few pieces of flaked stone and some unworked animal bone.

### *Internal Strata and Artifact Contents*

Approximately 30 cm of fill was excavated between the stripped surface and the floor of this pit structure. The upper 24 cm was a layer of dark colluvial clays with a low density of artifacts. Artifacts discovered included pieces of flaked stone, ground stone fragments, unworked animal bone, two possible ceramic figurine fragments, a fragment of a bone tool, and the tip of a Cienega style projectile point. About 246 pieces of fire-cracked rock were also present in the fill, clustered primarily in the southern half of the structure.

The lower 6 cm of fill in the structure consisted of the same clays as the level above, but it contained a high density of large, heavily oxidized daub chunks and charcoal. The density of artifacts remained low. Artifacts included pieces of flaked stone, unworked faunal bone, a terrestrial snail shell, two ground stone fragments, a fragment of a bone tool, and a Cienega style projectile point.

The floor of the pit structure was an unprepared compact clay surface; it showed mostly light oxidation with a few patchy areas of heavier oxidation. The de facto assemblage consisted of a pestle, a lapstone, an anvil, a ground stone disc, a possible manuport, a ceramic fragment, and a flake stone core. Most of the assemblage was clustered in the southeastern quadrant of the structure.

### *Construction and Remodeling Evidence*

The high concentration of charcoal and daub indicated the superstructure was of wattle-and-daub construction. Depth of the fill in this structure further suggested the walls may have originally been roughly 30 cm above the floor but disturbance from construction of the later pit structure, Feature 3262, may have had an impact. Neither the walls nor the floor showed any evidence of being plastered or prepared in any way. The postholes may have held wall support posts.

The subfeatures of this pit structure suggested it may have been remodeled, possibly more than once. Feature 3270.02 was used as a dump for oxidized wattle-and-daub, then capped, before Feature 3270.01, a hearth, was built on it. This hearth was also capped, and another hearth area, Feature 3270.03, was used. These changes may have represented remodeling episodes of the pit structure. No other evidence was found for remodeling of the structure.

### *Stratigraphic Relationships*

This pit structure was built into the alluvial clays of the floodplain. After abandonment, the structure

was at least partially filled with alluvium, colluvium, and cultural trash. Features 3262 and 9168, two other pit structures, intruded on Feature 3270. Two extramural pits, Features 3310 and 3311, were built into the fill of Feature 3270 after abandonment but prior to construction of Feature 3262.

### *Abandonment and Postabandonment*

Heavy oxidation of the floor and the large amount of oxidized daub and charcoal in the fill indicated the superstructure was still in place when the structure burned. Residual utility of the artifacts found on the floor suggested that the structure was not burned intentionally. After burning and collapse of the superstructure, a combination of natural floodplain processes and the dumping of cultural trash filled the structure. Two later extramural pits, Features 3310 and 3311, were constructed, partially intruding the fill of the structure. Sometime after these two pits filled, a later pit structure, Feature 3262, was also constructed into the fill of Feature 3270.

Feature 9168, another pit structure, also intruded on Feature 3270 sometime after its abandonment and filling. The chronological relationship between Feature 9168 and the other intrusive features was unknown.

## **Feature 3273, Pit Structure**

### *Description*

Feature 3273 was discovered during mechanical stripping and was then fully excavated by hand (Figure 4.43). It was a round pit structure that measured about 3.35 m in diameter. Features discovered within the pit structure included a hearth, a floor groove, an intramural pit, and four postholes, as well as two possible postholes and one depression that may have originally been a floor pit. Alignment of the postholes into two rows and the location of the hearth suggest the entry was located in the northeastern quadrant. This structure seems to have been used for habitation, possibly for an extended period of time. The structure burned, and artifacts suggesting a de facto assemblage were found on the floor.

### *Internal Features*

The hearth, Feature 3273.01, was located near the center of the pit structure, skewed slightly to the northeast. Feature 3273.02, a floor groove, ran along the entire circumference of the pit structure. Four



**Figure 4.43.** Feature 3273, a Cienega phase pithouse, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

well-defined postholes, Feature 3273.03-3273.06, and two possible postholes, A and B, were arranged into two rows, running roughly southwest to northeast.

Feature 3273.01 was a round, basin-shaped hearth, 35 cm in diameter, with heavily oxidized edges. A raised, oxidized collar was also present around the rim of the hearth, except in one area disturbed by a rodent burrow. There was no evidence the hearth was plastered. Fill of the hearth consisted almost entirely of gray ash, although some pieces of burned daub and a few small fire-cracked rocks were found in the ash. Also associated with the hearth was an area of ash rake-out on the floor just to the west. The area was an irregularly shaped ash deposit approximately 70 cm long by 60 cm wide.

Feature 3273.02 was a roughly V-shaped floor groove that ran around the entire circumference of the pit structure. Width of the groove varied from about 10 cm to 17 cm. The floor groove was contiguous with the pit edge for three-quarters of the circumference, separating from the edge slightly in the southwestern quadrant. The floor groove was filled by flood silt mixed with burned construction materials. In addition to oxidized daub, pieces of burned upright posts, 3-4 cm in diameter, and burned thatching were found in situ in the floor groove. Artifacts found in the fill of the floor groove included a few pieces of fire-cracked rock, some flaked stone, a seashell, a core, and a piece of ground stone with ochre staining. All the artifacts were confined to the eastern half of the groove.

The four postholes and two possible postholes ranged from 15 cm to 36 cm in diameter and from 22 cm to 37 cm in depth. The postholes were aligned in two rows, running roughly southwest to northeast.

The rows bent together slightly toward the northeast, where the postholes neared the hearth.

#### *Internal Strata and Artifact Contents*

About 19 cm of fill was excavated between the stripped surface and the floor of the pit structure. No discrete strata were discernable, although quantities of burned daub and ash increased in the lower fill. High amounts of charcoal and a few ash lenses were also present in the fill, and their frequency also increased with depth. A 2-cm- to 3-cm-thin layer of compacted silt was present just above the clay floor, perhaps representing an accumulation during use. Patches of the floor were oxidized, with roughly 20 percent of the floor area showing oxidization. The fill of the pit

structure contained high densities of flaked stone and unworked animal bone. Also found in the fill were four pieces of ground stone, a core, two seashells, an ochre lump, and a ceramic figurine fragment. Approximately 70 pieces of fire-cracked rock were found in the fill, most of which were fairly small (less than 5 cm in diameter). The artifact assemblage found on the floor of the pit structure consisted of 2 Cienega style projectile points, 2 metates, 4 cores, 1 hammerstone, a piece of flaked stone, and a separate cluster of flaked stone. A few small pieces of fire-cracked rock were present on the floor. Most of the artifacts that constituted the floor assemblage were concentrated to the east and slightly south of the hearth. The reason for the concentration of artifacts on the eastern side of the pit structure, both in the floor groove and on the floor itself, is unknown.

#### *Construction and Remodeling Evidence*

The two rows of postholes probably represent central support posts for the roofing superstructure, as they are arranged halfway to the wall on either side of the centerline of the pit. The large amount of oxidized daub, as well as the burned thatching and support posts found in the floor groove, are evidence of a wattle-and-daub superstructure.

When excavated, the pit structure walls were about 25 cm above the floor. The walls may have been slightly truncated by mechanical stripping. The walls, floor, and hearth did not appear to be plastered or prepared in any way. The 2-3 cm of compacted silt found above the floor may represent an accumulation during use. No evidence of remodeling for the pit structure was found.

*Stratigraphic Relationships*

This pit structure was built into the alluvial clays of the floodplain. Above the remains of the burned superstructure, the pit structure was filled entirely with flood silt. The structure was not intruded on by any other features, nor did it intrude on any features. Feature 3273 was included in an arc of other pit structures around a central open area.

*Abandonment and Postabandonment*

The layer of compacted silt present on the floor likely accumulated during the use-life of the structure. The residual utility of the artifacts found on the floor suggested burning of this structure occurred before it could be cleaned out and it might not have been intentional. The substantial amount of construction materials found in the fill is evidence the superstructure was probably still intact at the time of burning. Shortly after the superstructure burned and collapsed, the feature filled rapidly with waterborne silts, possibly in a single flooding episode. The absence of alluvial or colluvial clays and cultural trash in the fill of the pit structure seems to support this scenario. Continuing natural floodplain processes then covered the filled structure.

**Feature 3274, Pit Structure***Description*

The northeastern quadrant of Feature 3274 was discovered during mechanical stripping around Feature 3201, a brick pad from the historic-era brickyard. Upon discovery, the overlying brick pad was removed to fully expose the pit structure. An overlying and intrusive pit was found in the southeastern quadrant of the structure, but was left unexcavated. The northern half of Feature 3274 was subsequently excavated by hand.

This pit structure was round and measured 3.1 m in diameter. Four postholes were found within the structure, three near the center of the structure and one near the northwestern edge. The entry was not identifiable, and orientation of the structure could not be determined. Very few artifacts that could possibly be linked to the occupation of the pit structure were found, and no evidence of burning was found.

*Internal Features*

Four postholes were revealed. They measured 12-16 cm in diameter and were 10-12 cm deep. Three of the postholes were clustered near the center of the

pit structure, and the fourth was found on the northwestern edge of the feature. More postholes probably existed previously, but were not preserved. No artifacts were found in any of the postholes.

*Internal Strata and Artifact Contents*

Approximately 28 cm of fill was removed between the stripped surface and the floor. The top 2 cm of fill was flood silt deposited after the feature had been mostly filled through alluvial and colluvial processes and by cultural trash deposition. The flood deposit had no charcoal, although the lower fill contained some small charcoal flecking that increased in concentration with depth. Some oxidized daub was found in the lower fill and was originally thought to be evidence that the superstructure had burned. However, the localization of this daub at the extreme southwestern edge of the excavation suggests the daub came from the pit that intruded into the pit structure. The pit, seen in profile, showed several large chunks of burned daub restricted to the area on which it intruded.

Both the upper and lower fills contained moderate densities of fire-cracked rock and flaked stone and small quantities of unworked bone and sherds. The lower fill also contained two small ceramic figurine fragments and a possible pecking stone. One piece of unworked bone, one piece of flaked stone, and two large fire-cracked rocks were found on the floor of the structure.

*Construction and Remodeling Evidence*

When discovered, the walls of Feature 3274 were found to be at least 28 cm above the floor, although how much they were truncated by mechanical stripping or construction of Feature 3201, the brick pad, is unknown. Neither the walls nor the floor of the pit structure were plastered, or appeared prepared in any way. Except the four postholes, no evidence of the superstructure was preserved.

*Stratigraphic Relationships*

The pit structure was built in the floodplain alluvium, and was filled primarily by both natural and cultural deposition. The remainder of the structure was then filled with waterborne silts in a flooding episode. The unexcavated intrusive pit in the southeastern quadrant of Feature 3274 was built after the pit structure had already been mostly filled. The flood episode occurred later, filling both the intrusive pit and the pit structure with a fine alluvial silt. Feature 3274 is well removed from most other pits and pit structures at the Brickyard locus.

### *Abandonment and Postabandonment*

Very few of the artifacts found seem to be associated with occupation of this pit structure. No evidence of in situ burning was present. The paucity of both artifacts and construction materials suggested curation and scavenging occurred during or after abandonment. The structure was filled through both natural and cultural processes. Natural processes continued to deposit sediment and covered the filled pit of the structure.

### **Feature 3290, Pit Structure**

#### *Description*

Feature 3290 was found during mechanical stripping. After discovery, the western half of the feature was excavated by hand. This pit structure was round and measured about 3.95 m in diameter. No post-holes or other internal features were discovered. No entry was found, and orientation of the pit structure could not be determined. The feature showed no signs of having burned, and no artifacts were found on the floor of the structure.

#### *Internal Features*

No internal features were revealed.

#### *Internal Strata and Artifact Contents*

Less than 5 cm of fill was excavated between the mechanically stripped surface and the floor of this pit structure. The silt fill did not contain any discrete strata. Artifact density was moderate and included 25 pieces of flaked stone, 1 incipient sherd, and 6 other sherds. Fifty-six pieces of fire-cracked rock were found in the fill, 40 of which were less than 5 cm in diameter.

#### *Construction and Remodeling Evidence*

When excavated, the walls of Feature 3290 were less than 5 cm above the floor. It was unknown if the state of the walls was due to lack of preservation or if it resulted from modern activities on the site. The walls of this structure were almost certainly higher when it was constructed. No evidence of the superstructure of this feature remained.

### *Stratigraphic Relationships*

This feature did not intrude on other features, nor was it intruded on by any features. This pit structure was located well to the east of all other pit structures in the project area.

### *Abandonment and Postabandonment*

There was no evidence this structure burned prior to abandonment. Sometime after abandonment, Feature 3290 was filled by silts from a flooding episode. Natural processes continued to deposit sediments that covered the filled pit of the structure.

### **Feature 3293, Pit Structure**

#### *Description*

Feature 3293 was discovered during mechanical stripping and was then completely excavated by hand (Figure 4.44). This pit structure was rectangular with rounded corners. It measured about 2.55 m in length and 2.05 m in width. A utility trench for the modern brickyard cuts this structure along its north-south axis. A plastered hearth was discovered in the floor of the pit structure. No entry was located, and the orientation of the pit structure could not be determined. There was evidence the structure burned, and a possible de facto artifact assemblage was found on the floor.

#### *Internal Features*

Feature 3293.01 was a roughly circular, plastered hearth that measured 26 cm in length, 25 cm in width,



**Figure 4.44.** Feature 3293, an Early Ceramic period or Hohokam pithouse, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

and 8 cm in depth. In cross section, the hearth was basin shaped, with sloping walls on the western edge and vertical walls on the east. Plaster was present on the vertical eastern wall of the hearth and was roughly 2 cm thick. Fill of the hearth was almost pure ash and was collected entirely as a flotation sample.

#### *Internal Strata and Artifact Contents*

Approximately 19 cm of fill was excavated between the stripped surface and the floor. Large amounts of burned daub were present in the fill. Chunks of charcoal, as well as some intact pieces of burned post, were also discovered in the fill. No discrete strata were identified, although daub and charcoal density increased with depth. Artifacts recovered from the fill included pieces of flaked stone, about 60 sherds, and some unworked animal bone. Two pieces of flaked stone, four individual sherds, and two concentrations of sherds were found on the floor.

#### *Construction and Remodeling Evidence*

The high concentration of charcoal and daub indicated the superstructure was of wattle-and-daub construction. The walls of the pit structure extended some 19 cm above the floor, although they may have been slightly truncated by mechanical stripping. Only the hearth was plastered. Neither the walls nor the floor showed any evidence of being plastered or prepared in any way.

#### *Stratigraphic Relationships*

Feature 3293 was of a completely different type and shape of structure than the other structures found in this area. Construction details and the presence of ceramics on the floor suggested that this structure represents a later occupation of the area than the other pit structures. Further, this pit structure was well removed from the other structures at the Brickyard locus.

The eastern half of the structure was slightly intruded on by a later roasting pit, Feature 3287. The roaster barely impacted the top 5 cm of the fill of Feature 3293. Both features were later cut by a utility trench, constructed for a gas line to one of the kilns at the modern brickyard.

#### *Abandonment and Postabandonment*

The large amount of charcoal and burned daub suggested the super-

structure was still intact when the structure burned. Artifacts found on the floor of the structure indicated that the structure was not cleaned out before it burned. However, the artifacts did not possess residual utility and may have been left behind when the structure was abandoned. After the structure burned, the remaining pit was filled by alluvial and colluvial processes. These continuing processes then covered the filled foundation pit.

#### *Date*

A sample of charred mesquite seed provided a radiocarbon date of  $770 \pm 140$  b.p. (uncalibrated  $^{14}\text{C}$  years), which was rejected as too young. The architectural style and associated pottery type suggest this feature dates to the Early Ceramic period (A.D. 50-500) or to a Hohokam period.

### **Feature 3294, Pit Structure**

#### *Description*

Feature 3294 was discovered during excavation of Feature 3264, a later, intrusive pit structure. Feature 3264 was built into the fill of Feature 3294. Excavation of Feature 3294 by hand continued, and it is estimated that about 50 percent of the lower structure was excavated to the floor (Figure 4.45). Only that portion of Feature 3294 under the eastern half of Feature 3264 was excavated. From the portion of the feature that was exposed, it was estimated to have been a round pit structure measuring about 2.5 m in diameter. No entry was discovered, and orientation could not be determined. Features found within the



**Figure 4.45.** Feature 3294, a Cienega phase pithouse, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

structure included 20 postholes and a possible hearth. No artifacts were discovered on the floor, but there was evidence the structure had burned.

#### *Internal Features*

Twenty postholes were revealed in the floor of the pit structure. They ranged in size from 7 cm to 25 cm in diameter and from 4 cm to 16 cm in depth. Seventeen of the postholes were arranged in an arc, just inside what appeared to be the eastern and south-eastern walls of the structure. The remaining three postholes were near the approximate center of the pit structure.

Feature 3294.01 was a small, oxidized possible hearth area roughly 20 cm in diameter and 3 cm deep. The fill was gray-white ash with no artifacts in evidence. It was uncertain if this area represented a hearth due to the presence of a well-defined posthole, posthole M, that lay under the entire western half of the hearth.

Posthole M measured approximately 25 cm in length, 20 cm in width, and 16 cm in depth. The top 2-3 cm of fill of the posthole was sand, while the remaining fill was silt with some cultural trash.

Two scenarios seemed possible. The first was that the posthole was no longer in use when the hearth was placed over it. The second scenario was that the oxidized area of the hearth actually represented where a piece of burning superstructure came in contact with the floor, causing the oxidation. No other evidence was found that would suggest which scenario was correct.

#### *Internal Strata and Artifact Contents*

About 35 cm of fill was encountered between the floor of the upper intrusive feature and the floor of the lower pit structure. The top 20 cm of fill was a mixture of light silts, dark clays, and cultural trash. The next 10 cm of fill was of the same composition but contained large quantities of burned daub and charcoal flecking. This fill showed concentrations of silt toward the center of the structure and concentrations of clay toward the edges. The last 5 cm of fill were heavily oxidized and contained a much larger concentration of clays than the upper fill.

Artifact density in the fill was high. The upper 20 cm contained more than 200 pieces of flaked stone, not including microflakes, and approximately 50 pieces of unworked animal bone. Also recovered from the fill were 3 small cores, a possible hammerstone, 5 pieces of ground stone reused as fire-cracked rock, 2 snail shells, a seashell fragment, a piece of mica, a Cienega style projectile point, 2 ceramic figurine fragments, 5 small incipient plain ware sherds, and a fragment of a bone awl.

For artifact collection, the lower fill was treated as one stratum, roughly 15 cm deep. Flaked stone (255 pieces) and unworked animal bone (87 pieces) were still present in high densities. Other artifacts recovered from this fill included a fragment of seashell, a Cienega style projectile point, seven sherds, and five ceramic figurine fragments. Approximately 280 pieces of fire-cracked rock were discovered in the upper stratum, and some 120 pieces were found in the lower two strata. Most of the fire-cracked rock was less than 5 cm in diameter.

#### *Construction and Remodeling Evidence*

The fact that only a portion of the floor of the pit structure was uncovered made conclusions about details of construction difficult. The walls of Feature 3294 were not easily visible, except one small portion in the extreme south of the feature. Height of the walls was unknown. Eastern and southeastern walls were inferred by the presence of the arc of postholes present in the floor. These probably represented the wall support posts of the superstructure, while the more central postholes represented roof support posts. The existence of a wattle-and-daub superstructure was implied by the large amounts of burned daub present in the fill. The walls, floor, and hearth of the structure did not appear plastered or prepared in any way.

There was no solid evidence for a remodeling of this structure. If Feature 3294.01 was a hearth, it shows that the post that rested in posthole M was removed and support for the roof of the superstructure was adjusted.

#### *Stratigraphic Relationships*

This feature was intruded on by a later pit structure located above it. After Feature 3294 had been mostly or completely filled by alluvial, colluvial, and cultural processes, the later pit structure, Feature 3264, was constructed into the fill. After the upper intrusive structure was filled, both features were later intruded on by Feature 3258, an outhouse pit constructed for the modern brickyard.

#### *Abandonment and Postabandonment*

The layer of clay on the floor suggested Feature 3294 stood abandoned for a time before the superstructure burned. Heavy oxidation of the clay layer and large amounts of daub present in the fill suggested the superstructure was still in place when the feature burned. After the burning and collapse of the superstructure, a combination of natural floodplain processes and the dumping of cultural trash mostly or completely filled the structure. A later pit structure, Feature 3264, was then constructed into the fill

of this feature. During modern use of the area as a brickyard, a pit constructed for use as an outhouse intruded on the northern portion of both the upper and lower pit structures.

### Feature 3296, Pit Structure

#### *Description*

Feature 3296 was discovered during excavation of Feature 3213, a subterranean rail line built by brickyard personnel. Construction of the rail line destroyed the extreme southwestern portion of the structure, and the pit structure was visible in profile in the wall of the rail bed. The area was mechanically stripped to reveal the rest of the structure. The pit structure was then excavated by hand (Figure 4.46).

This structure was roughly circular and measured about 3.4 m in diameter. Eleven postholes, a possible hearth area, and a roasting pit were discovered in the floor. No entry was identified and orientation of the pit structure could not be determined. The structure appeared to have burned, and a possible de facto artifact assemblage was found on the floor.

#### *Internal Features*

Eleven postholes were found on the floor of the pit structure. They ranged in size from 8 cm to 21 cm in diameter and 4 cm to 18 cm in depth. Nine of the postholes were arranged around the interior of the structure wall. Three of the postholes were located about halfway between the wall and the center of the structure. These three postholes, A, I, and K, were also slightly larger than the other nine postholes.



**Figure 4.46.** Feature 3296, a Cienega phase pithouse, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

Feature 3296.01 was an oxidized patch of the floor that may have served as an informal hearth area. The oxidization measured roughly 30 cm in diameter and had no depth. It was located just southeast of the center of the structure.

Feature 3296.02 was an intramural roasting pit that measured 37 cm in length, 36 cm in width, and 10 cm in depth. It became visible on the western side of the structure, just at the level of the floor, which suggested it was an intramural feature. The fill was comprised primarily of fire-cracked rock, although some ash and oxidized soil was present.

#### *Internal Strata and Artifact Contents*

Roughly 14 cm of fill was present between the stripped surface and the floor. The fill consisted of flood silts with some burned daub and charcoal flecking. No discrete strata were discernable in the fill. Artifacts recovered from the fill included some flaked stone, a few sherds, some unworked animal bone, two ground stone fragments, a biface, and a projectile point fragment. Some 200 pieces of fire-cracked rock were discovered, only 18 of which measured more than 5 cm in diameter.

The floor of the structure showed some areas of oxidization. The artifact assemblage found on the floor consisted of a flaked stone scraper, a piece of ground stone, a flake, and a hammerstone.

#### *Construction and Remodeling Evidence*

When excavated, the walls of this structure measured 14 cm above the floor. Neither the walls nor the floor appeared to have been plastered or prepared in any way.

#### *Stratigraphic Relationships*

This structure was built into the alluvial clays of the floodplain. Sometime after its abandonment, the structure filled with silts from a flooding episode. Two prehistoric pits, Features 3313 and 3336, were then constructed through the fill of the structure. Later, both a historic pit, Feature 3341, and a subterranean rail line, Feature 3213, intruded on this structure. The rail line destroyed a small portion in the southwesternmost part of the pit structure.

#### *Abandonment and Postabandonment*

The floor of this structure showed slight oxidization, and only small

amounts of charcoal and burned daub were found in the fill. This suggested the superstructure was only partially intact and/or only partially burned. The few artifacts found on the floor of the structure did not conclusively indicate whether the structure was cleaned out prior to abandonment. After abandonment, the foundation pit of the structure was filled and then covered by continuing alluvial and colluvial processes.

### **Feature 3300, Pit Structure**

#### *Description*

Feature 3300 was found during backhoe stripping. After discovery, the eastern half of the pit structure was excavated by hand. This pit structure was roughly circular and measured about 3.75 m in diameter. A small pit, two possible hearth areas, and a floor groove were revealed in the floor of the excavated portion of this structure. No entry was discovered, and no orientation for the structure could be determined. The structure did not burn, and no artifacts were discovered on the floor.

#### *Internal Features*

No postholes were revealed in this structure.

Feature 3300.01 was a groove in the floor of the structure. The groove varied in width along its length, measuring between 1 cm and 10 cm. It ran through most of the eastern half of the structure, was interrupted by a historic-era pit at its easternmost point, and ended 1.5 m before reaching the unexcavated western half of the structure. When excavated, it was unclear if the groove ended at this point or if it was intruded on by a historic pit originating from the south. Fill of the groove was the same as the fill of the structure. It contained charcoal flecking and small pieces of burned daub. Artifacts recovered from the groove consisted of a few pieces of flaked stone.

Feature 3300.02 was a small circular pit measuring 45 cm in diameter. It was discovered in the northern part of the structure very near the floor groove and structure wall. The small pit contained high amounts of charcoal and burned daub. A few pieces of flaked stone, a mano fragment, and a fragment of a ground stone tray were recovered from the fill.

Feature 3300.03 was an oxidized patch of floor discovered near the center of the structure, lying partially in the unexcavated western half. The visible portion of the oxidization measured roughly 27 cm in length and 15 cm in width. This oxidized area of floor may have been an informal hearth. Feature 3300.03 had no depth, and no artifacts were recovered.

Feature 3300.04 was a second oxidized patch discovered on the floor of the pit structure. It was located just southeast of Feature 3300.03. The oxidization was roughly circular, 20 cm in diameter. This area may represent an informal hearth. It had no depth, and no artifacts were recovered.

#### *Internal Strata and Artifact Contents*

Approximately 11 cm of fill was excavated between the stripped surface and the floor of this pit structure. The fill of the structure consisted of flood silts with small amounts of charcoal, burned daub, and ash. No discrete strata were discernable in the fill. Artifacts recovered from the fill included 42 pieces of flaked stone, 1 sherd, a Cienega style projectile point, and 3 pieces of unworked animal bone. Roughly 60 pieces of fire-cracked rock, 13 of which measured more than 5 cm in diameter, were also discovered in the fill.

#### *Construction and Remodeling Evidence*

When excavated, the walls of this pit structure measured some 11 cm above the floor. The walls may have been slightly truncated by mechanical stripping. No evidence was discovered that the walls or the floor were plastered or prepared in any way.

#### *Stratigraphic Relationships*

Feature 3300 was constructed into the alluvial clays of the floodplain. After abandonment, the foundation pit filled with flood silts and was covered by continuing alluvial and colluvial processes. A historic pit and an outhouse pit were later constructed and intruded on the prehistoric pit structure.

#### *Abandonment and Postabandonment*

The lack of oxidization of the floor of this pit structure suggested that it did not burn. The lack of artifacts on the floor further suggested that the structure was cleaned out prior to abandonment. After abandonment, the structure was filled with silts from a flooding episode, and the filled foundation pit was covered by alluvial and colluvial deposition.

### **Feature 3306, Pit Structure**

#### *Description*

Feature 3306 was discovered during mechanical stripping. The northern half of the feature was then excavated by hand. This feature was a round pit structure measuring 3.85 m in diameter. No internal

features were discovered in the excavated half of the pit structure. No entry was found, and the orientation of the structure could not be determined. The floor showed a small patch of oxidization under a piece of burned daub, but this was the only evidence the structure may have burned. Only fire-cracked rocks were found in contact with the floor.

#### *Internal Features*

No internal features were revealed in the structure.

#### *Internal Strata and Artifact Contents*

Roughly 7 cm of fill was removed between the stripped surface and the floor of the structure. No discrete strata existed in the fill, which was a mixture of flood silts and cultural trash. Some very small pieces of burned daub and charcoal flecking were present, although it is unclear if these originated from this structure. Artifacts discovered within the fill were both historic and prehistoric in age. The historic-era artifacts consisted of glass and metal, while the prehistoric-era artifacts were pieces of flaked stone, a flaked stone core, and three sherds. Eight pieces of fire-cracked rock were found in contact with the floor.

The floor of this structure showed only one small area of oxidization. This occurred beneath a small chunk of burned daub that was resting on the floor. The lack of other oxidized materials made it unclear if this structure had burned. Some mottling suggestive of unburned, decaying daub was found in the fill, implying that if the structure did burn, the burning was only partial.

#### *Construction and Remodeling Evidence*

When excavated, the walls of this structure were found to be approximately 7 cm above the floor. They may have been slightly truncated by mechanical stripping. Neither the walls nor the floor appeared to have been plastered or prepared in any way. Lack of internal features and superstructure materials made further construction details difficult to ascertain.

#### *Stratigraphic Relationships*

The pit structure was built in the floodplain alluvium, and after abandonment, it was filled by waterborne silts in a flooding episode. The excavated northern half was intruded on by a historic pit, Feature 3309. A prehistoric pit, Feature 3307, intruded on the unexcavated southern half of Feature 3306. This pit, a possible thermal feature, was left unexcavated.

Feature 3306 did not intrude on any other features. It was located in close proximity to Feature 3308, another pit structure, and Feature 3298, a possible pit structure.

#### *Abandonment and Postabandonment*

Lack of artifacts suggested the pit structure had been cleaned out prior to abandonment. Very little other evidence existed from which to draw conclusions about the nature of the abandonment. The small patch of oxidization on the floor along with the chunk of oxidized daub indicated the structure may have burned. Lack of other evidence of burning or oxidization suggested that burning, if it occurred, may have only been partial.

Sometime after the structure was abandoned, it was filled by silts from a flooding episode. Continuing natural processes then covered the filled structure.

### **Feature 3308, Pit Structure**

#### *Description*

Feature 3308 was discovered during mechanical stripping, and its southern half was excavated by hand. The northern half of the feature was left unexcavated. This feature was a round pit structure that measured some 3.65 m in diameter. A very shallow pit was found within the structure. No entry was discovered, and the orientation of the pit structure could not be determined. The structure was not burned, and a single artifact was found in contact with the floor.

#### *Internal Features*

Feature 3308.01 was a circular pit discovered just south of the center of this pit structure. It measured about 35 cm in diameter and 6 cm in depth. No artifacts were found within the pit.

#### *Internal Strata and Artifact Contents*

Approximately 10 cm of fill was removed between the stripped surface and the floor. No discrete strata were discernable within the fill, although clay concentration increased with depth. The fill contained some charcoal flecking and small pieces of burned daub. Artifact density was moderate, but decreased with depth. Artifacts discovered within the fill included flaked stone, unworked faunal bone, and sherds. Eighteen pieces of fire-cracked rock measuring more than 5 cm in diameter were found in the fill. One piece of unworked faunal bone and six pieces

of fire-cracked rock were found in contact with the floor.

#### *Construction and Remodeling Evidence*

The walls of this structure were found to be roughly 10 cm above the floor. They may have been slightly truncated by mechanical stripping. Neither the walls nor the floor appeared plastered or prepared in any way. No evidence of the superstructure was preserved.

#### *Stratigraphic Relationships*

This pit structure was built in the floodplain alluvium and was filled with flood silts and some cultural trash. During modern use of the area as a brickyard, an intrusive pit, Feature 3342, was excavated into the northern half of this structure. This pit structure was located just northwest of another pit structure, Feature 3306.

#### *Abandonment and Postabandonment*

No evidence existed to suggest the nature of the abandonment of pit structure Feature 3308. No in situ burning was evident. Lack of construction materials suggested that the superstructure was scavenged or was not preserved. After the structure was abandoned, it was partially filled by alluvial and colluvial clays and cultural trash. A later flooding episode filled the remainder of the foundation pit with silt. Natural floodplain processes subsequently buried the filled feature.

### **Feature 3312, Pit Structure**

#### *Description*

Feature 3312 was discovered during mechanical stripping; the eastern half was then excavated by hand. This pit structure was round and measured about 3.6 m in diameter. No postholes were found, although an oxidized patch of the floor was investigated as a possible hearth area. No entry was discovered and the orientation of the pit structure could not be determined. The structure did not burn. A possible de facto artifact assemblage was found in the excavated half of Feature 3312.

#### *Internal Features*

No postholes were discovered in the structure. A small oxidized patch of floor in the center of the structure was identified as a possible hearth area. The

oxidization measured 30 cm long and 20 cm wide, but had no depth. No artifacts were found in association with this possible hearth.

#### *Internal Strata and Artifact Contents*

Roughly 11 cm of fill was removed between the stripped surface and the floor of the pit structure. No discrete strata were discernable in the fill, but clay content increased with depth. Very small amounts of charcoal flecking and burned daub were present. Artifact density was low and consisted of pieces of flaked stone, some unworked animal bone, and one sherd. About 120 pieces of fire-cracked rock, most less than 5 cm in diameter, were discovered in the fill. Two pieces of ground stone, two pieces of flaked stone, and one piece of unworked faunal bone were found in contact with the floor.

#### *Construction and Remodeling Evidence*

When excavated, the walls of this feature were found to be approximately 11 cm above the floor. The walls may have been slightly truncated by mechanical stripping or by modern activity associated with the brickyard. Neither the walls nor the floor appeared plastered or prepared in any way. No evidence of a superstructure for the feature was discovered.

#### *Stratigraphic Relationships*

This pit structure was built in the floodplain alluvium and was filled by waterborne silts from a flooding episode. It is intruded on by two pit features, Features 3316 and 3319. Feature 3316 was a slab-lined pit that intrudes on the northeastern corner of Feature 3312. Feature 3319 intrudes slightly upon the extreme western edge of Feature 3312. Both Feature 3319 and the western half of the pit structure were left unexcavated.

The structure was located in the extreme northwestern corner of the project area, well removed from most of the other features at the site. However, the areas north and west of the feature were not mechanically stripped and were only tested with trenches.

#### *Abandonment and Postabandonment*

The floor assemblage discovered in the structure suggested it was not cleaned out prior to abandonment. This pit structure did not burn; sometime after abandonment, the structure filled with silts from a flooding episode. Continuing natural processes then covered the filled foundation pit.

## Feature 3323, Pit Structure

### Description

Feature 3323 was discovered during backhoe stripping under a brick pad, Feature 3201, from the modern brickyard. After it was found, the northern half of the pit structure was excavated by hand (Figure 4.47).

The pit structure was roughly circular and measured about 3.8 m in diameter. Only the northern half of the structure was excavated. Nine postholes, three possible postholes, and a hearth were revealed in the floor of the excavated portion of the feature. The floor and walls of the structure appeared to have been plastered. The structure had burned, and a small de facto artifact assemblage was discovered on the floor.

### Internal Features

Nine postholes and three possible postholes were found. They ranged from 7 cm to 30 cm in length, 7 cm to 16 cm in width, and 2 cm to 24 cm in depth. Fire-cracked rock was recovered from posthole A. None of the other postholes contained any artifacts.

Three of the postholes, A, K, and L, were arranged along the central east-west axis of the house and may have represented roof support posts. The other postholes were all arranged around the interior circumference of the structure wall and may have represented wall support posts.

Feature 3323.01 was a roughly circular, highly oxidized hearth, measuring 45 cm in diameter and 10 cm in depth. Only three-quarters of the hearth was excavated, because the feature extended into the



**Figure 4.47.** Feature 3323, a Cienega phase pithouse, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

unexcavated portion of the structure. The fill consisted of silts similar to the fill of the structure and contained fire-cracked rock, small chunks of charcoal, and burned daub. The base of the hearth contained a thin layer of ash. One piece of ground stone was recovered from the fill.

### Internal Strata and Artifact Contents

About 30 cm of fill was excavated between the stripped surface and the floor. Two discrete strata were visible in the fill. The upper 14 cm of fill consisted of flood-deposited silts with some small chunks of burned daub and charcoal. Artifacts recovered from the upper fill included roughly 65 pieces of flaked stone, 28 sherds, some fragmentary unworked animal bone, a shell pendant fragment, and one ceramic figurine fragment.

The lower 16 cm of fill also consisted of flood silts, but was mixed with large amounts of burned daub and charcoal. The daub and charcoal appeared to be the remains of a burned superstructure. Artifacts recovered from this fill included approximately 107 pieces of flaked stone, 12 sherds, some fragmentary unworked animal bone, 2 ground stone fragments, 2 ceramic figurine fragments, and the tip of a projectile point.

The floor assemblage consisted of a metate, two pieces of flaked stone, and two pieces of fire-cracked rock. The metate was discovered partially capping the hearth of the structure, Feature 3323.01.

### Construction and Remodeling Evidence

When excavated, the walls of the pit structure were 25 cm above the floor. They may have been slightly truncated by backhoe stripping, or by construction of the overlying brick pad, Feature 3201.

The large quantities of charcoal and burned daub suggested a superstructure of wattle-and-daub construction. Areas of plaster found on the walls and the floor of the structure suggested both were plastered. No evidence for any remodeling of the structure was discovered.

### Stratigraphic Relationships

This pit structure was constructed into the floodplain alluvium. It is intruded on by Feature 3324, a small pit. During modern use of the area as a brickyard, a large brick pad, Feature 3201, was constructed over the

pit structure. The structure was located in an arc of other pit structures around a central open area.

#### *Abandonment and Postabandonment*

The oxidized floor and walls suggested that Feature 3323 burned. The large amounts of burned daub and charcoal discovered in the fill indicated the superstructure may have been intact when the burning occurred. The few artifacts on the floor suggested the structure may have been at least partially cleaned out prior to abandonment. However, the limited excavation of the structure, as well as the presence of the metate capping the hearth, made this unclear.

After the structure was abandoned, alluvial and colluvial processes filled, then covered, the foundation pit.

#### *Date*

A sample of charred maize provided a radiocarbon date of 2530±50 b.p. (uncalibrated <sup>14</sup>C years), or 790-550 B.C. (calibrated calendar years at the 1-sigma range of probability).

### **Feature 3325, Pit Structure**

#### *Description*

Feature 3325 was found during backhoe stripping. After it was discovered, the southern half of the pit structure was excavated by hand. This pit structure was roughly circular and measured about 3.4 m in diameter. Seventeen postholes and one large intramural pit were revealed in the floor of the excavated portion. No entry was discovered, and no orientation for the structure could be determined. Feature 3325 was constructed in the fill of an earlier pit structure, Feature 3412. Oxidization of the floor and walls showed that the structure burned, but no artifacts were found on the floor.

#### *Internal Features*

Fifteen of the 17 postholes were arranged around the interior circumference of the structure wall (postholes A to O). They ranged in size from 12 cm to 26 cm in length, 10 cm to 29 cm in width, and 6 cm to 29 cm in depth. No artifacts were found in any of the postholes. The remaining two postholes, P and Q, were more centrally located in the southern half of the pit structure, close to the eastern edge of the intramural pit, Feature 3325.01. They ranged in size from 14 cm to 25 cm in length and 20 cm to 29 cm in width, but neither was excavated.

Feature 3325.01 was a large, elliptical pit, measuring 1.52 m in length, 1.03 m in width, and 59 cm in depth. The silt fill of the pit contained large amounts of fire-cracked rock and small amounts of burned daub. Artifacts recovered from the pit included pieces of flaked stone, unworked animal bone, two ceramic figurine fragments, a piece of ground stone, and a clay bead.

#### *Internal Strata and Artifact Contents*

About 14 cm of fill was excavated between the stripped surface and the floor. No discrete strata were visible in the fill. Fire-cracked rock and charcoal flecking were present throughout the fill and increased slightly with depth. Small lenses of ash were visible just above the floor of the pit structure. Very little burned daub was found in the fill of the structure. Artifacts recovered from the fill included pieces of flaked stone, a few sherds, some pieces of unworked animal bone, and one ceramic figurine fragment. No artifacts were recovered from the floor.

#### *Construction and Remodeling Evidence*

The locations of the postholes suggested the posts around the interior circumference of the structure represented wall support posts, while the two central postholes represented roof support posts. Oxidization of the floor and walls showed that the structure burned, but very little evidence remained of the probable wattle-and-daub superstructure. The walls and floor did not appear plastered or prepared in any way. No evidence of remodeling was discovered. The walls of this pit structure may have been slightly truncated by backhoe stripping.

#### *Stratigraphic Relationships*

Feature 3325 was constructed into the filled foundation pit of an earlier pit structure, Feature 3412. It is not intruded on by any other feature. This structure was found in close proximity to an arc of other pit structures arranged around an open central area.

#### *Abandonment and Postabandonment*

This structure appears to have been cleaned out before it was abandoned. Although oxidization of the floor and wall of the structure showed that it burned, the small amounts of burned daub suggested the superstructure either was not intact or was not preserved. Sometime after the structure was abandoned, it was filled with silt from a flooding episode. The filled foundation pit was then covered by alluvial and colluvial processes.

### Date

A sample of charred maize from Feature 3325.01 provided a radiocarbon date of 2500±50 b.p. (uncalibrated <sup>14</sup>C years), or 780-520 B.C. (calibrated calendar years, at the 1-sigma range of probability).

### Feature 3327, Pit Structure

#### Description

Feature 3327 was found during backhoe stripping. After its discovery, the pit structure was completely excavated by hand (Figure 4.48). The pit structure was roughly circular and measured approximately 3.4 m in diameter. Six postholes, a floor groove, a hearth, and two intramural pits were revealed in the floor of the pit structure. An underlying feature, Feature 3357, originally thought to be another earlier pit structure, was found to be an inhumation. No entry was discovered, and the orientation of the structure could not be determined. The structure was burned, and a large de facto artifact assemblage was found on the floor.

#### Internal Features

Six postholes were discovered in the floor of the pit structure. They were all roughly circular and ranged in size from 12-14 cm in length, 12-15 cm in width, and 9-13 cm in depth. The postholes were found arranged in a circle halfway between the center of the pit structure and the wall. They may have represented roof support posts for the superstructure.



**Figure 4.48.** Feature 3327, a Cienega phase pithouse, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

Feature 3327.01 was a roughly circular, highly oxidized hearth with a basin-shaped profile. It was 21 cm in diameter and 6 cm deep. Located just northwest of the center of the pit structure, the hearth was filled with ash. The fill contained no artifacts.

Feature 3327.02 was a floor groove that extended the entire interior circumference of the structure wall. It averaged roughly 20 cm in width and 58 cm in depth, and its outer edge was contiguous with the structure wall for its entire length. Artifacts recovered from the silt fill of the groove included some fire-cracked rock, pieces of flaked stone, unworked animal bone, and a shell. Large chunks of oxidized daub were also found in the floor groove.

Feature 3327.03 was an oval intramural pit, 47 cm long, 36 cm wide, and 11 cm deep. Located just northwest of the hearth, Feature 3327.01, the silt fill of the pit contained no artifacts. This pit intruded on the fill of Feature 3357, the underlying inhumation.

Feature 3327.04 was an oval intramural pit that measured 56 cm in length, 42 cm in width, and 8 cm in depth. It was discovered just northwest of another intramural pit, Feature 3327.03. The fill of Feature 3327.04 was also silt, and it also contained no artifacts.

#### Internal Strata and Artifact Contents

Some 18 cm of fill was excavated between the stripped surface and the floor. The upper 12 cm of fill consisted of alluvial clays and contained small chunks of daub and charcoal flecking. This fill also contained large amounts of fire-cracked rock. Artifacts recovered from the upper fill included pieces of flaked stone, some unworked animal bone, a piece of ground stone, a mano fragment, a flaked stone core, some incipient plain ware sherds, and four intrusive Hohokam sherds.

The lower 6 cm of fill consisted of silt with abundant amounts of oxidized daub and charcoal. Many of the pieces of daub were large, and a few contained impressions of reeds and grasses. Artifacts recovered from the lower fill included pieces of flaked stone, a few utilized flakes, two incipient plain ware sherds, a biface fragment, a shell, three intrusive Hohokam sherds, and a ground stone fragment.

A large artifact assemblage was found on the floor, with most of the artifacts confined to the southern half of the structure. The floor assemblage consisted of 1 large metate, 1 mano, 1 lapstone, 5 hammerstones, 1 utilized piece of flaked stone, and 2 core tools.

*Construction and Remodeling Evidence*

When excavated, the walls of the structure extended 18 cm above the floor. The walls of the pit structure may have been slightly truncated by backhoe stripping. The floor groove, central postholes, and oxidized daub indicated the presence of a superstructure, probably constructed of wattle and daub. Small areas of plaster found on the walls and floor suggested that both were plastered. No evidence existed for any renovation or remodeling of the structure.

*Stratigraphic Relationships*

This pit structure was constructed into the alluvial floodplain. When first excavated, the feature was thought to have been constructed into the fill of an earlier pit structure. The possible existence of a lower house was suggested by redeposited fill found in the bottom and side wall of an intramural pit, Feature 3327.03. Upon further investigation, this fill was found to actually be the fill of an inhumation, Feature 3357. The inhumation had been placed in a sub-floor pit within the pit structure. When excavated, the boundaries of the burial pit were indistinct. One or both of the two intramural pits, Features 3327.03 and 3327.04, may actually represent the top of this burial pit. No other features intruded on this pit structure, nor did it intrude on any other features.

This pit structure is located in an arc of other pit structures arranged around an open central area.

*Abandonment and Postabandonment*

The oxidization of the floor and walls, as well as the large amounts of burned daub found in the fill, indicated the wattle-and-daub superstructure was probably still in place when the structure burned. The large artifact assemblage found on the floor was evidence that the structure was not cleaned out before the burning occurred. After the pit structure was abandoned, a flooding episode deposited silt in the structure. Alluvial and colluvial processes then filled the remainder of the foundation pit. Finally, these continuing processes covered the filled foundation pit.

**Feature 3332, Pit Structure***Description*

This feature was discovered during backhoe stripping under a large brick pad (Feature 3201) constructed for the brickyard. After it was exposed, the northern half of the structure was excavated completely by hand. This pit structure was roughly circular and measured roughly 3.27 m in diameter. Only

the northern half of the structure was excavated. During excavation, Feature 3343, an intrusive pit, and Feature 3413, an underlying pit structure, were discovered. A floor groove was revealed in the floor of the excavated portion of the feature. No entry was discovered, and no orientation for the structure could be determined. Oxidization of the floor and walls suggested the structure burned, but no artifacts were recovered from the floor.

*Internal Features*

No postholes were revealed in the floor of the structure.

Feature 3332.01 was a floor groove that extended for most of the circumference of the northern half of the structure. The groove was contiguous with the wall in the northwestern quadrant of the structure. In the northeastern quadrant, the floor groove was interrupted for about 80 cm before it resumed and continued into the unexcavated southern half of the structure. In the northeastern quadrant, the groove was constructed into the fill of the lower structure, Feature 3413. During excavation, it was unclear if the interruption of the groove was intentional, or if it was simply not preserved in this area.

*Internal Strata and Artifact Contents*

Approximately 13 cm of fill was excavated between the stripped surface and the floor of the structure. The walls were slightly truncated by mechanical stripping, or by construction of the brick pad, Feature 3201. There were no discrete strata visible in the fill. The fill consisted of flood silt with large chunks of oxidized daub and a small amount of charcoal flecking. Fire-cracked rock was present throughout the fill. Artifacts recovered from the fill included abundant amounts of flaked stone, a few sherds, and a few pieces of unworked animal bone. No artifacts were recovered from the floor of the structure.

*Construction and Remodeling Evidence*

Large chunks of oxidized daub with reed impressions were discovered in the fill of the structure. This suggested the probable presence of a wattle-and-daub superstructure. Wall support posts were probably anchored in the floor groove. No evidence was discovered that the walls were plastered or prepared in any way.

*Stratigraphic Relationships*

Feature 3332 was partially constructed into the fill of an earlier pit structure, Feature 3413. The eastern one-third of the upper pit structure was constructed

into the western third of the lower. Sometime after the upper structure was abandoned, it filled with silt from a flooding episode. An intrusive pit was later constructed through the fill of both the upper and lower structures. Feature 3332 was in close proximity to an arc of other pit structures arranged around a central open area.

#### *Abandonment and Postabandonment*

The presence of oxidized daub, as well as evidence of oxidization on the floor and walls, suggested this structure burned. The lack of artifacts on the floor indicated that the structure was likely cleaned out before it burned. After it was abandoned, the structure filled with silts from a flooding episode. An intrusive pit, Feature 3343, was constructed through the filled foundation pit. Both features were then covered by alluvial and colluvial deposits.

### **Feature 9168, Pit Structure**

#### *Description*

Feature 9168 was first discovered in the profile of backhoe Trench 33. It was then uncovered during mechanical stripping and fully excavated by hand (Figure 4.49; see also Figure 4.42). This round pit structure measured approximately 3.8 m in diameter. Six postholes, a hearth, and a floor groove were exposed inside the pit structure. No entry was discernable, and the pattern of postholes was interrupted by the backhoe trench; therefore, orientation of the structure could not be determined. There was no evidence the pit structure burned. A small assemblage of artifacts was found spread across the floor.

#### *Internal Features*

Six postholes were discovered in the floor of the feature. Their measurements ranged from 12 cm to 18 cm in diameter and from 12 cm to 29 cm in depth. Five were discovered north of the backhoe trench that ran through the pit structure. These were arranged in an arc lying halfway between the pit edge and the center of the structure. Unworked animal bone was discovered in the fill of one of the postholes, Feature 9168.03. Only one additional posthole was discovered south of the trench.

Feature 9168.01 was a roughly circular, basin-shaped hearth. It was

located just east of the center of the structure. Feature 9168.01 was 52 cm long, 44 cm wide, and 8 cm deep. Some oxidization was present in the bottom of the hearth, although there was evidence the feature had been disturbed by rodent turbation. The fill was light clayey silt with small lenses of fine gray ash. A small ovoid lens of ash, measuring 12 cm by 10 cm, was discovered on the floor of the structure just northwest of the hearth. This ash may have represented rake-out from the hearth.

Feature 9168.02 was a floor groove around the interior circumference of the pit structure. The width of the feature varied between roughly 10 cm and 24 cm, and its depth was about 24 cm below the level of the floor. It ran the entire circumference of the structure, except where it had been disrupted by the backhoe trench. North of the backhoe trench, the groove was mostly contiguous with the walls of the pit structure, separating in only two places. South of the trench, the groove was not contiguous with the structure wall anywhere along its length, sometimes separated by as much as 36 cm. The fill of this feature was a mixture of light silts and dark clays. Pieces of flaked stone and unworked animal bone were recovered from the feature. Also present were roughly 40 pieces of fire-cracked rock.

#### *Internal Strata and Artifact Content*

Approximately 21 cm of fill was excavated between the stripped surface and the floor of the pit structure. The upper 12 cm of fill was a light clayey silt with some charcoal flecking and pieces of daub. A few of the pieces of daub were slightly oxidized, but most were unburned. The lower 9 cm of fill was a mixture of light silts and dark clays. Charcoal flecking



**Figure 4.49.** Feature 9168, a Cienega phase pithouse, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

increased with depth, as did the concentration of daub, most of which was unburned. The floor of the pit structure was not burned.

Pieces of flaked stone and animal bone were recovered from both strata of the fill. The upper fill also contained two sherds, a core, a seashell, and a snail shell. The lower fill also contained a seashell. The density of fire-cracked rock was higher in the upper fill ( $n = 233$ ) than in the lower ( $n = 101$ ). A few pieces of flaked stone, some unworked animal bone, and two hammerstones were discovered spread across the floor. Twelve pieces of fire-cracked rock were also found in contact with the floor.

#### *Construction and Remodeling Evidence*

The floor groove probably represented the remnants of the wall support for the superstructure. The more central location of the postholes in the floor indicated they were possibly roof support posts. High amounts of daub present in the fill show that the superstructure was one of wattle-and-daub construction. The structure displayed no evidence of having been burned, and elements of the superstructure may have been scavenged after abandonment, or simply were not preserved.

When excavated, the walls extended 21 cm above the floor, although the walls may have been truncated by mechanical stripping. None of the surfaces or features in the structure appeared to have been plastered or prepared in any way. No evidence of remodeling for the pit structure was found.

#### *Stratigraphic Relationships*

This pit structure was built into the alluvial clays of the floodplain. After abandonment, the foundation pit was used to dump cultural trash and was partially filled by alluvial and colluvial processes. Feature 9168 intrudes into an earlier pit structure, Feature 3270. The northeastern quadrant of Feature 9168 was constructed into the fill of the southwestern quadrant of Feature 3270. It is not intruded on by any feature.

This pit structure lies in an arc of pit structures arranged around a central open area.

#### *Abandonment and Postabandonment*

Artifacts on the floor and ash left in the hearth suggested the feature was not cleaned out during abandonment. The structure did not burn, and it was unclear if the superstructure was scavenged after abandonment or if it was not preserved. This feature was primarily filled with alluvial deposits, colluvium, and cultural trash. A later flood episode filled the

remainder with silt. The filled structure was eventually covered by continuing floodplain processes.

### **Feature 9357, Pit Structure (A "Bighouse")**

#### *Description*

Feature 9357 was first discovered in backhoe Trench 112 during earlier testing of the site, and it was recorded as Feature 357. During subsequent excavation, the feature was completely exposed using mechanical stripping and rerecorded as Feature 9357. After it was exposed, the structure was completely excavated by hand (Figure 4.50).

This pit structure was circular and measured roughly 5.25 m in diameter. The feature was unusual in that it was significantly larger than any other pit structure discovered at the site. A plastered hearth, three large postholes, and three smaller possible postholes were discovered in the floor. A possible entryway was exposed in the southwestern quadrant of the structure that suggested it was oriented in that direction. Two inhumations and a gas pipe utility trench intruded on the eastern portion of the structure. The structure had burned, and a possible de facto artifact assemblage was recovered from the floor.

#### *Internal Features*

All the internal features discovered in the floor were in the southwestern quadrant of the pit structure. Feature 9357.01 was a plastered hearth with a raised, plastered collar. It measured 50 cm in length, 44 cm in width, and 9 cm in depth. Both the margins of the hearth and the collar itself showed signs of intense oxidization. The fill of the hearth was ashy silt overlying a layer of pure white ash. Artifacts recovered from the fill consisted of six pieces of flaked stone and 12 pieces of fragmentary unworked animal bone. Four pieces of fire-cracked rock were also found, but were not collected. The hearth was located southwest of the center of the structure.

Feature 9357.02 was a large posthole that measured 40 cm long, 38 cm wide, and 63 cm deep. It was located almost directly in the center of the structure. The size and location of the posthole suggested that it represented the central support post of the structure. A fragment of in situ burned post was collected from the posthole.

A possible entryway was exposed in the southwestern quadrant of this pit structure. It was represented by a slightly raised area of extremely compacted silty clay that measured about 1.3 m in length and 90 cm in width. It extended from the wall to



**Figure 4.50.** Feature 9357, a Cienega phase “bighouse,” Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

roughly one-third the distance to the central post. The area may have represented a small earthen ramp or step used when entering or exiting the structure. Further evidence that this may have served as an entrance was provided by the presence of two postholes, Features 9357.03 and 9357.04, on either side of the area.

Feature 9357.03 was a posthole that measured 25 cm in length, 24 cm in width, and 28 cm in depth. It was located at the northeastern corner of the possible entryway.

Feature 9357.04 was a posthole that measured 32 cm long, 26 cm wide, and 57 cm deep. It was located at the northwestern edge of the possible entryway.

The location of these two postholes, Feature 9357.03 and Feature 9357.04, suggested they served as roof support posts, perhaps on either side of an egress to the structure. Except the central support post, Feature 9357.02, postholes were not found in any other quadrant of the structure. These postholes, along with the location of the hearth and the discovery of the redeposited clay, suggested the possibility that this area served as an entrance to the pit structure.

Posthole A was a roughly circular posthole that measured 15 cm in length, 13 cm in width, and 9 cm in depth. It was located 5 cm northwest of the hearth and contained the same ashy silt fill as the hearth. The location of posthole A suggested it may have served a function related to the hearth.

Posthole B was a slightly oval posthole that measured 29 cm in length, 23 cm in width, and 9 cm in depth. It was located halfway between Feature

9357.03 and Feature 9357.04, just under the edge of the clayey deposit thought to represent the entryway. Its function was unclear, although it may represent something associated with construction or possible remodeling of the entryway.

Posthole C was a slightly oval posthole, 17 cm long, 12 cm wide, and 6 cm deep. It was located just northwest of Feature 9357.04. Its function was unclear, although it may represent something associated with construction or possible remodeling of the entryway.

#### *Internal Strata and Artifact Contents*

Approximately 58 cm of fill was excavated between the stripped surface and the floor. Two discrete strata were identified in the fill of the structure. The upper 40 cm of fill was composed of mottled clay and silt with large quantities of fire-cracked rock. Over 1,500 pieces of fire-cracked rock were discovered in the upper fill, over 400 of which were greater than 5 cm in diameter. The density of artifacts in this stratum was also high. Artifacts in the fill consisted of about 260 pieces of flaked stone, 30 sherds, more than 700 pieces of unworked animal bone, 9 flaked stone cores, 48 ground stone fragments, 2 pecking stones, a hammerstone, a mano, a Cienega style projectile point, a possible spindle whorl, and a human tooth. A few small pieces of burned daub and some light charcoal flecking were also present in the upper fill.

The lower 18 cm of fill consisted of silt mixed with large quantities of roof/wall fall. The density of oxidized daub and charcoal flecking increased as the density of fire-cracked rock dropped off sharply. Less than 300 pieces of fire-cracked rock were present in the lower fill, of which only 57 measured more than 5 cm in diameter. Some of the larger pieces of oxidized daub contained reed and grass impressions, and a few were collected. Larger pieces of charcoal and some small lenses of ash were also noted in the lower fill.

Artifacts recovered from the fill consisted of 198 pieces of flaked stone, 14 sherds, approximately 150 pieces of unworked animal bone, 3 ground stone fragments, 3 pieces of incipient plain ware sherds, a shell, a Cienega style projectile point, and 1 flaked stone core.

Twenty pieces of human bone were recovered from the lower fill, concentrated in the extreme eastern side of the structure. These human bone fragments, as well as the human tooth from the upper fill, were thought

to have come from the two inhumations that intruded on the eastern edge of the structure.

A floor assemblage was also discovered, confined primarily to the southwestern quadrant of the structure, near the possible entryway. The assemblage included 6 flaked stone scatters, a piece of ground stone, 1 fragmentary piece of unworked animal bone, 2 flaked stone cores, and 4 hammerstones. Pieces of several burned posts were also exposed on the floor, and samples were collected.

#### *Construction and Remodeling Evidence*

When excavated, the walls of the structure were about 55 cm above the floor. The walls of the structure may have been slightly truncated by mechanical stripping, but their condition seemed to suggest they were primarily intact. In addition to being larger in diameter, this structure was also significantly deeper than any of the other structures discovered at the site.

The construction details of the pit structure were very well preserved. Plaster was visible on much of the floor and over half the length of the wall. Plaster preservation on the wall was damaged primarily by intrusive features, such as the two inhumations and the backhoe trench. Wall plaster preservation allowed details of the construction to be observed. The foundation pit for the structure appeared to have been excavated, then the walls backfilled slightly before the plaster was applied. The pit was excavated into the alluvial clays of the floodplain, with the walls bell-shaped slightly toward the base. Between 3-5 cm of silty clay fill was placed against the foundation pit edge, preserving the bell shape of the wall. A 1-m- to 2-m-layer of plaster was applied to the fill, again having preserved the bell shape of the original construction. The plaster appeared to be composed of a single layer, and multiple episodes of plastering were not obvious. A few small areas of the wall plaster contained impressions that may have been formed by wall support posts placed against it. The wall plaster and the fill behind it showed signs of oxidization.

The plaster on the floor of the structure was found in a similar state of preservation as the walls. It also seemed to be from a single episode of plastering that was placed directly on the floor of the constructed foundation pit without any fill between. The hearth of the structure was similarly plastered, with a raised, plastered collar around its circumference. Much of the intact plaster on the floor displayed oxidization. Postholes showed up plainly in the plastered floor. The lack of other postholes in the floor beyond those discovered suggested that any other wall support posts were anchored in the bell of the pit walls or in the ground outside the foundation pit.

The compact clay deposit found in the southwestern quadrant of the structure indicated this area may have functioned as an entryway. Postholes discovered on either side of this deposit seemed to suggest roof support posts that reinforced the area around an opening in the superstructure.

It was unclear if the structure had undergone any episodes of remodeling. The redeposited fill behind the wall plaster may have indicated an episode of remodeling, or it may have been an original detail of construction. The single layer of wall and floor plaster suggested it was applied in one episode of construction. Whether the plaster represented an original feature or a remodeling of the structure was unknown. The only other evidence for a possible remodeling were postholes B and C. These two postholes may have served as roof supports around a possible entryway previous to the placement of post-hole Features 9357.03 and 9357.04.

#### *Stratigraphic Relationships*

This pit structure was constructed into the alluvial floodplain. It did not intrude on any other feature. The Feature 9357 structure was intruded on by two inhumations, Features 3267 and 3268. These inhumations intruded on the extreme eastern edge of the structure sometime after the foundation pit was filled. It was thought that the elements of human bone recovered from the structure came from these inhumations. In more modern times, construction of a gas line for the scove kiln at the brickyard also cut through a portion of the eastern half of the structure. The gas line trench intruded less than 15 cm into the top fill of the structure.

This pit structure was located near a small cluster of other structures to the east, and the possible entryway looks toward another larger cluster of structures to the southwest.

#### *Abandonment and Postabandonment*

Oxidization found on the wall and floor plaster, as well as the large amounts of oxidized daub, indicated that the structure burned. The type of artifacts discovered on the floor suggested it had been at least partially cleaned out before it burned. Sometime after the structure burned, a flooding episode deposited silt in the foundation pit of the structure, filling it partially. The remainder of the structure was filled by alluvial and colluvial processes. These continuing processes later covered the filled foundation pit. After the structure had filled, two intrusive inhumations were constructed through the fill. During more modern times, construction of the gas line for the brickyard also intruded on the filled structure.

### Date

A sample of charred maize provided a radiocarbon date of 2620±40 b.p. (uncalibrated <sup>14</sup>C years), or 820-790 B.C. (calibrated calendar years at the 1-sigma range of probability). Another sample of maize that yielded a radiocarbon date of 2010±40 b.p. was rejected because it is a statistical outlier from all other radiocarbon dates on prehistoric features from the Brickyard locus.

### Feature 9372, Pit Structure

#### Description

Feature 9372 was originally discovered in the profile of backhoe Trench 114. The entirety of the feature was then exposed through mechanical stripping and excavated by hand (Figure 4.51). This feature was a round structure measuring some 4.09 m in diameter. Forty-six postholes and one intramural pit were found inside the structure. No entry was identifiable, and orientation of the pit structure could not be determined because the backhoe trench interrupted the posthole pattern. The structure burned, and a small, possibly de facto artifact assemblage was found on the floor. This feature was probably the remains of a habitation.

#### Internal Features

Forty-six postholes were revealed in the floor. They ranged in size from 10 cm to 34 cm in diameter and 5 cm to 53 cm in depth. Forty-three of the post-

holes were arrayed around the interior circumference of the pit structure. The remaining three postholes were evenly spaced along a line running just south of the center of the pit structure. A flake was collected from one of the postholes, Feature 9372.02, and part of a burned post was removed from another posthole, Feature 9372.03.

Feature 9372.01 was an irregularly shaped pit with some slight oxidation on the bottom. The pit measured 42 cm in length, 36 cm in width, and 15 cm deep. It was located slightly west of the center of the pit structure. It is unlikely that this was a hearth, as the oxidization was only slight, and no ash was found in the fill.

#### Internal Strata and Artifact Contents

Approximately 19 cm of fill was excavated between the stripped surface and the floor of the pit structure. The fill was flood silt mixed with large amounts of heavily oxidized daub. Both daub and charcoal were present at the top of the fill and increased in concentration toward the floor. A patchy charcoal lens about 1-2 cm thick was present above the floor. The floor of the pit structure showed areas of oxidation.

The fill contained flaked stone, unworked animal bone, two pieces of ground stone, a pecking stone, and a Cienega style projectile point. Approximately 231 pieces of fire-cracked rock were found throughout the fill, with only 24 pieces over 5 cm in diameter. No fire-cracked rock was found on the floor. Four pieces of flaked stone, one flaked stone tool, and a biface were found on the pit structure floor. The entire floor assemblage, except one flake, was clustered in the extreme southern end of the pit structure.

#### Construction and Remodeling Evidence

The high concentrations of charcoal and daub indicated the superstructure was of wattle-and-daub construction. The walls of the pit structure extended at least 19 cm above the floor, although they may have been slightly truncated by mechanical stripping. Neither the walls nor the floor showed evidence of being plastered or prepared in any way. The postholes may have held wall support posts, although it is unknown if they were all in use at the same time. Other than the large number



**Figure 4.51.** Feature 9372, a Cienega phase pithouse, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

of postholes, there was no evidence the pit structure was remodeled.

#### *Stratigraphic Relationships*

This pit structure was constructed into the alluvial clays of the floodplain. After the superstructure burned and collapsed onto the floor, the feature filled with flood silt. Feature 9372 intrudes on an earlier extramural pit, Feature 3269, located just to the north. Feature 373, an additional extramural pit, was discovered in the trench profile just east of the pit structure. Both pits were left unexcavated. Feature 9372 was in an arc of pithouses arranged around a central open area.

#### *Abandonment and Postabandonment*

The small number of artifacts on the floor suggested the pit structure may have been cleaned out before it burned. However, high concentrations of charcoal and daub showed that the superstructure was still in place when the burning occurred. Shortly after the structure burned, the feature filled rapidly with waterborne silt.

### **Feature 9376, Pit Structure**

#### *Description*

This feature was first discovered in profile in backhoe Trench 114 during earlier testing of the site and was recorded as Feature 376. During subsequent excavation, what remained of the structure was uncovered by backhoe stripping under drying racks from the brickyard, Feature 3205, and was renumbered as Feature 9376. Construction of the drying racks severely impacted the pit structure so that only a small portion remained intact immediately south of Trench 114. Any part of the feature north of the trench had been destroyed. The structure was further impacted when a utility trench for the gas line of the brickyard scove kiln was excavated through it.

The remaining portion of this pit structure measured about 1.75 m in length and 1.50 m in width. The outline of the walls suggested that, when constructed, the pit structure was probably rectangular with rounded corners. Two postholes were exposed within the floor of the structure, one of which was impacted by the gas line trench. No entry was discovered, and the orientation of the structure could not be determined. The structure appeared to have burned. Only one artifact was found in contact with the floor.

#### *Internal Features*

Two postholes were revealed in the floor of the structure. Feature 9376.01 was a circular posthole, 20 cm in diameter and 28 cm deep. Feature 9376.02 was a circular posthole, 15 cm in diameter and 16 cm deep.

#### *Internal Strata and Artifact Contents*

Approximately 13 cm of fill was excavated between the stripped surface and the floor of the structure. No discrete strata were discernable in the fill. The fill consisted of silt mixed with large concentrations of oxidized daub, and it contained very few artifacts. Artifacts consisted of a few pieces of flaked stone and two sherds. Only one artifact, a possible flaked stone tool, was found on the floor, along with a scatter of fire-cracked rock.

#### *Construction and Remodeling Evidence*

The large amounts of oxidized daub suggested the existence of a wattle-and-daub superstructure. The two postholes probably represent support posts for this superstructure. Little can be said about the walls due to the severe impact of brickyard construction. The remaining wall portions and the floor did not appear to be plastered or prepared in any way.

The outlines of the walls of this structure suggested it may have been rectangular in shape. Only one structure at the site, Feature 3293, was rectangular in shape, and it appeared to date from a later period than the circular pit structures. Due to the severe disturbance to the pit structure, it was impossible to definitively determine its original shape.

#### *Stratigraphic Relationships*

This structure was built into the alluvial floodplain. It did not intrude on any other features. The structure was intruded on by the drying racks from the brickyard, Feature 3205, a gas pipe utility trench, and backhoe Trench 114.

#### *Abandonment and Postabandonment*

The abundant amounts of oxidized daub and patchy oxidization on the floor suggested it had burned. The lack of artifacts on the floor seemed to indicate that the structure was cleaned out prior to abandonment. Sometime after it was abandoned, the structure filled with flood silts. Continuing alluvial and colluvial processes then buried the filled foundation pit. Later construction at the brickyard severely impacted what remained of the buried structure.

## PREHISTORIC PITS

### Feature 3221, Pit

This small, basin-shaped pit was discovered during mechanical stripping. It measured 1.20 m in length, 1.12 m in width, and 9 cm in depth. Fill of the pit was tan silt with small pieces of charcoal, burned daub, and some fire-cracked rock. The margins of the pit were not oxidized. Artifacts recovered from the fill included six pieces of flaked stone, a fragment of ground stone, and a few pieces of animal bone.

### Feature 3222, Pit

This small circular pit was discovered during mechanical stripping and was subsequently completely excavated by hand. It measured 70 cm in length, 68 cm in width and 19 cm in depth. Upper fill of the pit was tan silt, while the lower fill was brown silty clay. Small charcoal flecks, pieces of fire-cracked rock, and burned daub were present throughout both strata. Six pieces of flaked stone were recovered from the fill.

### Feature 3223, Pit

This small circular pit, discovered during mechanical stripping, had straight walls and a flat bottom. It was 84 cm long, 82 cm wide, and 21 cm deep. The fill was brown silty clay with a few flecks of charcoal and some small gravels. Artifacts recovered from the fill included five small sherds and four pieces of flaked stone. Small patches of oxidization and charcoal were visible in the margins of the pit.

### Feature 3225, Pit

This small ovate pit was originally identified as part of the remains of Feature 355, a historic-era structure during backhoe trenching in 1995 (Thiel 1995). When the historic structure was excavated, it was found to be intrusive to this small prehistoric pit. The intrusive structure destroyed the upper part of the eastern margins of the pit.

Feature 3225 measured 1.03 m in length, 45 cm in width, and 45 cm in depth. The profile of the pit was basin shaped. Fill was a highly compacted brown silty clay with small pieces of charcoal and burned daub. The western margin of the pit was highly oxidized. Artifacts recovered from the fill included pieces of flaked stone and a few ground stone fragments. Several small fire-cracked rocks were also noted in the fill, but were not collected.

### Feature 3229, Pit

This small circular pit was discovered during mechanical stripping. Another small pit, Feature 3358, intruded on its western side. Only the southern half of the pit was excavated, but the projected dimensions of the pit were 88 cm long, 83 cm wide, and 12 cm deep. Fill of the pit was tan silt that did not contain any artifacts. A fragment of a metate was recovered from the base of the southern half of the pit.

### Feature 3237, Pit

This small circular pit was discovered during mechanical stripping. The backhoe impacted the upper portion of the pit, which measured at least 12 cm higher than the level at which it was discovered. A large metate fragment, three mano fragments, and a hammerstone were recovered from the impacted upper portion of the pit. The remaining in situ portion of the pit measured 44 cm in length, 40 cm in width, and 10 cm in depth.

Fill of this remaining portion of the pit was grayish-brown silty clay with some charcoal flecking and small pieces of fire-cracked rock. Margins of the pit did not appear to be oxidized. Artifacts recovered from the in situ fill included an additional fragment of a metate and one piece of flaked stone. This second metate fragment was found resting on the bottom of the pit.

### Feature 3238, Pit

This small circular pit was discovered during mechanical stripping, and the eastern half was excavated by hand. The pit was basin shaped in profile, and it measured 1.31 m in length, 1.12 m in width, and 37 cm in depth. Fill was grayish-tan silty clay that increased in clay content toward the base of the pit. Large quantities of charcoal, burned daub, and fire-cracked rock were present in the fill. Artifacts recovered from the fill included six pieces of animal bone, a fragment of ground stone, and about 30 pieces of flaked stone. A few snail shells were also recovered.

### Feature 3240, Pit

This small pit was discovered during mechanical stripping, and the northern half was then excavated by hand. It was circular in shape, and was 92 cm long, 90 cm wide, and 22 cm deep. The fill consisted of uniform grayish-brown silt with large

quantities of burned daub and fire-cracked rock also present. A few pieces of flaked stone and animal bone were the only artifacts recovered from the fill of the pit.

#### **Feature 3241, Pit**

This small circular pit was discovered during mechanical stripping, and the southern half was then excavated by hand. The pit was basin shaped in profile, and measured 65 cm in diameter and 16 cm in depth. The fill of the pit was grayish-brown silty clay with small pieces of charcoal and unburned daub. The only artifact recovered from the fill was a single piece of flaked stone.

#### **Feature 3242, Bell-shaped Pit**

This bell pit was discovered during mechanical stripping, and the southern half of the pit was then excavated by hand. The pit measured 90 cm in length and 88 cm in width at its top. The 46-cm-deep pit had a basal length of 95 cm and an inferred basal width of 93 cm. The fill was grayish-brown silty clay, with small pieces of charcoal, burned daub, and fire-cracked rock throughout. Small patches of oxidization were visible on the margins of the pit. Artifacts recovered from the fill of the feature included pieces of flaked stone, some animal bone, and a few pieces of shell.

#### **Feature 3243, Pit**

This small pit was discovered during mechanical stripping, and the southern half was then excavated by hand. The pit was irregularly shaped, and measured 67 cm in length, 53 cm in width, and 12 cm in depth. The fill was highly compacted tan silty clay with no artifacts.

#### **Feature 3244, Pit**

This small circular pit was discovered during the excavation of a pit structure, Feature 3220, into which it intruded. The pit measured 90 cm in length and 80 cm in width. Only the portion of Feature 3244 that intruded on Feature 3220 was excavated, so the depth remained unknown. Fill of the pit was dark brown clay with some charcoal and numerous fragments of fire-cracked rock. Any artifacts present were collected with the fill of the pit structure and listed as mixed.

#### **Feature 3248, Pit**

This small circular pit was discovered during mechanical stripping, and the southern half was then excavated by hand. The pit measured 76 cm in length, 72 cm in width, and 13 cm in depth. The fill was grayish-brown silty clay with no artifacts.

#### **Feature 3249, Pit**

The northern half of this small circular pit was excavated by hand. The pit was 86 cm long, 78 cm wide, and 12 cm deep. Fill of the pit was gray-brown silty clay with 90 pieces of fire-cracked rock over 5 cm in diameter. The margins of the pit were oxidized. No artifacts were recovered from the fill of the feature.

#### **Feature 3252, Pit**

This small oval pit was discovered during mechanical stripping, and the southern half was then excavated by hand. The pit was basin shaped in profile, and measured 88 cm in length, 74 cm in width, and 17 cm in depth. The fill was uniform grayish-brown silty clay with no artifacts.

#### **Feature 3253, Pit**

This small circular pit was discovered during mechanical stripping, and the southern half of the feature was then excavated by hand. The pit measured 78 cm in length, 56 cm in width, and 20 cm in depth. The fill was tan silt with five pieces of fire-cracked rock over 5 cm in diameter. Ten pieces of flaked stone were also collected from the fill.

#### **Feature 3261, Pit**

This small circular pit was discovered during mechanical stripping, and the western half was then completely excavated by hand. It was basin shaped in profile and measured 88 cm in length, 83 cm in width, and 25 cm in depth. The fill was tan silt with a few small pieces of fire-cracked rock and burned daub. A single piece of flaked stone was the only artifact recovered from the fill.

#### **Feature 3263, Pit**

This small oval pit was discovered during mechanical stripping, and the northern half was then

excavated by hand. It was basin shaped in profile and measured 1.1 m in length, 62 cm in width, and 23 cm in depth. The fill was brown silty clay with a few small pieces of fire-cracked rock. The margins of the pit did not appear oxidized. Artifacts recovered from the fill included sherds and pieces of flaked stone.

#### **Feature 3266, Pit**

This small circular pit was discovered during mechanical stripping, and the northern half was then excavated by hand. It had straight side walls and a flat base. The pit measured 82 cm in length, 74 cm in width, and 13 cm in depth. The fill was tan silt with some dark brown clay mottling. Charcoal flecking was present in the upper portion of the fill. Artifacts recovered from the fill included pieces of flaked stone and some animal bone. Eleven pieces of fire-cracked rock were also noted in the fill, but were not collected.

#### **Feature 3272, Bell-shaped Pit**

This bell pit was discovered during mechanical stripping, and was then completely excavated by hand. The pit was 86 cm long, 74 cm wide at the top, and 64 cm deep. The basal length was 89 cm, and the basal width was 85 cm. The fill was dark brown silty clay with over 160 pieces of fire-cracked rock greater than 5 cm in diameter. The margins of the pit were heavily oxidized. Artifacts recovered from the fill included pieces of flaked stone, a few fragments of ground stone, some animal bone, and a small piece of burned maize cob.

#### **Feature 3284, Pit**

This small circular pit was discovered during mechanical stripping, and the northern half was then excavated by hand. It was basin shaped in profile, and measured 96 cm in diameter and 13 cm in depth. The fill was brown silty clay with a few small pieces of fire-cracked rock. The margins of the pit did not appear to be oxidized. Artifacts recovered from the fill included a few pieces of flaked stone and a flaked stone core.

#### **Feature 3285, Pit**

This small circular pit was discovered during mechanical stripping, and the northern half was then excavated by hand. It was basin shaped in profile,

and measured 60 cm in diameter and 13 cm in depth. The fill was brown silty clay with darker pockets of compacted clay scattered throughout. Artifacts recovered from the fill included pieces of flaked stone and animal bone.

#### **Feature 3287, Roasting Pit**

This irregularly shaped roasting pit was discovered during mechanical stripping. Much of the top of the feature was stripped away before it was noted. The roasting pit was intrusive to the fill of Feature 3293, a rectangular pit structure. The in situ portion of Feature 3287 measured 90 cm in length, 62 cm in width, and 5 cm in depth. The fill was dark brown silty clay with numerous pieces of fire-cracked rock. Approximately 58 pieces were recovered from the small in situ portion of the feature. Soil around the margins of the roasting pit showed some light oxidation. Artifacts recovered from the fill included 23 sherds, four pieces of flaked stone, and a single piece of animal bone.

#### **Feature 3288, Pit**

This small ovate pit was exposed during mechanical stripping, and the southern half of the feature was then excavated by hand. It was basin shaped in profile, and it was 1.44 m long, 10 cm wide, and 14 cm deep. The fill was dark brown silty clay with 15 pieces of fire-cracked rock greater than 5 cm in diameter. Artifacts recovered from the fill included a few sherds and pieces of flaked stone.

#### **Feature 3289, Pit**

This small circular pit was discovered during mechanical stripping, and the northern half was then excavated by hand. It was basin shaped in profile, and measured 1.06 m in length, 99 cm in width, and 3 cm in depth. The fill was dark brown silty clay with approximately 30 pieces of fire-cracked rock measuring less than 5 cm in diameter. Artifacts recovered from the fill included sherds and pieces of flaked stone.

#### **Feature 3295, Pit**

This small oval pit was discovered during excavation of Feature 3260, a pit structure near the eastern edge of the pit. The western half of Feature 3295 was excavated by hand. It was basin shaped in profile, and

measured 90 cm in length, 82 cm in width, and 17 cm in depth. The fill was dark brown clay, with abundant small pieces of charcoal throughout. A few pieces of fire-cracked rock less than 5 cm in diameter were noted, but not collected. Neither the walls nor the base of the pit showed any signs of oxidization. Artifacts recovered from the fill included pieces of flaked stone and animal bone.

#### Feature 3313, Roasting Pit

This small circular roasting pit was discovered during excavation of a pit structure, Feature 3296, into which it intruded. The pit was impacted by two historic features: a brick-lined pit, Feature 3209, and a rail line, Feature 3213. Only the bottom portion of the northern half of the pit remained in situ. The fill of this portion was removed by hand. The fill was dark brown silty clay with abundant amounts of charcoal and fire-cracked rock. Over 70 pieces of fire-cracked rock were recorded, most measuring less than 5 cm in diameter. No artifacts were recovered from the fill of the feature.

#### Feature 3316, Slab-lined Pit

This circular slab-lined pit was discovered during mechanical stripping, and was then completely excavated by hand (Figure 4.52). It intruded into the fill of Feature 3312, an earlier pit structure. The pit was basin shaped and measured 50 cm in length, 49 cm in width, and 37 cm in depth. Slabs of limestone lined the margins of the pit, with an additional slab



**Figure 4.52.** Feature 3316, a slab-lined pit, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

placed flat to serve as a base for the feature. A few slabs removed by the backhoe may have functioned as a cap over the pit. The slabs averaged 20 cm long, 20 cm wide, and 4 cm thick. The fill of the pit was tan clayey silt with a few pieces of unburned daub and small charcoal flecks. Two pieces of flaked stone were recovered from the fill.

#### Feature 3318, Pit

This small circular pit was discovered during mechanical stripping, and the northern half was then completely excavated by hand. The pit was basin shaped in profile, and measured 63 cm in diameter and 9 cm in depth. The fill of the pit was tan clayey silt with some light charcoal flecking. A few pieces of flaked stone were recovered from the fill.

#### Feature 3320, Pit

This oval pit was discovered during mechanical stripping, and the southwestern half was then excavated by hand. It intruded through an extramural surface, Feature 3317, also discovered during mechanical stripping. The pit had straight side walls, and measured 88 cm in length, 65 cm in width, and 44 cm in depth. The fill was dark brown clay with small pieces of charcoal and burned daub. Nineteen pieces of flaked stone and one piece of animal bone were recovered from the fill. Six pieces of fire-cracked rock greater than 5 cm in diameter were also noted, but were not collected.

#### Feature 3326, Pit

This small circular pit was discovered during mechanical stripping, and the northern half was then excavated by hand. The pit was basin shaped in profile, and measured 66 cm in length, 65 cm in width, and 23 cm in depth. The fill of the pit was tan clayey silt. Pottery sherds and pieces of flaked stone were recovered from the fill.

#### Feature 3328, Pit

This small circular pit was discovered during mechanical stripping, and the western half was then excavated by hand. It intruded through

an extramural surface, Feature 3317, also discovered during mechanical stripping. Pit Feature 3328 had straight side walls, and it measured 70 cm in length, 65 cm in width, and 39 cm in depth. The fill of the pit was tan clayey silt that contained abundant charcoal flecks and small pieces of burned daub. Artifacts that were recovered from the pit included 28 pieces of flaked stone and five pieces of animal bone. Thirty-two pieces of fire-cracked rock were also noted in the fill, although these were not collected.

#### **Feature 3329, Pit**

This small circular pit was discovered during mechanical stripping, and the northern half was then excavated by hand. The pit was basin shaped in profile, and was 78 cm long, 70 cm wide, and 15 cm deep. The fill of the pit was grayish-tan clayey silt with a few small pieces of charcoal and burned daub. Pieces of flaked stone and animal bone were recovered from the fill.

#### **Feature 3331, Pit**

This small circular pit was discovered during mechanical stripping, and the northern half was then excavated by hand. The pit was basin shaped in profile, and measured 60 cm in length, 54 cm in width, and 6 cm in depth. The fill was tan clayey silt with a few small pieces of charcoal and some oxidized daub. No artifacts were recovered from the fill of the pit.

#### **Feature 3334, Pit**

This oval pit was discovered during mechanical stripping, and the western half was subsequently excavated by hand. Pit Feature 3334 was basin shaped in profile, and measured 1.98 m in length, 48 cm in width, and 28 cm in depth. The fill was tan clayey silt with dark brown lumps of clay throughout. Two sherds and six pieces of flaked stone were recovered from the fill. Seven pieces of fire-cracked rock greater than 5 cm in diameter were also noted, but were not collected.

#### **Feature 3336, Pit**

This small circular pit was discovered during excavation of Feature 3213, a historic rail line. The pit was basin shaped in profile, and was approximately

60 cm in diameter and 44 cm in depth. It was constructed into the fill of a prehistoric pit structure, Feature 3296. The rail line truncated the southern half of both Feature 3336 and Feature 3213, into which it was intrusive.

The remaining fill of the pit was subsequently removed by hand-excavation. The fill was dark brown silty clay with abundant amounts of charcoal. The base of the pit appeared to be slightly oxidized. Artifacts recovered from the fill included ground stone, pieces of flaked stone, and some animal bone. Three pieces of fire-cracked rock greater than 5 cm in diameter were also noted, although these were not collected.

#### **Feature 3358, Pit**

This small circular pit was discovered during excavation of another small pit, Feature 3229, into which it intrudes. Only the southern portion of pit Feature 3358 was excavated. The pit was basin shaped in profile, and measured 42 cm in diameter and 18 cm in depth. The fill was brown silty clay with small pieces of charcoal included throughout. Most of the artifacts recovered from Feature 3358 were collected as being mixed with fill from Feature 3229, the underlying pit. One mano was collected as unmixed from the base of the pit.

### **OTHER PREHISTORIC FEATURES**

#### **Feature 3317, Extramural Surface**

This extramural surface was found during mechanical stripping, and the northern half was subsequently cleared by hand. The cleared area measured 2.15 m in length and 1.55 m in width. The surface was characterized by a slight depression that rose gently from east to west. Fill above the surface consisted of dark brown clay, with abundant amounts of charcoal and a high concentration of oxidized daub throughout. The average depth of fill over the surface was approximately 10 cm. Artifacts recovered from the fill included 28 pieces of flaked stone, one ground stone mano, a piece of oxidized daub containing reed impressions, a few snail shells, and pieces of both worked and unworked animal bone. One small pecking stone was collected from the surface of Feature 3317.

Two small pits, Features 3320 and 3328, intruded through Feature 3317, while two additional small pits, Features 3321 and 3323, also originated at this surface. The two small pits originating at this surface were not excavated.

## HISTORIC-ERA FEATURES

The historic-era features of the Brickyard locus were created during the use of the area by the Tucson Pressed Brick Company, in operation from the 1890s to the 1960s. A portion of the brickyard was previously investigated during the A-Mountain Storm Drain project, and the Rio Nuevo fieldwork uncovered most of the rest of this industrial complex (Diehl and Diehl 1996).

### Feature 3200, Scove Kiln Foundation

This adobe foundation was discovered during backhoe stripping around Feature 3201, a large brick surface (Figure 4.53). After it was exposed, the foundation was uncovered by hand. The foundation consisted of two courses of adobe bricks placed side by side. Portions of the southeastern corner of the wall were uncovered during earlier excavations (Diehl 1996), and were recorded as Feature 1004 at that time. Using Sanborn Fire Insurance maps, the adobe bricks were determined to be the foundation for a scove kiln. This information was consistent with oxidization found on the inner course of bricks. Considered as a whole, the kiln foundation measured roughly 33 m long and 11 m wide. The foundation wall was about 85 cm wide along its length.

During the more recent excavation, the remaining portions of the kiln foundation were uncovered, as was a small part of the originally excavated foundation. The wall appeared to have been cut by two large brick surfaces, Features 3201 and 1001, on its eastern and western sides. Feature 3203, a concrete surface, extends through and around cuts in both the eastern and western ends of the foundation. The openings formed by the cuts measured approximately 2.7 m in length. The original purpose of the concrete surface was unknown.

The two courses of the adobe wall were placed side by side and, as previously recorded (Diehl 1996), were aligned differently with respect to the face of the wall. The inner course of bricks was arranged with the long axes perpendicular to the wall face, while the outer course had the long axes parallel to the wall face. The blocks of both

courses were similar in size and averaged 50 cm long and 2 cm wide. The inner course of blocks was reddened from oxidization, while the outer course appeared gray and unoxidized.

This kiln was present on the 1919 Sanborn Fire Insurance map. However, the kiln was already gone on the 1922 map, and the Transformer House stands in place of the kiln's southeastern corner.

### Feature 3201, Brick Surface

This brick surface was discovered during backhoe stripping at the site, and was subsequently completely excavated by hand (Figure 4.54). The surface consisted of closely fit, dry-laid bricks lying on their



**Figure 4.53.** Feature 3200, a scove kiln foundation, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).



**Figure 4.54.** Feature 3201, a brick surface, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

long ends. The brick surface measured 27.90 m in length and 4.75 m in width. It was lined on the northern, western, and eastern sides by wooden planks. The southern side of the feature was heavily disturbed by an overlying concrete surface, Feature 3203, and the foundations of a pug mill, Feature 3202. Ripper marks were visible near the disturbed area of the brick pad and many of the bricks were deformed. This brick surface is practically identical to another brick surface discovered during previous testing (Diehl 1996) and recorded as Feature 1001. The two brick surfaces, Features 1001 and 3201, may have been part of the same surface at some time.

The surface was difficult to date because it does not appear on any Sanborn Fire Insurance maps or in any of the aerial photographs of the site. Because the brick pad cuts the walls of a scove kiln shown in use in 1919, it must postdate the kiln. The concrete surface, Feature 3203, that cuts the brick pad underlies the Transformer House shown in the Sanborn map of 1922. Therefore, the brick pad must have been constructed, used, and at least partially destroyed between 1919 and 1922.

#### Feature 3202, Pug Mill Foundation

Feature 3202 represented the remains of the foundation for one of the brickyard's pug mills (Figure 4.55). The foundation consisted of walls of poured concrete constructed into a pit excavated below the ground surface. The concrete foundation walls contained heavy rebar, some of which protruded out of the top of the foundation. The foundation wall on the eastern side was straight along its length, and

measured 3.25 m in length, 90 cm in width, and 1.97 m in depth. The western foundation wall was slightly longer and had two extensions coming off it toward the west. The portion of the western foundation wall running parallel to the eastern wall was 10.6 m long, 90 cm wide, and 2.02 m deep. The branches ran off the northern and southern ends of this wall at roughly 45-degree angles. The branches were 4.6 m long and 2.0 m wide. These branch walls descended into Feature 3203, the poured concrete surface, and could not be excavated to their full depth. Both of these branch walls had large pieces of heavy-duty rebar protruding from their top surfaces.

Construction details of Feature 3202 indicated the walls served as a foundation for a piece of heavy machinery used at the brickyard. The size and configuration of the foundation suggested it may have supported a pug mill for processing the clay used for making bricks. Historic pictures taken of pug mills in use at the brickyard show the machine was the same general shape as the foundation. In the construction of this foundation, a pit would have been excavated, the foundation poured, and the pit back-filled. These processes fit with the general information gathered during excavation of the feature.

No dates are known for the construction or use of this feature. It does not appear on any of the Sanborn Fire Insurance maps between 1919 and 1960, nor in any of the aerial photographs of the site. The only limiting factor on dates of its use is the fact that it cuts a concrete surface, Feature 3203, also present in that area. The concrete surface was laid sometime between 1919 and 1922, meaning that the pug mill could not have been in place before 1919.

#### Feature 3203, Concrete Surface

This weak concrete surface was discovered during mechanical stripping around Feature 3201, a large brick surface. The concrete filled the area between the two brick surfaces, Features 3201 and 1001, and cut the foundation wall for Feature 3200, one of the brickyard's scove kilns. The concrete surface itself was cut by the foundation for Feature 3202, a pug mill.

The surface was composed of poor-quality concrete that was heavily damaged by a ripper or another piece of heavy machinery. The concrete surface appeared to postdate both the kiln foundation and the brick surfaces that surrounded it. Three postholes cut into the concrete—



**Figure 4.55.** Feature 3202, the foundation of a pug mill, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

Features 3203.01, 3203.02, and 3203.03—were almost certainly from the electrical poles that stood to the west of the Transformer House. As the Transformer House was on Sanborn maps in 1922, the concrete surface dated from sometime between 1919 and 1922.

The original use of this surface was unknown. It may have been poured to provide a relatively flat work surface for brick production, but this could not be proven.

#### Feature 3204, Scove Kiln

This feature was a scove kiln, used for firing bricks during the early years of the brickyard (Figures 4.56a-b). Portions of the kiln were originally recorded during three phases of previous testing. These portions were recorded as Features 189, 383, 384, 385, and 386 (Diehl 1996; Thiel 1995). The area was mechanically stripped during the current excavation to uncover the entire northern half and components of the southern half of the scove kiln. Once identified, the stripped portions of the feature were completely excavated by hand.

Eighteen brick floors and 18 fuel chambers (flues) were excavated in the northern half of the kiln. The northernmost sections of 20 brick floors and 20 flues were uncovered in the southern portion. Two flues and three brick floors in this southern portion were fully excavated during testing in 1996 (Diehl 1996). The flues of the kiln appeared to open north on the northern side, and open to the south on the southern side. The total excavated area of the kiln was some 30.25 m in length and 11.25 m in width. The 1919 Sanborn Fire Insurance map showed that the kiln originally measured 100 ft long and 35 ft wide (Diehl 1996). Fill of the excavated areas contained large amounts of charcoal and ash, a few coal clinkers, and abundant amounts of degraded brick and brick chunks. The fill was similar in both the flues and the brick floors, although the concentration of ash in the flues was considerably higher.

The kiln itself was constructed of courses of dry-laid pressed bricks. All the bricks measured approximately

21 cm in length, 10 cm in width, and 7 cm in thickness. The style of the bricks varied both between and within individual flues and brick floors. Although all were pressed bricks, some bricks had a plain frog on one face, others had a frog with a TPBCo maker's mark within it, and a few others had no frog at all. The flues and brick floors of the kiln were all constructed in the same manner. The flues measured between 2.88 m and 2.90 m in length, and from 28 cm to 31 cm in width. The floors had matching lengths, but measured between 68 cm and 1.4 m in width.

A coal pit, Feature 3206, was found abutting the northern half of the kiln. As the flues of the kiln opened on this side, it was assumed that this coal pit represented the fuel source for the scove kiln.

The kiln was marked as "dilapidated" on the 1922 Sanborn Fire Insurance map, suggesting its last use occurred sometime between 1919 and 1922.



Figure 4.56a-b. Feature 3204, scove kiln, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

### Feature 3205, Brick Drying Rack

These remnants of brick drying racks were discovered during backhoe stripping of an area within the brickyard (Figure 4.57). Eighteen linear arrangements of wooden planks were excavated in an area north of the scove kiln, Feature 3204, and the Transformer House. The wooden planks were flanked by pairs of bricks, one on either side of the plank. These bricks occurred at fairly regular intervals the entire length of the plank. Based on photographs of the site, the plank and brick arrangements were thought to represent footers for brick drying racks.

The rack footers covered an area 56 m wide, and the average length of the footers was about 20 m. All the footers were arranged in essentially a roughly north-south alignment. The central and easternmost footers were the best preserved, and many still contained large portions of intact wooden planking. The wooden planks measured 15 cm in width and 4 cm in thickness, but varied greatly in length. Each footer was composed of several pieces of planking along its length. The bricks on either side of the plank were pressed, and extruded bricks varied from gray to bright red in color. The bricks measured 23 cm in length, 12 cm in width, and 8 cm thickness. A few of



**Figure 4.57.** Feature 3205, the brick drying rack, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

the footers had “caps” on either end, composed of two to three bricks turned perpendicular to the direction of the footer.

A few of the footers contained no actual planking but impressions of the wood had been preserved in the clay. Some others had neither wood nor impressions, but the flanking bricks remained in place. The westernmost footers were the most poorly preserved, and in some cases, had been completely obliterated. No artifacts were collected during excavation of the footers.

These brick drying racks did not appear on the 1919 Sanborn Fire Insurance maps, suggesting they were no longer standing at this time.

### Feature 3206, Possible Fuel Pit

This pit was discovered during backhoe stripping of an area immediately north of Feature 3204, the scove kiln. It measured 25 m in length and 6 m in width. A 5.7-m by 2.5-m portion of the pit was excavated with the backhoe to a level just above the base. The remaining fill in that portion was then removed by hand. The pit ran the entire length of one side of the scove kiln, ending on the eastern side where both pit and kiln were truncated by a modern garbage dump.

The depth of the excavated portion of the pit was 30 cm, although the pit may have been slightly truncated during backhoe stripping. The fill consisted mostly of compact silt with some gravels. A thin layer of coal and coal dust was discovered just above the pit bottom, but the pit appeared to have been mostly cleaned out before it was abandoned. No artifacts were recovered from the excavated portion of the pit.

The location of the pit, as well as the presence of the coal, suggested this pit was used to hold fuel for the adjacent scove kiln, Feature 3204. The flues on the northern side of the kiln open directly onto this pit. The pit was probably abandoned after the last use of the kiln between 1919 and 1922.

### Feature 3207, Well

This historic-era well was found during mechanical stripping of the site (Figure 4.58). After it was discovered, the well was excavated with the backhoe down to a depth of roughly 3.5 m without reaching the bottom. The dimensions and construction details of the well were recorded before it was filled in for safety reasons.

The well opening measured 3.75 m in length and 3.05 m in width. Brick walls lined the well from the ground surface to a depth of about 42 cm. These walls had been constructed of pressed bricks from the

brickyard, almost all of which were “wasters.” These bricks had been melted to others, were irregular in size, or had broken during their production.

The well contained several layers of fill. A large tractor tire was discovered at the top of the well, just below the ground surface. The top 1.0 m of fill consisted of historic-era trash that included soda bottles, rusty metal, and a piece of costume jewelry. The lower 2.5 m of fill was composed mostly of bricks, rusty metal, and a few machine parts. The dates for the construction and abandonment of the well were unknown, and it did not appear on either the Sanborn Fire Insurance maps or aerial photographs of the site.



**Figure 4.58.** Feature 3207, the brickyard well, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

### Feature 3208, Equipment Mounts

This cluster of brick pads was uncovered during mechanical stripping and was cleared of remaining overburden by hand (Figure 4.59). Due to similarities in their construction, the eight separate pads were considered as subfeatures—Feature 3208.01-3208.08—of a single feature. No further excavation was conducted except small test holes to determine the depth of some of the pads. All were constructed of wire-cut bricks measuring 22 cm in length, 10 cm in width, and 7 cm in thickness.

Feature 3208.01 was a rectangular brick pad, 9 cm long and 65 cm wide. Feature 3208.02 was an L-shaped brick pad, 1.1 m long and 1.0 m wide. Feature 3208.03 was a rectangular brick pad that measured 90 cm in length, 65 cm in width, and 37 cm in depth. Feature 3208.04 was a rectangular brick pad, 90 cm long and 65 cm wide. A small piece of rebar was found protruding from the center of the pad. Although Features 3208.01-3208.04 were similar in size, shape, and construction, it was unknown if they were related to one another in use. Each probably had pieces of machinery mounted on them at one time.

Feature 3208.05 was a roughly rectangular brick pad with a small L-shaped arm protruding off its northeastern corner. The pad measured 1.6 m in length and 85 cm in width. A small 12-cm by 12-cm



**Figure 4.59.** Feature 3208, brick equipment mounts, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

post was found just east of the small L-shaped portion of the pad. This pad was located immediately north of a brick press, Feature 3210. Its location in relation to a piece of machinery found at the bottom of the brick press suggested this pad may have been a footing for a piece of machinery related to the brick press. The small wooden post was probably for utilities related to this piece of machinery.

Feature 3208.06 was a roughly rectangular brick pad, 3.05 m long, 1.75 m wide, and 1.64 m deep. The function of this brick pad was unknown. Feature 3208.07 was also a roughly rectangular brick pad, 2.5 m long and 1.5 m wide. Its function was unknown.

Feature 3208.08 was a roughly rectangular brick pad that measured 1.55 m in length and 90 cm in width. The function of this brick pad was unknown.

No artifacts were collected from Feature 3208.

#### Feature 3209, a Brick-lined Pit

This brick-lined pit was discovered during mechanical stripping of the site (Figure 4.60). It was rectangular in shape, and measured 1.45 m in length, 95 cm in width, and 37 cm in depth. The bottom of the pit was a flat surface of concrete. The top courses of the brick walls were slightly impacted by a utility trench constructed after the pit had been filled.

The fill of the pit was a uniform deposit of moderately compacted silt. Artifacts recovered from the fill consisted of a few animal bones, some glass, metal, and a few glass marbles.

This pit was located just south of a short rail line, Feature 3213, used during brick production. Feature 3214, another brick-lined pit similar to Feature 3209, was discovered north of this rail line. It is unknown if both brick-lined pits performed a similar function, or if either was related to use of the rail line. If Feature 3209 was constructed or used at the same time as Feature 3214, it probably postdated the abandonment and filling of the rail bed.

#### Feature 3210, Pug Mill Foundation

This feature was initially discovered during mechanical stripping, and was then completely excavated by hand (Figures 4.61-4.64). The machinery of a pug mill was placed below ground in a pit that measured 3.90 m in length and 2.95 m in width. The pit was separated into two distinct areas, both of which appeared to have housed separate parts of the machinery. These areas were excavated as subfeatures of the overall pit.

Feature 3210.01 was the deeper of the two areas at 2.80 m long, 1.55 m wide, and 2.38 m deep. This area was lined by wooden planks that formed the walls of the lower pit. The fill of the subfeature contained abundant amounts of historic trash that included metal, bricks, and raw material for brickmaking. Also recovered from this fill were several



Figure 4.60. Feature 3209, a brick-lined pit, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).



Figure 4.61. Feature 3210, a pug mill foundation, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).



Figure 4.62. Feature 3210, foundation of the early pug mill, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).



**Figure 4.63.** Features 3210 and 3213, the early pug mill and subsurface railroad track, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

metal “scoops” that appeared to have been attached to a conveyor belt. A large metal flywheel was discovered on the floor in this area. The artifacts seemed to suggest that raw material for brickmaking was fed into this area and carried by the “scoops.” One end of the belt was probably looped around the flywheel found at the bottom of the pit. A brick pad, Feature 3208.05, immediately north, at the edge of the pit, may also have held a piece of machinery associated with this conveyor belt. The orientation of the flywheel seemed to suggest the belt may have moved in that direction. Feature 3213, the terminus of a short rail track, lay immediately above and south of this subfeature, and may have acted as the mechanism for removing unfired bricks from this area.



**Figure 4.64.** Features 3210, 3213, and 3216, the early pug mill, the subsurface railroad track, and a work area, respectively, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

Feature 3210.02 was the second area of the pug mill pit. It lay east and above the first area and measured 2.80 m in length, 2.20 m in width, and 1.79 m in depth. This area was also lined by wooden planks that formed walls for the pit. Most of the fill in this area was sand and silt with little historic trash, as compared with the lower subfeature. The upper area was not enclosed on its western side where it opened into Feature 3210.01. It contained a substantial rectangular brick pad, 2.50 m long, 1.35 m wide, and 60 cm deep. The brick pad was constructed of eight courses of wire-cut bricks that were 21 cm long, 10 cm wide, and 7 cm thick. Four heavy pieces of rebar protruded from the top of the brick pad. The rebar suggested the pad was a mount, probably for a piece of machinery related to the pug mill. The machinery had been removed prior to the filling of the brick press pit. No evidence was discovered for how this machinery was related to other parts of the pug mill.

This pug mill was the original brickyard mill used in the 1890s.

#### **Feature 3211, Machinery Mounts**

This cluster of foundation footers was revealed during mechanical stripping and was then cleared by hand. The proximity of the footers to one another suggested they may have served as footers for the same structure or piece of machinery. Construction of the footers was of two different types: two were concrete and one was brick.

Feature 3211.01 was a large rectangular concrete foundation that measured 2.7 m in length and 55 cm in width. The concrete was weak to the point of crumbling, and it contained many medium-sized stone cobbles in the concrete matrix. The footer had a large crack approximately midway along its length that separated it into two pieces.

Feature 3211.02 was a roughly rectangular brick pad, 1.35 m long and 65 cm wide. The bricks of this footer were heavily crushed and deformed. Five pieces of heavy gauge rebar, also bent and deformed, protruded from various points within the footer, which suggested that whatever had originally been attached to the footer was removed with some force.

Feature 3211.03 was an almost square footer constructed of concrete, with a few ceramic tiles imbedded in the concrete matrix. It measured 90 cm in length and 80 cm in width. The concrete of this footer was also weak and crumbling and contained a few medium-sized stone cobbles. The southern portion of the footer was crushed and destroyed.

One piece of diagnostic glass was collected from between Feature 3211.01 and Feature 3211.02.

The proximity of the subfeatures to one another and the damage to all the subfeatures suggested they once served the same function as a foundation for the same structure or piece of machinery. The size of the rebar in Feature 3211.02 indicated what it once supported was probably substantial. No other evidence for the probable function of this foundation was discovered.

### Feature 3212, House Foundation

This house foundation was discovered during mechanical stripping (Figure 4.65). The foundation consisted of six roughly square blocks of concrete arranged in two parallel lines of three blocks each (Features 3212.01, 3212.02, 3212.03, 3212.05, 3212.06, and 3212.07). A small square formed from five bricks was thought to be the foundation for some stairs, Feature 3212.04. Also in close proximity was a large, mostly buried conglomeration of medium-sized cobbles, Feature 3212.08. The function of these cobbles was unknown.

Historic aerial photographs of the brickyard showed a house at this location, and the size and arrangement of the concrete pads were consistent with



**Figure 4.65.** Feature 3212, a house foundation, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

the foundation of a structure. Interviews conducted with the former residents of the house also confirmed that the concrete pads were the foundations of the house structure.

The six concrete pads were all identical in construction. They were composed of concrete with many small-to-medium cobbles. They were arranged into two parallels of three pads each. The two lines ran north-south about 2.5 m apart. The lengths and widths of the individual foundation pads were as follows.

- (1) Feature 3212.01: 71 cm long, 70 cm wide
- (2) Feature 3212.02: 85 cm long, 68 cm wide
- (3) Feature 3212.03: 78 cm long, 75 cm wide
- (4) Feature 3212.05: 80 cm long, 64 cm wide
- (5) Feature 3212.06: 90 cm long, 60 cm wide
- (6) Feature 3212.07: 97 cm long, 68 cm wide

Feature 3212.04 was a small pad consisting of five bricks. The pad measured 38 cm in length and 37 cm in width. Because it was very small, it likely did not represent another foundation for the house. Rather, it probably served as the foundation for a small set of steps for the house.

Feature 3212.08 was a large area of medium-sized cobbles in a clay matrix. The cobbles were very densely packed and appeared to have been dumped there purposefully, in a single episode. The area of cobbles measured 4.32 m in length and 2.10 m in width. Because the area consisted of almost pure rock, it was impossible to probe for a depth of the cobble concentration. The function of these cobbles was unknown.

The house that stood in this spot was visible in a 1950 aerial photograph of the site. The original construction date of the house was unknown.

### Feature 3213, Subsurface Railroad Track

This subsurface rail track was discovered during mechanical stripping (Figure 4.66; see also Figure 4.63). Fill of the rail bed was partially removed with the backhoe, but the base of the rail bed was then cleared by hand. The rail line was 21 m long and 2 m wide, and was at a depth of 65 cm below the stripped surface. The rail line began on the eastern side adjacent to the remains of Feature 3210, a brick press, and ended on the western side in a belowground work area, Feature 3216.

When excavated, only impressions of the rails and rail ties remained. From those impressions, it was determined that the ties were 1.2 m long, 15 cm wide, and 10 cm deep. Only one intact tie was recovered from the rail bed. Only the impressions of the rails themselves remained, both across the ties and in the clay base of the rail bed itself. The rails were about 5 cm wide and spaced approximately 80 cm apart. The rail bed had been intentionally filled after it went out of use, and much of the wood and metal from which



**Figure 4.66.** A close-up of the subsurface railroad track, Feature 3213, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

it was constructed appeared to have been scavenged for reuse. Only small portions of the shoring used to brace the sides of the rail bed were preserved and in situ. No definitive evidence was found for the existence of a roof over the rail line.

The spatial relationship between the rail bed; the brick press, Feature 3210; and the work area, Feature 3216, suggested the rail line served to move unfired bricks from the brick press on the east to a kiln located just beyond the work area on the west. Feature 3215, a plank-shored pit, probably also had a function related to the rail line, but this function remained unclear. Part of the work area around the rail line, Feature 3216.01, had a prepared clay floor on both sides of the track that suggested the carts were unloaded in that area.

The rail track was used for brickmaking for an unknown period of time between the founding of the brickyard and 1917, when brickmaking activity shifted to an area further south.

### Feature 3214, Brick-lined Pit

This rectangular brick-lined pit was discovered during mechanical stripping of the site and was then completely excavated by hand. It measured 2.15 m in length and 1.32 m in width, and had an interior depth of 36 cm. The exterior side of the pit was completely exposed during excavation of Feature 3216, allowing for more of the construction details to be recorded. The walls of the pit consisted of three in situ courses of brick, although the appearance of the top course suggested that at least one more course once existed. Below the brick was a 12-cm-thick bed of concrete that formed a foundation for the bricks. The exterior depth of the pit, from the top of the bricks to the bottom of the concrete, was 46 cm.

Some 30 cm of fill was excavated between the stripped surface of the feature and the bottom of the pit. The fill was a mix of construction debris, silt, and historic-era trash. Artifacts recovered from the fill included some metal, a mineral sample, a partially reconstructable glass bottle, and a complete glass jar.

The inner walls and the bottom of this feature were lined with a white mortar or plaster. This suggested the pit may have been designed for holding water or some other liquid. No other evidence for the possible function of this pit was discovered.

This pit overlay and intruded on the northeastern portion of the belowground work area, Feature 3216. It was constructed sometime after the work area had been abandoned and filled. This pit was very similar in size and construction to another brick-lined pit, Feature 3209, discovered at the site. It is unknown if the two pits served the same purpose, or if they were in use at the same time.

### Feature 3215, Plank-lined Pit

This plank-lined pit was discovered during mechanical stripping of the site. After it was revealed, the pit was excavated completely by hand. The overall length of the feature was 4.00 m, and the width was 1.45 m. During excavation, it was found to be composed of two separate portions that appeared similar, but that were actually constructed differently. This feature was discovered at the western end of a small rail line, Feature 3213, and within a larger pit, Feature 3216, that may have served as a work area for brick production.

The eastern portion of the pit was smaller and roughly square, measuring 1.0 m in length and 90 cm in width. For its construction, a pit was excavated; vertical posts and horizontal planking were used to construct walls. A mortar-like mixture was added to fill the space between the excavated pit and the plank shoring. Most of the plank shoring was found intact, although the boards were missing in some places, leaving only impressions in the plaster.

Approximately 74 cm of fill was excavated between the stripped surface and the floor in this portion of the feature. The fill consisted of mottled sand and silt with pieces of rotted wood and rusty metal. A piece of sheet metal and a metal rod with one threaded end were recovered from the base of the pit.

The western portion of the feature was also plank lined, although it was more rectangular in shape. It measured 2.0 m long and 1.4 m wide. This portion of the feature was constructed by digging trenches for the posts and the planking. Most of the soil enclosed by the planking was not disturbed, and the interior of this portion of the feature had no depth. A measurement taken from the exterior of the plank shoring gave a depth of 65 cm. No artifacts were recovered from this portion of the feature.

Except for the location of this feature at the end of the rail line, Feature 3213, no evidence about its possible function was discovered. The eastern portion of the pit may have originally contained a piece of machinery related to the rail line during the time it functioned, although no evidence of this was recovered. The western portion of the pit may have served as a platform or as a surface for another piece of machinery. The pit was definitely related to early brick production sometime between the founding of the brickyard and 1917.

### Feature 3216, Work Area

This was an irregularly shaped belowground work area related to brick production (see Figure 4.64). The area was separated into two subfeatures,

Feature 3216.01 and Feature 3216.02, due to the different construction details associated with each. The entire area was 8.7 m long, 5.2 m wide, and had an average depth of 86 cm. It was located at the western terminus of a short belowground rail line, Feature 3213. The eastern end of this rail line terminated in an area that was thought to hold a brick press, suggesting that carts containing bricks were off-loaded in this area.

Feature 3216.01 was a large, roughly octagonal shore-lined pit. Some of the wooden shoring was found intact, although most had been scavenged before abandonment and filling of the area. Fill in this area was grayish-brown sandy silt of moderate compaction. The fill contained abundant amounts of historic-era trash, including bricks, concrete chunks, stone cobbles, and rusty metal. The floor of this area was a highly compacted clay surface that extended both north and south of the rail tracks, Feature 3213. Most of the intact wooden shoring was found in this area.

After the pit had been excavated, the planks were placed against the wall and backed with wooden posts. The clay that formed the floor was then deposited to hold the posts in place. The clay floor formed a raised surface that extended roughly 15 cm above the base of the rail bed. The existence of this floor surface suggested that this area was used in connection with operation of the rail line, perhaps for unloading the unfired bricks from the rail carts. No artifacts were found on the floor of this area.

The approximately circular area of Feature 3216.02 was connected to the western end of this work area. Although connected with Feature 3216.01, the construction details of Feature 3216.02 were substantially different. No floor surface was found at the bottom, and the surface from Feature 3216.01 appeared to have stopped just at the edge of Feature 3216.02. Additionally, Feature 3216.02 contained another separate plank-shored area, possibly used for holding machinery, Feature 3215. The plank shoring from the western wall of Feature 3215 extended north and south, effectively bisecting the circular pit. The only difference in the fill from Feature 3216.02 from that of Feature 3216.01 was a noticeably higher concentration of rusty metal.

Both areas of Feature 3216 appeared to have been cleared of anything useful prior to their abandonment and filling. This area served an unknown function related to the movement of bricks from the rail line in the east to a kiln in the west. It did not appear on the Sanborn Fire Insurance maps, suggesting that it functioned between the founding of the brickyard and 1917.

Feature 3216.01 is intruded on in the north by a brick-lined pit, Feature 3214.

### Feature 3217, Pit

This square pit was discovered during mechanical excavation of Feature 3216, a large work area. It measured 82 cm in length, 75 cm in width, and 16 cm in depth. The fill of the pit was mottled sand and silt with no artifacts. Sand in the fill was red in color and suggested the presence of deteriorated bricks. The pit was slightly intruded on by the work area, Feature 3216, dating it to between the founding of the brickyard and 1917. No artifacts were recovered from the fill, and the function of the pit could not be determined.

### Feature 3256, Office Foundation

This mixed rock and brick foundation was discovered during mechanical stripping (Figure 4.67). The remains of the foundation were cleared by hand after its discovery. It measured 6.0 m in length and 4.2 m in width. The foundation probably represented what remained of the brickyard office. The office was likely constructed sometime in the 1930s, and remained standing until at least 1952, where it can be seen in an aerial photograph of the site.

The foundation was constructed of several different types of brick, as well as masonry stones held together by mortar. Two courses of the foundation remained, and a measurement from the top of the remaining foundation to the base was 15 cm. A possible entryway was located in the eastern side of the foundation. The opening in the foundation measured about 1.35 m in length.



**Figure 4.67.** Feature 3256, the foundation of the brickyard office, Brickyard locus, the Clearwater site, AZ BB:13:6 (ASM).

The area enclosed by the foundation was left unexcavated, because the stripped surface was thought to already be below the historic floor level of the building. The lack of construction debris associated with the foundation suggested the office had been dismantled before the foundation was buried. The only artifacts collected from the foundation were several pieces of decorative ceramic cornice that may have once been part of the structure.

The brickyard office is the subject of several photographs taken of the area between the 1940s and the 1960s.

### Feature 3259, Privy Pit

This privy pit was discovered during mechanical stripping. The pit was then excavated completely by hand. It was roughly square in shape, and measured 1.32 m in length, 1.30 m in width, and 71 cm in depth. Fill of the pit was mostly loosely compacted organic material that contained almost no artifacts. One piece of diagnostic glass was collected from the fill. The dates of use for this feature were unknown.

### Feature 3302, Pit

This rectangular pit was discovered during mechanical stripping, when the wooden planks that formed its sides were exposed. The pit was 1.65 m long, 65 cm wide, and 8 cm deep. The sides were constructed of poorly preserved wooden planks that measured approximately 5 cm in width. The north-

ern one-third of the feature had been almost completely destroyed during demolition of the brickyard; only the southern one-third of the pit was excavated. No artifacts were present in the fill. A few pieces of fire-cracked rock were noted, but they are thought to have originated from a prehistoric roasting pit, Feature 3303, into which this pit intruded. The function of Feature 3302 was unknown.

### Feature 3309, Pit

This rectangular pit was discovered during mechanical stripping, and was subsequently excavated completely by hand. It measured 1.42 m in length, 60 cm in width, and 28 cm in depth. Fill of the pit was very

loose sandy silt that contained many historic-era artifacts. Artifacts recovered from the fill included large amounts of rusty metal, some ceramic, rubber, leather, brick fragments, and two children's toys. One piece of ceramic, probably a child's art project, had a date of October 09, 1930(8?), written in pencil on the back. A few prehistoric artifacts were also collected from the fill and were thought to have come from Feature 3306, a pit structure into whose fill Feature 3309 was constructed. These artifacts included a few

sherds, some flaked stone, and several pieces of fire-cracked rock.

This pit was discovered just north of a probable house foundation, Feature 3212. The presence of domestic trash and children's toys in the pit reinforced the hypothesis that the foundation was indeed a house, and it further suggested the pit was related to the functioning of the house. The pit size was small for a privy, but may have served as a planting or a trash pit.



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