Archeological Investigations at Mission Espíritu Santo (41GD1), Goliad County, Texas

by

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with an Appendix by

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Excavation of Aranama Mound Located Immediately West of the Yard of Aranama (Espíritu Santo) Mission

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Appendix A

Excavation of Aranama Mound Located Immediately West of the Yard of Aranama (Espíritu Santo) Mission, on the East Bank of San Antonio River, 1½ Miles S.E. of Goliad, in what is now Goliad State Park, Goliad County, Texas. One-half Mile N. of La Bahia Mission.

Excavated July 19 to August 14, 1933
By A. T. Jackson and Crew

Anthropology Dept. University of Texas Austin

J. E. Pearce – Head of Dept.
A. T. Jackson – Field Foreman

[Minimal formatting and grammatical changes to A. T. Jackson's original manuscript have been made. In some cases, when artifacts could be relocated, new photographs of the artifacts have replaced originals. Several sketches of artifacts recovered by the Goliad crew have been reproduced as they appear in the original manuscript. Figure numbers and captions have been added and referenced in the text. Handwritten notes that appear on the original (presumably added by Jackson) have been included in this reproduction.]

Appendix A: Excavation of Aranama Mound

A. T. Jackson

The mission was founded by Padre Antonio Margil, a Franciscan, in 1717 in what is now Victoria County, Texas, and moved to its present location in 1749. Tribes of Indians at the mission were: Taranames, Tamiques, Piquianes and Manos de Perro. The latter name means "hands of the dog." Mission named for Taranama Indians.

The mound was built up on the sloping side of the second terrace from the river channel. The western edge of the mound is approximately 100 yards from the river. The eastern edge is bounded by the western wall of the stone fence that encloses the mission. It would thus seem that the Indians, during the mission period, lived just outside the mission confines.

The length of the mound from east to west is slightly over 85 feet; the width, north to south, approximately 75 feet; height at tallest point, 11⅔ feet. Of this elevation, 7 feet represent a natural knoll [Figure A-1].

Surface potsherds, flint chips and occasional artifacts are present around and within the mission yard; but are much more abundant on the mound. Among the surface finds on the mound were a metal arrowpoint, handle from a vessel of Indian manufacture, fragments of European pottery with glaze and painted designs, and a flint for flint-lock gun.

Since the mission environs, including the midden mound, are within the Goliad State Park, care was taken not to uproot any of the trees in the work of excavating [Figure A-2].

Midden Finds

A piece of glazed ware, perhaps the bottom of European cup, came from midden deposit 12 feet west of the pipe (Photo 395-B [photo could not be located]). In blue was imprinted a potter's mark, or other label, as follows:

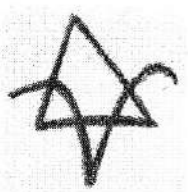


Figure A-1. *Midden mound just outside the yard of Aranama Mission, and about 300 feet from San Antonio River. The midden deposit was built up on a natural elevation or hillside.*
Courtesy TARL, UT-Austin, photo 41GD1-4.

Among the miscellaneous small articles found in the midden are a small copper wire with a loop at one end; a brass button the size of our 5¢ piece; molded lead balls; sheet brass; metal gouge or awl; square nails; a few small blue glass beads (the latter found by Goliad crew).

According to agreement entered into between U. of T. and Judge J. A. White, the latter representing the Goliad Park, the two were to furnish crews that would keep all finds separately, each to keep what found. The U. of T., however, was to be permitted to take notes and photograph all finds of importance made by the local Goliad crew.

At a depth of 12", near the central part of the outer (western) edge of the mound were two large fragments of sheet copper. One was roughly circular, 5" to 5½" in diameter; the other was 26" long and ranged in width from 3" to 6". Near one end of the strip is a patch of the same material, bradded in place. These fragments perhaps come from a large copper vessel.

At a depth of 28" was a bar of hammered copper some ½" wide, ¼" thick, and 4" long. It was sharpened at one end and battered at the other, apparently having been used as a chisel.

Two small fragments of stones, rubbed smooth on one side, came from near the surface of the mound. These seem to have been from metates; despite the fact that the Solis Diary of 1767 states that the mission Indians here did "not make tortillas for want of metates with which to grind the corn and of comales "(earthen pan)" in which to cook it. Both of these articles are very scarce, each metate costing twenty-five pesos" (from the Solis Diary of 1767, translated by Rev. Peter P. Forrestal, Preliminary Studies of the Texas Catholic Historical Society, page 14, Austin, Texas).

An old spur, minus the rowel (and of course the straps) came from southwest edge of the mound at a depth of 5".

A brass finger ring, with six small blue sets (3 on each side) and a large central set of transparent glass-like materiel, was found at a depth of 20". It is tarnished, but in a good state of preservation [Figure A-3].

Metal hook, or door latch, from 26" depth. Resembles a fishhook, except has no barb.

A small mussel shell pierced for hafting.

Figure A-2. *Excavation of the midden around trees.* Courtesy TARL, UT-Austin, photo 41GD1-5.

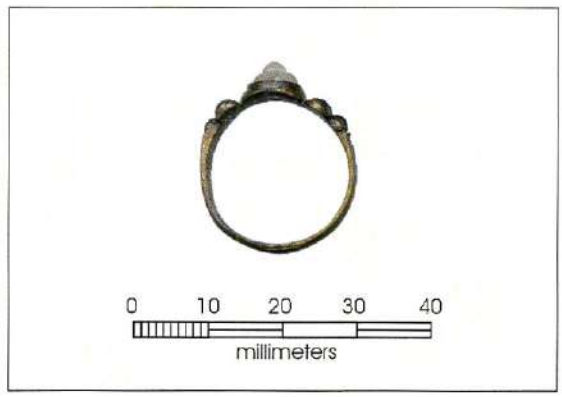


Figure A-3. *Brass ring with blue and transparent sets.* Courtesy TARL, UT-Austin (no catalog number).

Brass buttons, about size of our dime, with an eye at back.

Needle-like article of silver or nickel shaped as follows:

Goliad Crew

Depth 2". Probably part of decoration of a priest.

At a depth of 8", in N.W. edge of the mound, was discovered a small, thin coin or button top. It bore no superscription or design of any kind on one side; this, coupled with its extreme thinness, causes a question as to whether or not it was a coin. On the stamped side, encircling the head of a man, appeared the following: "JOSEPH US II". No date was visible. The specimen seemed to be made of copper or bronze (found by Goliad crew). It was slightly smaller than our dime.

At a depth of 8" in the extreme S.W. edge of the mound was a small brass crucifix, with six glass sets.

A metal trigger-guard, bearing an engraved design, came from the midden deposit near the pipe later described (Photo 395-A [photo could not be located]).

The gold-plated top of a button came from the same portion of the midden.

Several small pieces of mica were discovered in the deposit.

A piece of red ocher some 3" x 2" x 1½", with a depression worn in one side, came from a depth of 10" in S.W. part of the mound [Figure A-4].

Flint scrapers were fairly common in the deposit. Some were of the "duck-bill" or end-scraper type, while others were made from thin flakes merely by some secondary chipping along one or both sides.

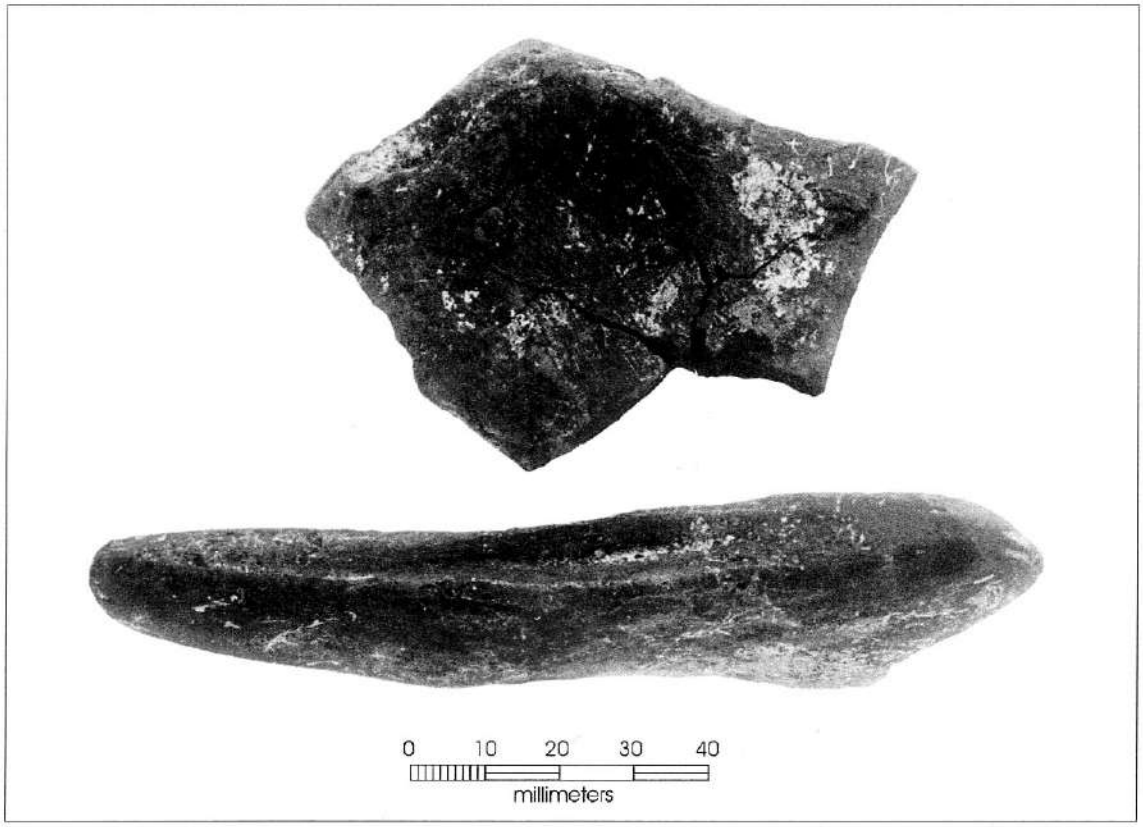
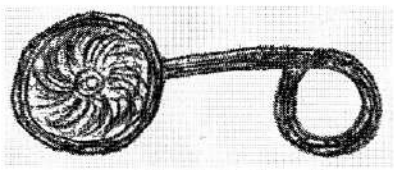


Figure A-4. *Red ocher showing depressions worn by grinding powder for use as paint.* Courtesy TARL, UT-Austin, photo 41GD1-46.

But the tiny flint scrapers, such as are found along the coast (Webb Island, Nueces Co., for instance) and at San Rosario Mission, two miles S.W. of Goliad, are very scarce at Aranama (Espíritu Santo) Mission.

From a depth of 12" came two small metal "powder-spoons." They lay side by side in the central part of the mound about 20 feet from the western edge. They were of about the following shape and size:



(Found by Goliad crew)

At several places in the northwestern part of the midden were small chunks of lime plaster bearing a coat of red paint. They came from depths of 6" to 11". The remains of a similar plaster may still be seen at two spots on the wall of the mission. One of these, on the unroofed wall where it is exposed to sun, wind and rain, is white and shows no trace of red paint. The other spot of plaster, in the N.W. corner of the south room and from 6" to 18" above the dirt floor, is better protected from the weather and still retains a dim to deep red color, several shades darker than that recovered from the midden deposit.

This, then, would seem to be the origin of the painted plaster excavated. Perhaps when the red plaster scaled from the wall, the Indians' love of red caused them to take the flakes as charms or good luck pieces. Or possibly they chipped the plaster from the wall. Or it may have been gathered up with the mission rubbish and piled on the refuse heap. (See samples from midden and from the mission wall.)

The badly rusted blade of a butcher knife was found on the bottom of the mound, at a depth of 47", 23½ feet inward from the center of the western edge. This, together with similar finds, seems to show that the entire mound was built up during the mission period.

An identical knife blade came from a depth of 20" and 6 feet northward.

A bone bead 2¼" long and 1/8" in diameter was at a depth of 14" in S.W. corner of mound. The ends were ground smooth.

Half of a pair of small scissors were dug out from a depth of 15".

Eleven gar scales were found at a depth of 18". But since they were together and showed no evidence of having been worked, it is not likely that they were used for arrowpoints—as was sometimes the case on the coast. Later, three other gar scales that seemed to have been ground around the edges came to light. It is possible that they may have been used as arrowpoints.

A large glass bead (3/8" long and ¼" in diameter) was found 21 feet inward from western edge and near central part of mound (Goliad crew). Bead came from a depth of 24".

From a depth of 26", and 22 feet inward from western edge near center, came an unusual type of chain. It seemed to be of iron and consisted of three solid bars 1" long and 3/8" wide, with a hole 1/10" in diameter drilled at each end, and small rings ¼" in diameter inserted in the holes to bind the bars together. A fragment of a longer chain (found by Goliad crew). Another of four links from depth of 25" found by U. of T. crew.

An extremely thin sheet of copper was uncovered at a depth of 41" and 23 feet inward from central-western edge.

The preserving qualities of copper were illustrated by the finding of a cloth-covered button from a depth of 16", with the cloth preserved by the copper.

In one case, a fragment of sheet copper was bent around a cow rib, with the result that the bone bore a green color.

Several flakes (about 1" x 1½" x ¼") of gypsum came from the midden deposit at depths near two feet.

An amusing specimen was a badly corroded Jew's harp of the small size. It was discovered at a depth of 42" and about 22 feet inward from the central-western edge of the mound. Although it probably was secured, along with other trinkets, from the Spaniards at the mission, the find calls to mind accounts of early traders who brought in large supplies of Jew's harps, beads, pipes, etc., for exchange with Indians for furs, etc.

A leather boot heel was at a depth of 25", about 20 feet inward from the southwest corner of the excavation.

A few small glass beads were screened from the dirt about 3 feet from the boot heel. Blue and white in color. Depths 3" to 12".

At a depth of 15" was unearthed what appeared to be a copper or brass celt, made from some engraved article of European manufacture. It is 1½" long and 1" wide, ground at one end (and on only one side) to a cutting edge, with the other end slightly rounded.

A flint knife, $2^{5}/_{8}$" long, was discovered at a depth of 4". The scarcity of flint knives here is accounted for by the presence of steel knife blades.

The bottom from what seems to have been a small chinaware cup bore a mark, in red, as follows: [floret shaped].

A piece of "metal-cloth" 7¾" long and 1¼" wide was uncovered at a depth of 10". It has a selvage along each edge that suggests its use in some such manner as for a belt, hat or head band. The strip or band is of a fairly coarse weave and seems to have had a thin copperized covering applied after woven. This covering of metal is to be seen in the form of a thin coating of green. The copper covering tended to preserve the cloth (found by Goliad crew but presented to U. of T.).

A small mano or rubbing stone came from a depth of 16" in the midden. Another at 43".

A number of so-called bone crushers, chipped from flint, were found at various depths [Figure A-5].

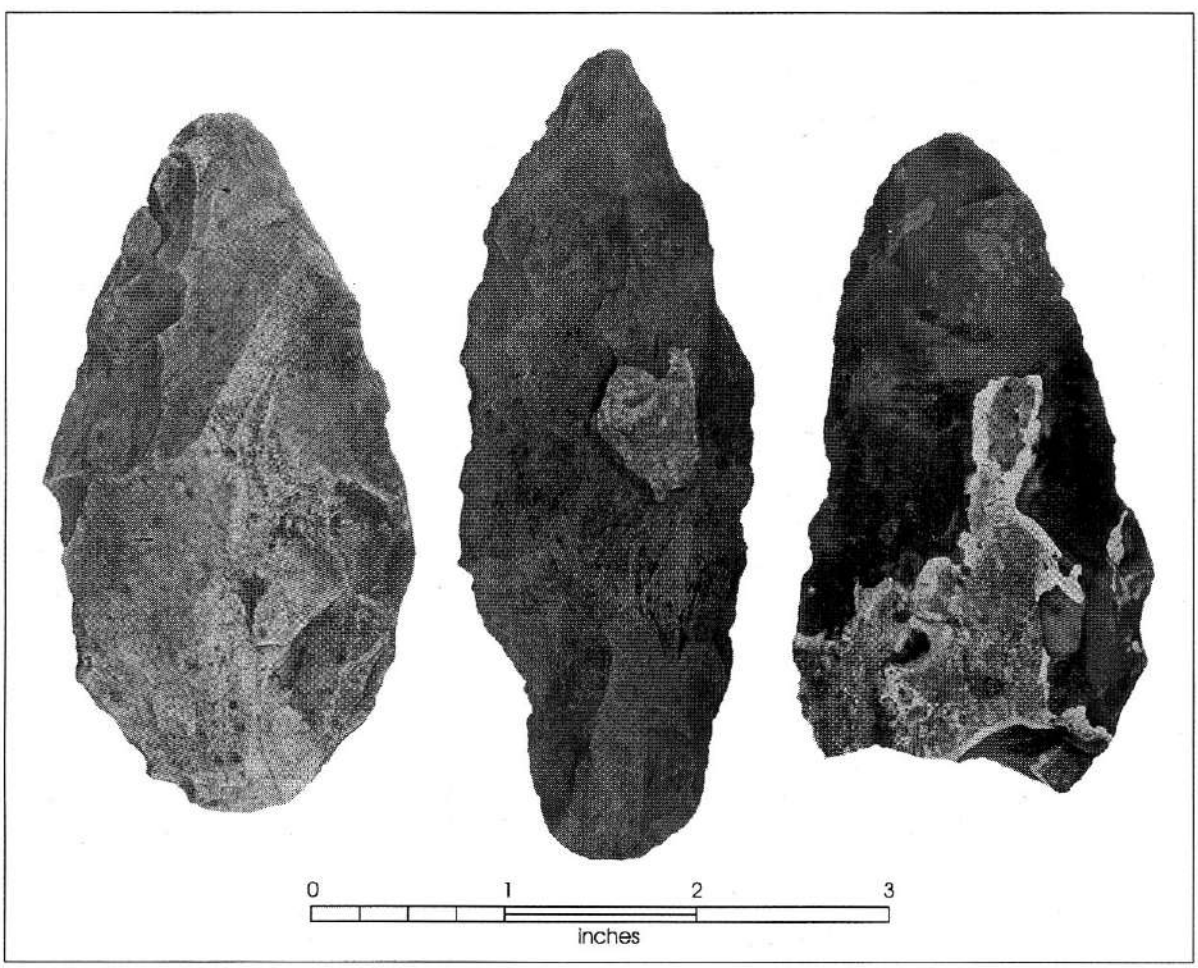


Figure A-5. *Flint bone crushers or crude axes.* Courtesy TARL, UT-Austin, photo 41GD1-55.

A brass strip (bearing engraved design) from a gun came from a depth of 12" at the northern edge of the mound.

A small Spanish "tear-cup" came from a depth of 38". It has a part of the bowl missing but can be reconstructed. It is 1½" high and about 1" in diameter.

A small shell pendant or bead made from freshwater mussel shell was shaped as follows: [see Figure A-6]. It bore two drilled holes near one edge. Found at a depth of 10". Another found by Goliad crew.

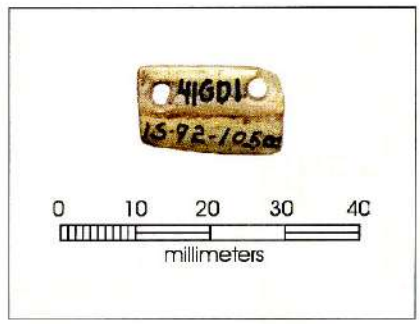


Figure A-6. *Pendent or bead made from freshwater mussel shell.* Courtesy TARL, UT-Austin, cat. number 1S-92-105A.

Shell beads of various kinds [Figure A-7].

Another rusty butcher knife blade came from a depth of 32" in southern edge of mound.

Eleven additional trade beads were found in southern part of mound at depths ranging from 22" to 25". The colors are red, white and blue.

Some 50 lumps of red and yellow ocher, most of which showed no evidence of having been ground on for making paint, were found in the north-central part of the mound at depths ranging from 15" to 36".

A shell bead of the type included in A. R. Shearer Collection in Anthropology Department Museum from Chambers County, Texas, was found (by Goliad crew) at a depth of 15". *Panoma* or *Olivia* shell. A long bone bead, like one previously reported, came from a depth of 4". Also the point of a bone awl. (Both of latter found by Goliad crew.)

Flint knives were shaped as follows: [see Figure A-8].

Miscellaneous finds in northern part of mound were:

Four-pronged fork
Engraved buckle
Copper disc, with hole in center
Gun hammer
Gunflint [Figure A-9]
Mano stone, small
Bone crusher
Bone bead 4⁹/₁₆" long

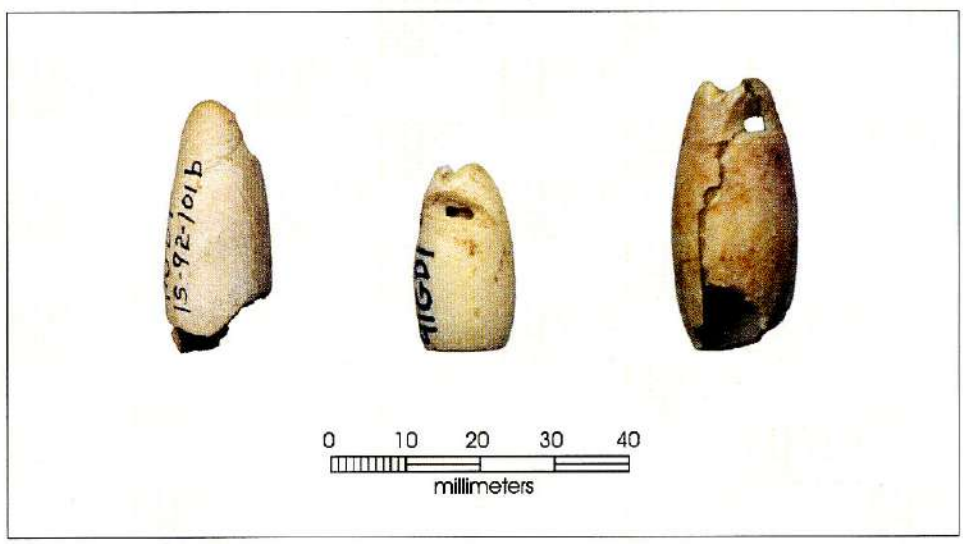


Figure A-7. *Shell beads recovered from midden.* Courtesy TARL, UT-Austin, cat. numbers, left to right, 1S-92-101B, -101C, -101E.

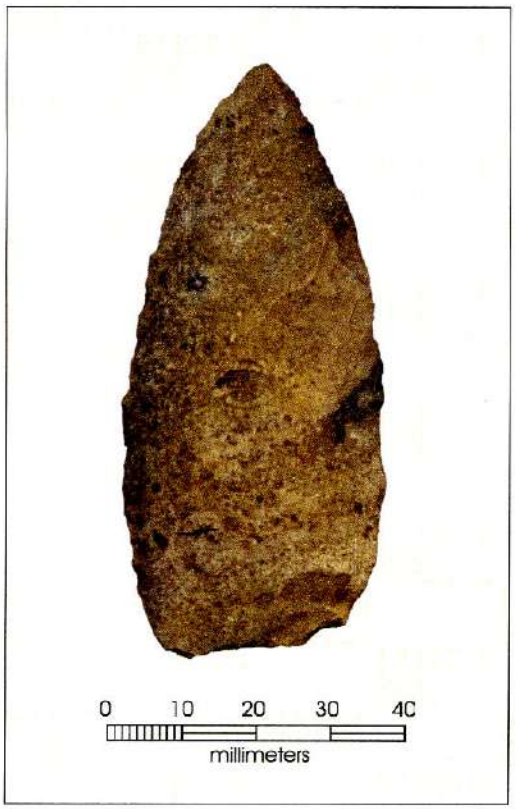


Figure A-8. *Flint knife recovered from midden.* Courtesy TARL, UT-Austin, cat. number 1S-92-28A.

Goliad crew:

End of bone awl
2 *Panoma* shell beads

Two buttons bearing eagle such as on U.S. Army buttons. One says (on back) "Waterbury Button Co."; other reads "Scovill Mfg. Co., Waterbury". Found at depth of 6" in northern part of mound (Goliad crew). Another found by U. of T. crew.

The mouthpiece of a trumpet or bugle came from a depth of 8" (Goliad crew). Another Jew's harp, slightly larger than other and in somewhat better condition. Found at depth of 18" (Goliad crew).

Miscellaneous small finds in southern part of trench were: arrowpoint; scrapers; spoke shaves; flint knives and gouge; small brass pendant with blue glass set, depths 3" to 21". Hand-hammered copper hook. A fragment of a long, square pestle or grinding stone of volcanic rock came from 20" in south edge of mound. It is 4" long and 2" square.

A tiny copper container, with about the same capacity as a tablespoon, but with a band bearing holes for attachment to wall, came from 26", northern edge.

Copper hooks, that appear to have come from rims of vessels, were found at various depths. They bear a flat base, with two holes for bradding to vessel rim, are curved and have a slightly sharpened and rounded end to the hook—resembling modern clothes hooks used in closets. The copper hooks probably served to fasten a circular wire and bail by which the vessel was suspended.

More than half the flint scrapers are of the end type, many of them long and narrow. Some are circular and used all around. Others are side scrapers.

At a depth of 16" near center of mound was the torso of a small figurine saint. Arms and head broken off; also below waist. Spanish origin. Length 1¾"; width across shoulders 1½", Black inside and red outside; no tempering material. The figure has a cape or mantle over shoulders (Goliad crew).

A small straight pin, with a head slightly larger than our modern brass pin, came from a depth of 24", in south edge of mound.

From a depth of 15", near center of the mound, came a well-made bone awl 3⅞" long, ¼" thick and of an average width of ½". In the large or butt end is a notch ⅛" deep. The implement seems to have been made from the cannon bone of a deer. Bone awl 3" long from depth of 3", south edge of mound. The sharp end of another bone awl came from a depth of 12" in south edge of the mound. These bone awls are thicker, the points are not so sharp nor are they as well polished as the awls from Site #1 Seminole Canyon, Val Verde Co., TX (see Bul. 3327 U. of T.).

Two additional fragments of pestle stones of volcanic material came from 10" and 25" in south edge of mound.

A fragment of a watch case of the closed-face type came from a depth of 33".

A freshwater mussel shell roughly chipped to a point at the small end suggests its use as a spoon. It came from a depth of 17" in south edge of mound.

From a depth of 6" was uncovered a small silver coin (about the size of our dime). On one side was a coat of arms, still

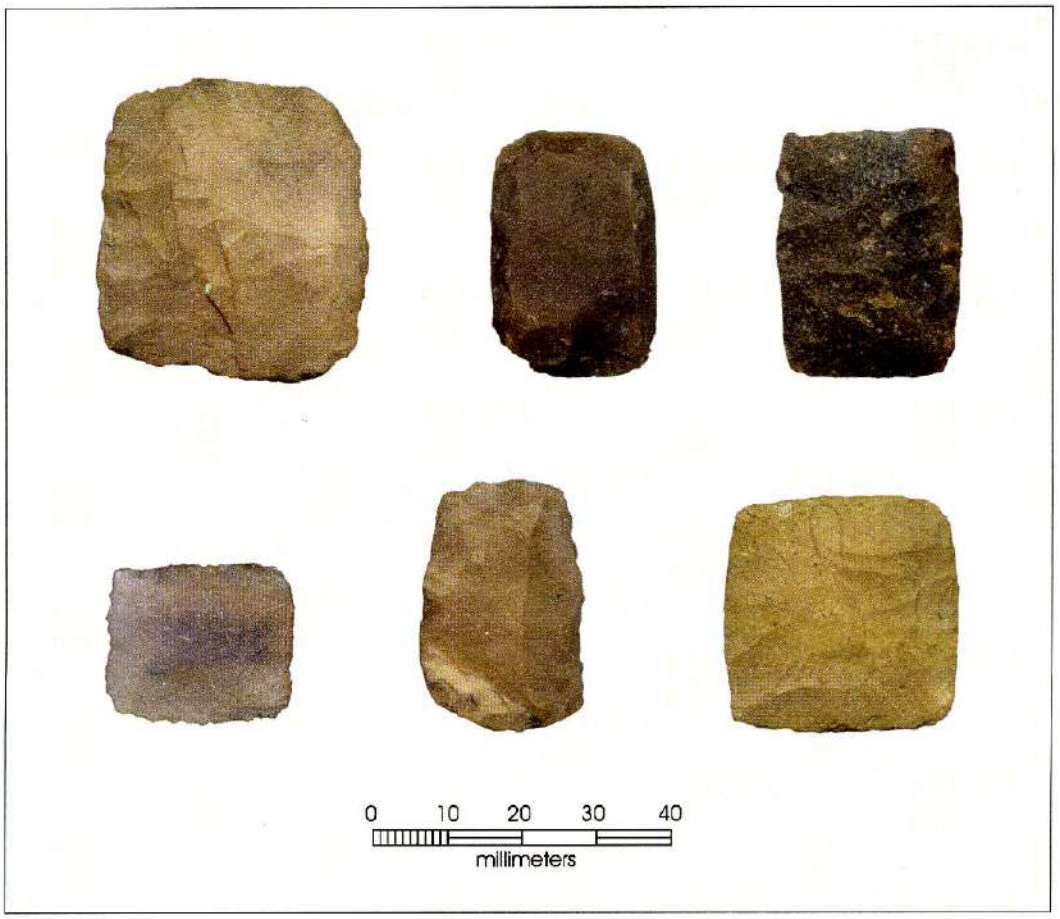


Figure A-9. *Gunflints of various sizes recovered from midden.* Courtesy TARL, UT-Austin, cat. numbers, left to right, (top) 1S-92-69B, -70T, -69D, (bottom) -69C, -70P, -69A.

very legible, and encircling it was, as nearly as can be deciphered, the following: "Hispana Ind. R.M." On the other side was a superscription accompanied by the following: "Dei Gratia Carolos III" [Figure A-10a].

Two extremely thin, circular, coin-like objects (found by the Goliad crew) were much like one previously described, except that the wording was different. These two had small hole punched in center of each—perhaps for converting them into beads. On one of them was: "D.G. Rex"; on the other one was: "I.C. Relc", also head. Depths 30" and 26".

A metal dagger or knife, with a part of the wooden (?) handle intact, came from a depth of 26", in south part of mound.

A brass breast pin with 4 sets came from a depth of 18". A round lead medallion with a hole at edge and bearing a coat of arms, came from a depth of 32". A large iron door key, 6½" long, came from a depth of 36"; and was exchanged to Goliad crew for short pieces of fiber cordage.

The cordage, from a depth of 31", was of the 4-strand braided type of workmanship. Seems to have been made from a large fiber or grass-like material. The combined length of three fragments is 5". Possibly lechuguilla fiber, but that plant does not grow here. The fiber is larger than that of the Spanish dagger which grows locally. The fiber may be from local bull nettle plants.

A number of long bone beads, or possible pipe stems, came from depths ranging from 25" to 44". They vary in length from 2⅝" to 4⅜" and are about ¼" in diameter. They were cut and smoothed at the ends. They appear to be from bird bones [Figure A-11].

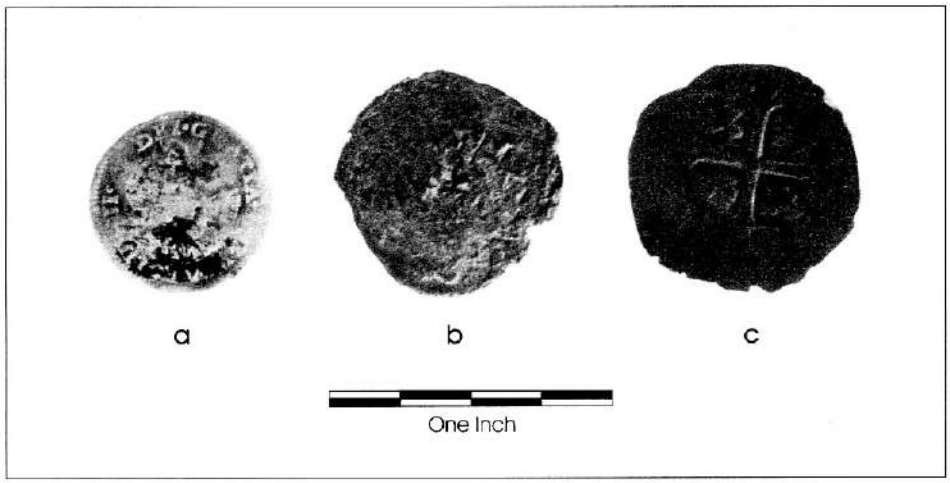


Figure A-10. *Coins from Espíritu Santo Mission and Webb Island, Nueces County.* (a) Spanish one real piece of Charles III, 176–1788. Found at a depth of six inches in midden deposit at Espíritu Santo Mission. (b) Poorly preserved, unidentifiable coin from Webb Island, Nueces County, Texas. (c) Spanish coin of uncertain date but probably struck about 1700. From Webb Island. Coins identified by Mr. Belote, Curator of U.S. National Museum, Division of History, Washington, D.C. (memorandum from Mr. Belote to Mr. Setzler, February 21, 1934). Courtesy TARL, UT-Austin, photo 41GD1-60.

The pointed end of a well-chipped glass arrowpoint was found at a depth of 22". It is made of green bottle glass. It, at present, measures 1 3/16" long and ¾" wide where broken. This find tends to verify reported finds of glass arrowpoints on the Gulf Coast.

A bone awl, from a depth of 30", bore a well-marked point and was made from the rib of a cow. The awl is 5" long [Figure A-12].

A fragment of a sandstone metate came from a depth of 31". It is one of the few metates from this site made of local stone.

Among miscellaneous metal articles were a brass belt buckle; part of candle snuffers or scissors; and two small brass vessel-like objects, 2½" in diameter, with hole in bottom and two projections or knobs on rim. Also several articles of brass jewelry with glass sets, at depths of 18" to 24".

A flint knife, 5" x 1¾" x ½", was found at a depth of 32" (by Goliad crew). From a thickness of ½" in the central part, the blade was chipped down to very sharp edges. The flaking was well done and is the outstanding piece of flintwork at this site. It tapered toward each end.

At a depth of 10" were found fragments of a Spanish plate of a gaudy combination of colors. Enough of the parts were present to reconstruct. Diameter of the plate was 8 3/8" and the depth was approximately 2" (found by Goliad crew).

At a depth of 48" was found (by Goliad crew) a complete spur rowel of six points and 3¾" in diameter.

Several large glass beads, one slightly over ¼" in diameter, were found at depths ranging from 18" to 40". These large beads were almost round.

The sharp end of a bone awl (1¼" long) was unusual in that it was square instead of round. It came to a very sharp point and was well worked. Found (by Goliad crew) at a depth of 24". Another bone awl, 2 1/8" long and 5/8" wide, came from a depth of 25".

A small brass thimble, still in good condition, was found at a depth 11" in the S.E. part of the mound, some 15 feet west of wall [Figure A-13].

The finding of numerous flint scrapers would seem to indicate that the primitive method of scraping hides was still practiced by these Indians [Figure A-14].

Figure A-11. *Bone beads with ends ground smooth.* Courtesy TARL, UT-Austin, cat. numbers, left to right, (top) 1S-92-108G, - 108F, -108C, -108K, (bottom) -108J, no cat. number, -109B.

[Figures A-15 and A-16 show additional lithic tools presented in original manuscript.]

The presence of a number of bone awls likewise showed a tendency to continue the use of certain other Indian-made implements.

A matted ball of small tinsel-like flat wire (some 1/16" wide) was found in the east-central part of the mound at a depth of 18".

Three links of iron chain were found (by Goliad crew) at a depth of 6". Each link was in the form of the figure "8".

Several disc beads, from ½" to ¾" in diameter, made of mussel shell, and very thin, were found at depths of 16" to 40" in the midden deposit [Figure A-17]. One hole in center.

A few *Panoma* (*Olivia*?) shells were found. Most of them had been ground off on the closed end and had a groove ground through near the other end, converting them into beads. Found at various depths in the mound.

Figure A-12. *Bone awls. It will be noted that all these awls are crude and show very poor workmanship. This is in striking contract to the beautifully made bone awls found in prehistoric rockshelters in the Pecos-Rio Grande region of West Texas.* Courtesy TARL, UT-Austin, cat. numbers, left to right, 1A-92-112A, -114E, -113B, -112B.

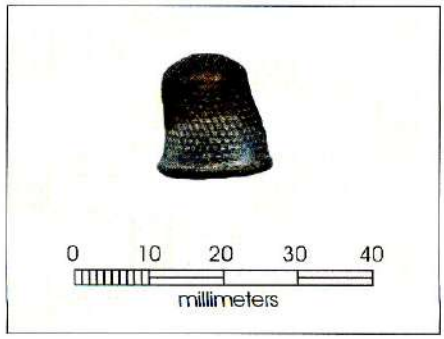


Figure A-13. *Brass thimble recovered from midden.* Courtesy TARL, UT-Austin, no cat. number.

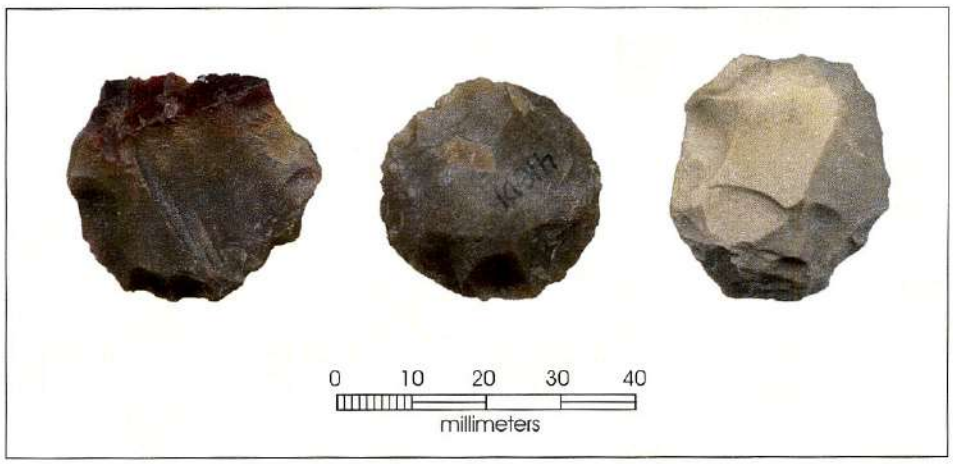


Figure A-14. *Small flint scrapers recovered from midden.* Courtesy TARL, UT-Austin, cat. numbers, left to right, 1S-92-57J, no number, -58C.

Figure A-15. *Flint spoke shaves or drawing knives.* Courtesy TARL, UT-Austin, photo 41GD1-50.

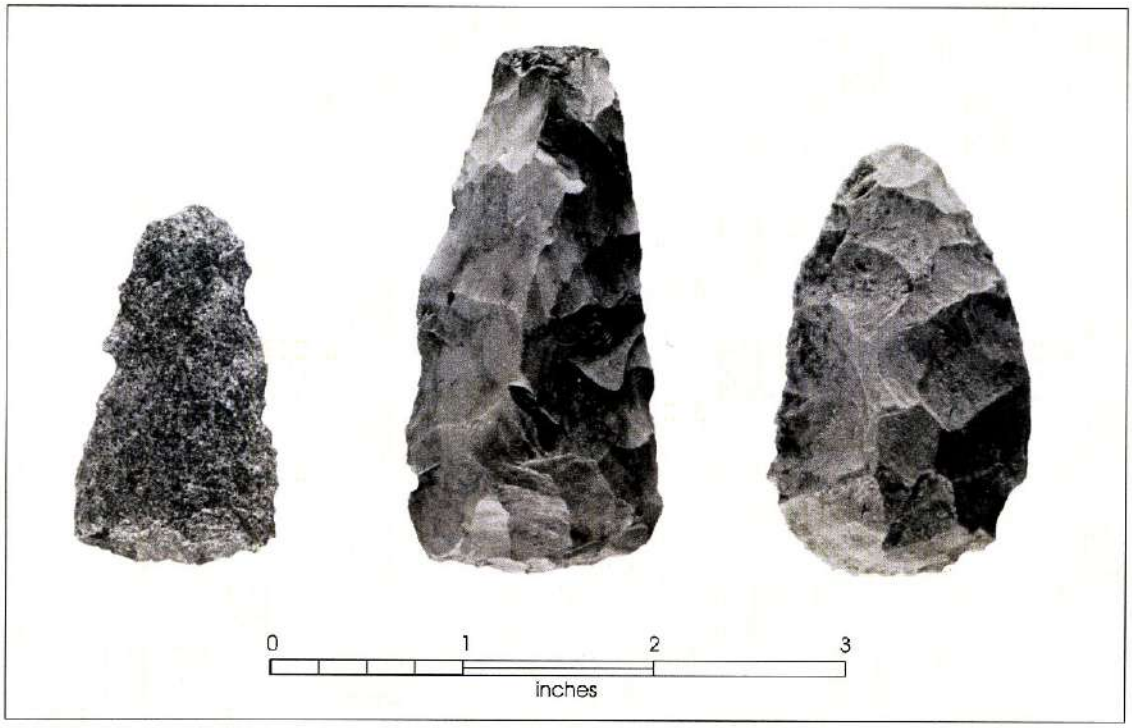


Figure A-16. *Flint spoke shaves or adzes.* Courtesy TARL, UT-Austin, photo 41GD1-51.

Brass buttons, both large and small, turned up in considerable numbers and from all depths. Some were decorated; others plain.

A small, flat metal insignia shaped to represent a bugle was found near the surface (by Goliad crew). Extreme length is 5½" and width is 1½".

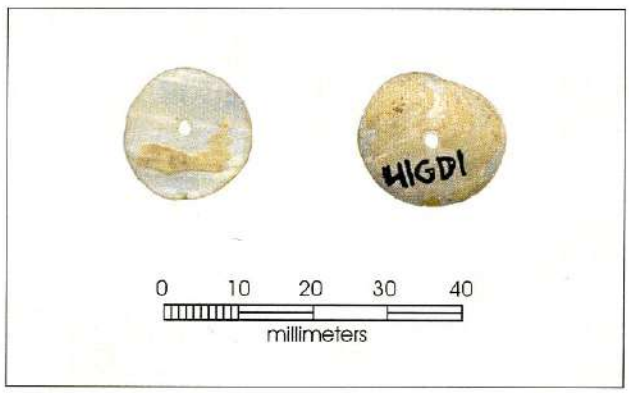


Figure A-17. *Drilled disc beads made from mussel shell recovered from midden.* Courtesy TARL, UT-Austin, cat. numbers, left to right, ATJ 876, 1S-92-105B.

The upper metal portion of a badge, with small ring at top and "teeth" for securing a ribbon beneath, came from a depth of 22".

Another small "bugle," a duplicate of the one [recovered by the Goliad crew], came from a depth of 3" in north edge of the mound [Figure A-18].

At a depth of 12", in eastern part of the mound, was found a small chipped flint ax, notched around center for hafting. It was shaped as illustrated in photograph, "a" [Figure A-19].

This specimen greatly resembles certain double-bit, chipped axes from Bowie County, Texas; Miller County, Arkansas; and adjoining regions.

From a depth of 38" there were screened, along with glass beads, a jet set about ¼" square and ⅛" thick. Two holes ran at angles across corners of the stone.

A crudely made rib-bone awl came from a depth of 11". The point was rounded but not sharp. Part of the upper end was missing.

Figure A-18. *Flat, metal bugle insignia recovered from midden.* Courtesy TARL, UT-Austin, cat. number 1S-92-143.

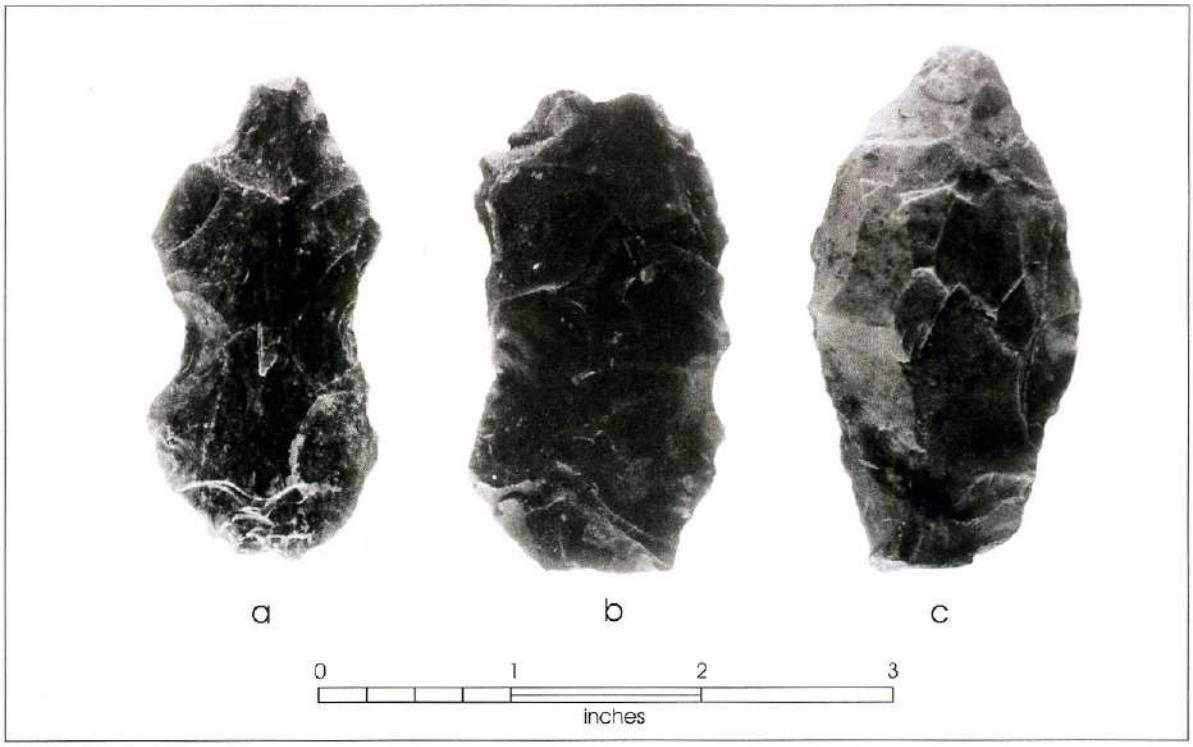


Figure A-19. *Flint blades, probably hafted for use as axes.* Courtesy TARL, UT-Austin, photo 41GD1-53.

Several mussel shells, some pierced and others not pierced for hafting, show signs of use as hoes or digging implements. This in spite of the fact that hoes were furnished by the mission. Contrary to the case in N.E. Texas, the mussel shells at Goliad that show most unmistakable evidence of use for digging are the ones that were not pierced for hafting—although they were large shells. The ones that have holes punched in them near the center are almost invariably medium-sized shells and show only slight wear at the sharp end. They may have been strung for use as rattles.

A small abrading or grinding stone, of fine, hard sandstone, came from a depth of 18". It is approximately 3¼" x 2½" x 1¼", and bears 21 grooves or abraded lines. These probably were worn in the stone incident to sharpening bone awls, etc. [Figure A-20].

What appeared to be the remains of metal cloth came from a depth of 24" in the midden deposit. Unlike the other metal cloth found at this site, these fragments show a foundation of flat, thin copper spring-like wire, with the remains of cloth over it. The fragments are in a very bad state of preservation.

Half of the iron bit from a bridle had been ground down to a sharp point, apparently for use as an awl or punch. The other end has the small loop or ring intact.

From a depth of 19" came a copper tube 3" long, ¾" in diameter at one end, and coming to a slightly and crudely sharpened point at the other. This probably was used as a spear tip, in lieu of a flint spearhead. Similar specimens were found in historic site at Garrett Bluff on Red River, Lamar County, Texas.

A pair of small scissors, complete except for part of the finger loops, came from 29".

At a depth of 34" was a strip of metal cloth or ribbon, measuring 62" in length and 1¼" wide. It was wound about and in a fragmentary condition—part of it resting on a cow bone [Figure A-21]. At 29" another strip 7" long was found.

A small glass pendent, with hole lengthwise through the center, was found at a depth of 16". A brass breaststrip, with 5 glass sets, came from 25". A small, crudely bent brass

Figure A-20. *Mano stones. Note the carved notches on the rectangular stone.* Courtesy TARL, UT-Austin, photo 41GD1-59.

ring was unearthed at 10". Inside diameter was only 3/8". Width 7/16". All at S.E. edge.

At N.W. edge, nearest river, from depth of 3" came a brass finger ring and a metal "butcher" knife, blade 7¾" long and 1¼" wide. The ring was a plain band, without set, with inside diameter of 5/8". Near the ring was a well-chipped flint spearhead.

In the eastern edge of the mound was found a large spur rowel with six long shanks [Figure A-22]. Depth 40". (Much like one found by Goliad crew.) Diameter of rowel was 3¾".

At a depth at 36" was a small lump of sulphur, about ¾" square. This may have been used by the Spaniards in the manufacture of gunpowder.

At a depth of 32" in S.E. part of mound was encountered top of a hand-hammered copper chisel or dagger-like implement. The top was battered from driving blows and the sharpened lower end was imbedded 2½" in the limestone shale of bedrock. It bore two holes near the center.

A fragment of an old-fashioned slate came from a depth of 14".

At a depth of 25" was found an alligator's tooth, ground off at the root end, hollowed out, and a small hole drilled through one side—thus forming a tooth-pendent (Goliad crew). Length, 17/16", diameter at cut end, 3/8".

From a depth of 30" came a small strip of metal cloth. This, however, is different from the other metal cloth in that the metal is silver instead of copper. Bad condition.

Several rifle shells and a few so-called "Minnie balls" came from the upper 8" in various parts of the mound.

A complete pair of scissors, badly corroded, came from east-central part of the mound (found by Goliad crew).

From a depth of 5" came an article of hammered steel 1/16" thick, 4¼" long and 2 3/8" wide, shaped like the figure "8". Possibly used for striking fire with flint; or may have been a link in a large chain (Goliad crew).

Many fragments of what appeared to be parts of copper vessels, some bearing brads or brad holes, were found at all depths. Also numerous small scraps of copper. These

Figure A-21. *Metal cloth in place in midden mound at a depth of 34". Note bone.* Courtesy TARL, UT-Austin, photo 41GD1-6.

latter were not cataloged and no record kept as to the exact number found.

A knife, chipped from petrified wood, came from a depth of 30" in the east-central part of the mound.

Several large square nails had been flattened at the lower end and ground sharp, probably for use as an awl or gouge.

A well-shaped mano of the kidney type, split in two lengthwise, came from a depth of 24". It is much like ones found in burnt rock mounds of Central Texas.

Figure A-22. *Large spur rowel recovered from midden.* Courtesy TARL, UT-Austin, cat. number 1S-92-204.

Figure A-23. *Glass trade beads of various colors recovered from the midden.* Courtesy TARL, UT-Austin, cat. number 1S-92-107B.

Another spur rowel, depth 19", was smaller than others; being six-pointed, but only 3" in diameter. The Indians were learning to ride and become vaqueros.

An iron pin 6" long, with a 1" ring at top and other end sharp, came from a depth of 19".

Intermixed in the dirt along the N.E. edge of the mound were many glass trade beads—more than found in any other portion of the mound. The beads were red, white, blue, green and various other hues [Figure A-23]. They ranged in size from ones so tiny that a single strand of fine thread would scarcely penetrate the holes to ones as large as a black-eyed pea. There were, however, very few of the large beads.

At a depth of 30" was uncovered a badly rusted steel ax. It was like the ax part of the modern grubbing hoe, but did not have any hoe attachment on opposite side. Length of blade 4", width 2½".

An iron spike, sharp at both ends, and 7" long, came from a depth of 30". It had 4 flat sides and tapered in size gradually from center to each end.

A brass letter "H", 1" high and 1" wide, came from a depth of 18" in N.E. part of mound.

A Mexican pestle or rubbing rock of volcanic stone, with one end broken off, was found at a depth of 26". It is 4½" long, 2¼" wide, and 1½" thick, with two pits on each edge, two on one side and one on the other, making a total of 7 pits, ½" in diameter and ¼" deep [Figure A-24].

Flakes of gypsum, ranging in size from 1" x ½" x ⅛" to 2" x 4" x ½", came from various depths in east part of the mound.

An unusual object, broken from a vessel or pipe, came from a depth of 30". It may have been a pitcher spout, or possibly a pipe stem. It is 1¾" long, tapers in size from 1" to ⅜" and has a small hole running through it. Does not seem to be of Indian manufacture.

About ⅓ of a small Spanish bowl bearing a glaze was found at a depth of 23" in southeast part of mound, some three feet west of stone fence.

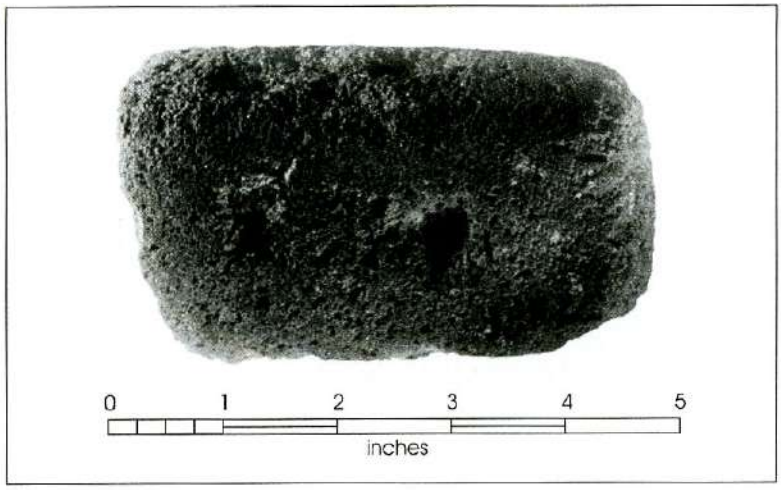


Figure A-24. *Pitted rubbing stone of Spanish or Mexican origin.* Courtesy TARL, UT-Austin, photo 41GD1-40.

Jewelry and Ornaments

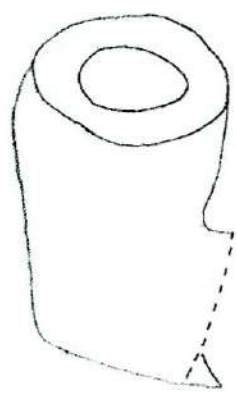
The Indians' love for personal adornment is strikingly illustrated by many finds in the camp refuse at this mission site. Chief among these were beads, buttons, finger rings, pendants, etc. Many of the articles were of European manufacture; but others represented the primitive arts. They are discussed in connection with midden finds.

Earthenware Specimens

The ceramic art seems to have been practiced quite extensively by these mission Indians. Among specimens of this type are pipes, bowls, a ladle, a vessel rest or stand, a candle holder, pot handles, pottery discs and pottery game pieces.

Pipes: The mission Indians at Aranama were smokers. This is proved by the finding in the camp refuse of seven clay and one stone pipe—all in certain degrees of breakage. In addition to these Indian pipes there were fragments of three stems from trade pipes.

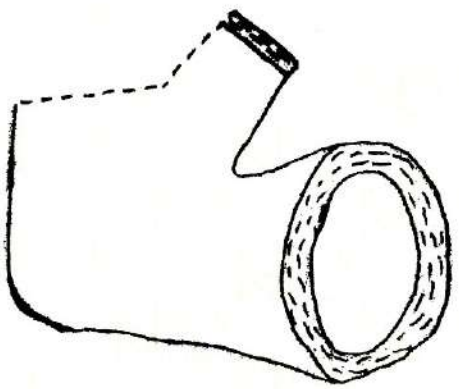
At a depth of 7", near the southwestern edge of the mound, was found an earthenware pipe with most of the stem missing. The bowl, in good condition, measures 1⅜" outside and 11/16" inside diameter; height, 2⅛". Pipe undoubtedly of Indian manufacture. Somewhat crude, and slightly resembles the heavy elbow pipes of the Red River region of N.E. Texas. Shell tempered. A rubbed polish, but no glaze. Very heavy due to the thickness (⅜") of the bowl wall. There is a trace of asphalt on the outside of the bowl [Figure A-25]. A rough sketch of the bowl is shown below:



At a depth of 30", and some halfway between the center and southern edge in the western part of the mound, was a clay pipe. The specimen was restored, since all the stem and enough of the bowl to show its length and size remained. The stem flares outward at the end; is 1¾" long, has an outer diameter of 1 1/16" and inner diameter of ⅝". The specimen is rather crudely made and shows shell tempering material. The portion of the bowl that is intact shows it to

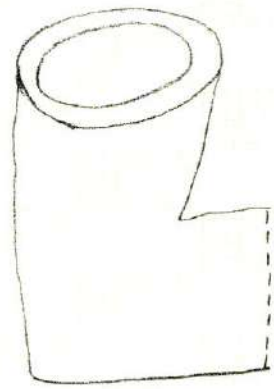
Figure A-25. *Clay pipe of unusual thickness. Restored. Note the tempering material.* Courtesy TARL, UT-Austin, cat. number 1S-92-119A.

have flared somewhat and that the rim of the bowl was only 7/16" from the upper rim of the stem. The stem hole is conical and would not seem to readily lend itself to the insertion of a reed or other separate item. On the other hand, the stem is so shaped that it could scarcely have been smoked without an auxiliary stem. A rough sketch of the pipe follows.



The stem of a trade pipe was also found nearby.

At a depth of 19" in north edge of the mound was a clay pipe of the elbow type. No decoration; shell tempered. The diameter of the bowl was as follows: outside, 1"; inside, 9/16". Stem partly missing, so that length uncertain. Bowl and stem approximately same size. Shaped like certain elbow pipes from Wood County, Texas (found by Goliad crew).



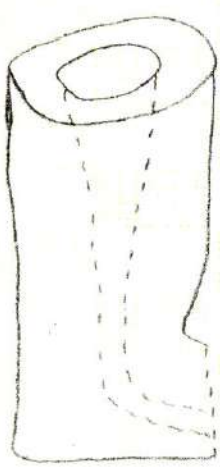
At a depth of 18" was a pipe made of steatite or soapstone of a grayish color [Figure A-26]. A piece was missing from the bowl and another from the stem, but the specimen was easily reconstructed in the field. The pipe has a round, half-spool shaped bowl and a triangular stem with the rear end curved upward like the bow of a boat. Height, 2 3/8"; length, 1¾". Diameter of bowl outside, 1¼"; diameter of stem, 1". Stem hole, 9/16" in diameter. The shape slightly resembles that of a metal tomahawk pipe. Probably Indian workmanship; but faint striations suggest the use of metal tools.

At a depth of 40", in the N.E. part of the mound, was the bowl of a clay pipe of the elbow type. The clay was heavily tempered with shell. Outside diameter of bowl was 1 5/16"; inside diameter, 5/8". The wall is quite a bit thicker than those of the other pipes from this site. The bowl-hole was conical. Stem missing. (Specimen found by the Goliad crew.)

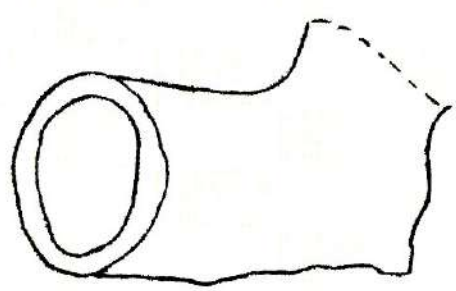
Another bowl of a clay pipe came from a depth of 22" (found by Goliad crew). Height of bowl, 2"; outside diameter at top, 1 7/16"; inside diameter, 5/8". Shell tempered. Apparently of elbow type. No encrustation or other evidence of smoking.

Figure A-26. *Pipe made of soapstone (steatite) of a grayish color. Found at a depth of 18 inches in the midden deposit. The marks of metal tools may be seen. The shape slightly resembles that of a metal "tomahawk pipe" used by traders in some regions.* Courtesy TARL, UT-Austin, cat. number 1S-92-122.

From a depth of 25" came part of a pipe stem 1½" long and 1" in diameter. Shell tempered. Part of another stem and most of a pipe bowl, found near eastern edge of the mound, were also shell tempered.



At a depth of 16" was found a clay pipe with most of the bowl missing. It is of Indian manufacture, shell tempered, no decoration and somewhat crudely made. The broken bowl reveals a black encrustation about 1/16" in thickness. The large stem is complete and strikingly like those of certain pipes found in N.E. Texas. Outside diameter of the stem is 1 1/8" and inside is 11/16". The stem hole maintains approximately the same size for a distance of 13/16", at which point it abruptly decreases to 1/8". At the base of the bowl is a ridge running halfway around and protruding 1/8". The shape of the stem was as follows:



There is evidence of asphalt on the outer surface [Figure A-27].

At a depth of 29" was another clay pipe, small and slightly trumpet-shaped. It is whole except for about ¼ of the stem which has been reconstructed. Height, 1½"; length, 1½"; outside diameter of bowl, 7/8"; inside, 5/8"; outside diameter of stem, 13/16"; inside, 3/8". Shell tempered and fairly well-made. It gives the impression of having been made in tubular form and then bent while still plastic [Figure A-28]. Inside the bowl is an encrustation of black material, resulting, no doubt, from continued smoking.

Figure A-27. *Crudely made, shell tempered, clay pipe (restored). Black encrustation in bowl.* Courtesy TARL, UT-Austin, cat. number 1S-92-119B.

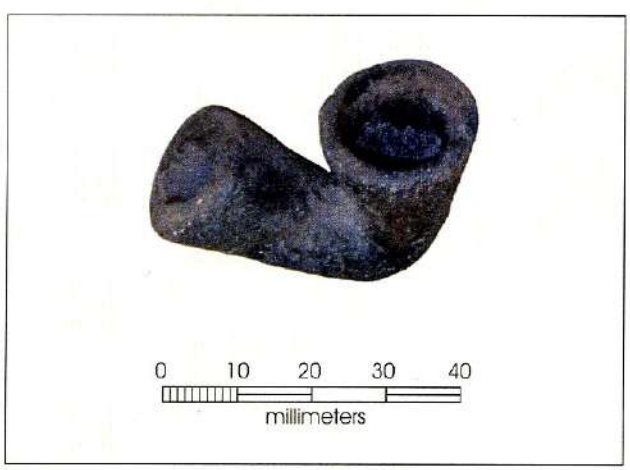


Figure A-28. *Small clay pipe, slightly trumpet-shaped. Shell tempered and fairly well made. Black encrustation in bowl of pipe.* Courtesy TARL, UT-Austin, cat. number 1S-92-120B.

What appears to be the bowl of a tiny pipe was found at a depth of 6". It is made of clay, shell tempered. The back and sides are flattened; and an incised line runs around the bowl ¼" from rim. Height of bowl, 1 1/16"; outside diameter ¾"; inside, 3/8".

Bowls: Judging from fragmentary vessels recovered, and from potsherds observed, it would seem that the bowl was the moat common type of earthenware vessel of Indian manufacture at Aranama Mission. Of five broken bowls found was one easily restorable. The others have numerous parts missing. The finds of earthenware vessels of Spanish manufacture are recounted elsewhere in this report.

Near the northwestern edge of the mound were found (by the Goliad crew) some 12 or 15 small fragments of the same vessel. The thing of interest about the find was the presence of two large handles. One, complete and attached to a fragment of the vessel, was about ¾" in diameter, semi-circular in shape and attached to the body of the vessel after the manner in which handles appear on modern cups. The ware was of yellow clay, shell tempered, crudely made and not polished or glazed. The heap of potsherds rested immediately beneath a pile of buffalo bones, at a depth of 10". The second handle was broken, but all present. All the fragments found would not combine to make more than one-fourth of the original vessel.

The most unusual and important find made at this site consisted of a badly broken bowl; found at a depth of 18", with fragments scattered for a distance of some two feet [Figure A-29]. In a fire pit, with charred bone adhering to a few sherds. Shell tempered. The vessel was reconstructed in the field [Figure A-30]. It is 8½" in diameter and 4½" tall. No decoration. It is of a fairly well-fired, blackish clay. It bears a resemblance to certain undecorated vessels from burial sites in Northeast Texas.

About 2/3 of a tiny but thick bowl of yellow clay came from a depth of 18". From 15" came about ½ of another tiny bowl.

About ½ of a medium-sized bowl was found inverted and crushed, at a depth of 6" in north side of mound (Goliad crew).

A badly fragmented bowl or pot was encountered at a depth of 25" [Figure A-31]. The fragments (several hundreds in

Figure A-29. *An earthenware bowl, broken and scattered, as found at a depth of 18 inches in excavations. Note the animal bones at the extreme right.* Courtesy TARL, UT-Austin, photo 41GD1-7.

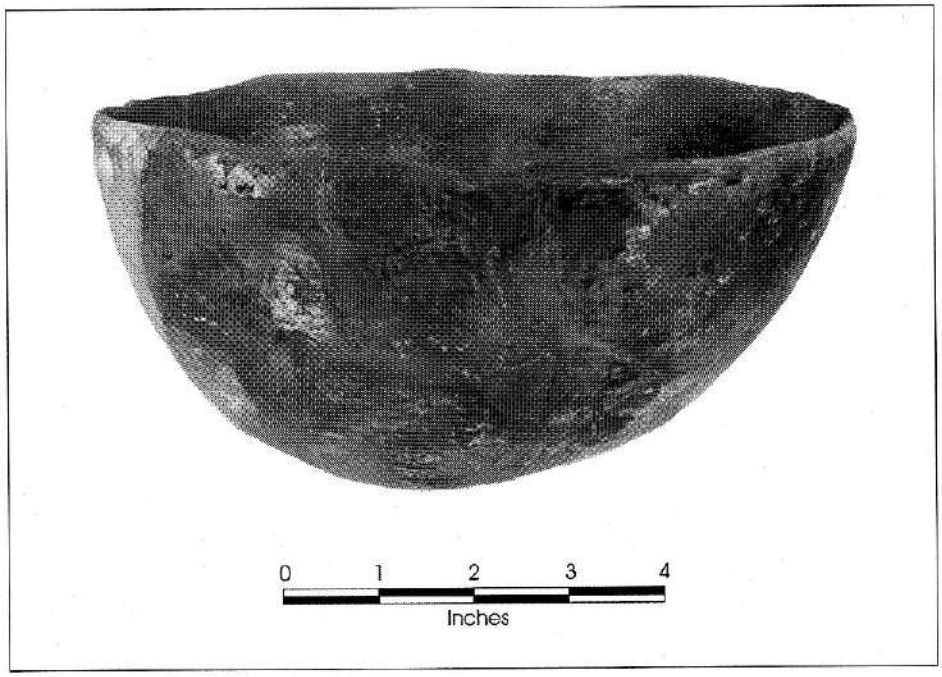


Figure A-30. *Earthenware bowl restored from fragments. Found at a depth of 18 inches in midden deposit.* Courtesy TARL, UT-Austin, photo 41GD1-39.

Figure A-31. *A badly fragmented vessel in midden deposit at depth of 25 inches.* Courtesy TARL, UT-Austin, photo 41GD1-8.

number) were very small, the largest being some 2" x 3" and the average about 1" x 1". It has two handles, one of which was unbroken. It appears that about one-half of the vessel is missing.

Potsherds: The potsherds in the midden deposit here are very numerous, the quantity per square yard being about the same as in the average N.E. Texas midden deposit at a large campsite. The quantity here, however, is not as great as at the L. L. Winterbauer site, Wood Co.; A. C. Saunders site, Anderson Co.; or Mrs. Minnie Garrison site, Wood Co., Texas. Unlike the coastal region, the potsherds here in the Aranama midden are not so small and badly fragmented. Their average size is about 2½" x 3½" with many as large as 4" x 5". This situation also corresponds closely with that in N.E. Texas.

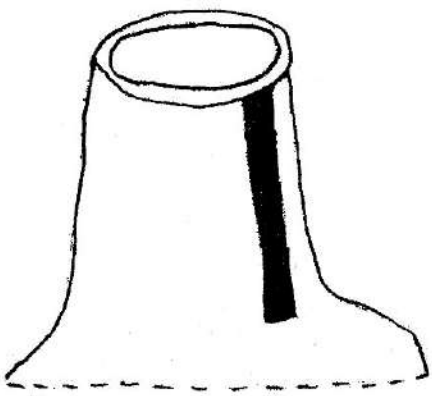
In addition to European pottery bearing a glaze on both sides, there appear occasional potsherds bearing a glaze on one side only; the other side appearing identical with pottery of Indian manufacture. This combination raises a question as to whether or not the Spaniards taught the Indian potters the art of glazing, and whether, in applying the newly acquired technique, the Indian potters retained a part of their old methods.

Two potsherds bearing holes drilled halfway through suggest two possibilities: (1) The sherds broke and the drilling was abandoned; (2) Holes purposely drilled halfway for inserting a bail to the vessel, perhaps using a bail from a Spanish bucket.

It is also worthy of note that very few potsherds found in the Aranama mound bear asphalt; while a considerable number of those found at San Rosario Mission, only a few miles distant, have a coating of asphalt on one or both sides—just as is the case at Webb Island and many other Texas coastal sites.

A probable explanation of the differences lies in the fact that the Karankawas (Carancoguases), who are credited with having made the small scrapers and the coastal pottery that bears asphalt, had a number of members of their tribe in the San Rosario Mission, while none of them was in Aranama (Espíritu Santo) Mission.

From a depth of 10" came the neck of an earthenware bottle. The neck, which is 1¾" long, is crudely made of yellow clay, tempered with shell. The outside diameter at the rim of the neck is 1"; but the neck flares rapidly as it goes down. At the point where the neck broke there is evidence of a handle on each side. Running vertically from just above the handle to the rim was a stripe or band painted in asphalt. There was a like stripe on the other side. (Goliad crew). The shape of this clay bottle neck is suggestive of a modern glass bottle neck.



The white, flaky tempering material, which shows so prominently in many sherds, was at first though to be crushed shell. But, on more careful examination under a small 10x glass, it seems probable that the temper may be bone or crushed limestone. Some of the Spanish bricks from this and the San José Mission at San Antonio disclose the same small white lumps as found in the pottery. This would seem to suggest crushed limestone—as the Europeans likely would not have used shell or bone. A fairly white limestone is to be found along the river bank near the mission. Laboratory tests should be made to determine definitely whether this tempering material is shell, bone or limestone.

The finding of Spanish influence in the ceramic art as practiced by the Indians at this mission causes one to wonder if the nomadic, non-pottery-making Indians served by the San Saba Mission, near the present town of Menard, may have been taught by the Spaniards to make pottery. (A survey of San Saba Mission and test trenches in the midden there would show whether they made pottery and answer the question.)

Note: A surface survey at San Saba Mission, made 8/17/34, showed potsherds of both Indian and Spanish origin and some evidence of partly glazed ware. But no pot handles were found at San Saba Mission. [signed A.T.J.]

Handles on Vessels: Vessels with handles seem to have been more numerous here than in most parts of northeast Texas. This statement is based on the relative number of handles to potsherds here as compared with other sites. The handles here tend toward the semi-circular "tea-cup type" of modern times; and strongly suggest Spanish influence, although the workmanship is unquestionably Indian.

The handles show to have been attached by pressing the ends of the handle through, or almost through, the side of the vessel; then flattening or "bradding" the ends of the handle and smoothing the spot over, while the clay was slightly plastic. Several handles with the ends stripped and a rim fragment showing the hole from which a handle was removed by breakage of the vessel all confirm the use of this method of attachment of handles. The handles vary from ¼" to ¾" in diameter and from 1" to 4" in length. While most of the handles were curved, a few consisted of straight lines with sharp angles.

A good sized fragment of a pot rim, with a handle attached horizontally—instead of vertically—and tilted slightly upward, came from a depth of 8". The upper edge of the handle was only ½" below the rim. The handle was made after the fashion of handles or hand-grips on crockery churns and jars of pioneer day—except that instead of being attached to the vessel for the full length, this handle was fastened only at the ends and had a hole about ½" in diameter between the center of the handle and the side of the vessel. The ends of the handle had been pressed into the side of the vessel and bradded, as in all other cases at this site. (Found by Goliad crew.)

From a depth of 54", near the center of the mound, came a rim sherd showing a round hole slightly less than ½" in diameter. It seems to originally have contained a pot handle—that was not well "bradded"—and pulled out.

A pot knob, or leg, straight, 3" long and ¾" in diameter, with shell tempering, came from a depth of 8" in north edge of mound. It seems to have been attached to edge of rim and protruded upward rather than outward. (Goliad crew.)

One pot handle of clay was horizontal and tilted upward like copper handles found in the mound. It was not "bradded in" like other clay handles, but simply held by cohesion, being kneaded onto side of vessel just beneath rim. (Goliad crew.)

One handle was like others except for a groove on top and running length of handle.

One handle in horizontal position and tilted downward came from depth of 12".

Two small conical knobs, resembling legs on an iron kettle, found in mound. These suggest clay vessels on legs and raise a question as to whether the one described above may not also have been a clay pot leg.

Several Spanish pot or cup handles found are almost identical with those of Indian manufacture, and tend to show the origin of the Indian pot handles.

A total of 57 clay pot handles, 3 of copper and one of iron, was secured by U. of T. from this site [Figures A-32 and A-33].

On 11/5/33 several clay pot handles were found at San José Mission near San Antonio. They are identical in every respect to the ones found at Goliad [Figure A-34].

At a depth of 30", and 12 feet inward from the south edge of the mound, was part of the rim of a large copper vessel, with a heavy copper handle bradded to the rim and protruding upward 3". Handle is ½" in diameter.

Types of Vessel Rims: Four types of vessel rims have been noted among the potsherds. They are: (1) curved slightly inward, rounded and somewhat thinner than balance of vessel; (2) rim on same angle and same thickness as adjoining portion of vessel, some rounded, a few flat edge; (3) curved slightly outward, rim about same thickness, usually rounded but sometimes flat; (4) an unusual bevel-edge, ¼" to ½" slope, and flaring slightly outward with edge about one-half thickness of balance of vessel.

Did Indians Mend Vessels?: Several potsherds unearthed in the midden deposit seem to suggest efforts on the part of the Indians to mend broken vessels.

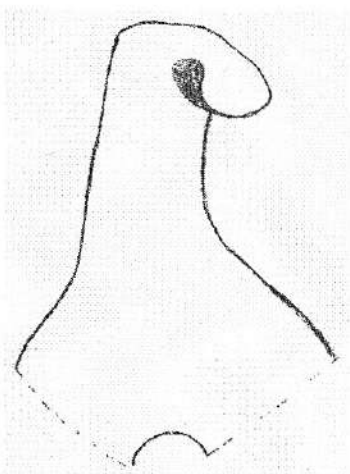
One such find was of a potsherd bearing seven small drilled holes near the edge. Presumably they were used to "sew" that fragment to another by means of small thongs.

The other suggestion of pot-mending was in the form of four potsherds bearing a thick coat of asphalt about ½" wide around the edges of the break on the inside. One of them also had asphalt on a part of the edge itself, as if it had been used as a cement.

Strengthening the impression made by these finds was still another, consisting of a sherd with a very thick application of asphalt about ½" wide around both the inside and outside of the edge. No holes, however.

Ladle: A small earthenware ladle, from a depth of 14", was in perfect condition [Figure A-35]. Its total length is 2¾" which includes a pointed-end handle ¾" in length. Depth slightly less than 1". Yellow clay. Not polished but fairly well made. Real Indian work. Similar ladles come from Bussey Collection, Shelby Co., and from J. M. Riley Farm, Upshur Co., Texas.

Vessel Rest or Stand: What resembles a crude bird effigy came from a depth of 18". It shows to have been made of yellow clay, tempered with a small quantity of crushed shell and some coarse gravel. A crudely shaped "head" resting on a long, wide neck, at that time, seemed to label it as a bird effigy. Workmanship is very crude. At the base of the "neck" are two broken portions with an unbroken central part. Length of neck, 2½"; width at base, 1½"; at top of "head", ½". This object bears slight suggestion of a duck head. It is shaped about as shown in the following drawing and photo [photograph and artifact could not be located].



On November 5, 1933, while searching for Indian pottery at San José Mission near San Antonio, I met A. J. Madlem, who lives on the mission grounds. He is in charge of repairs and restoration to buildings and grounds, and has a collection gathered as a result of such work. Among other specimens was an earthenware object triangular in shape and with a slight knob at the ends of the three legs or projections. Its

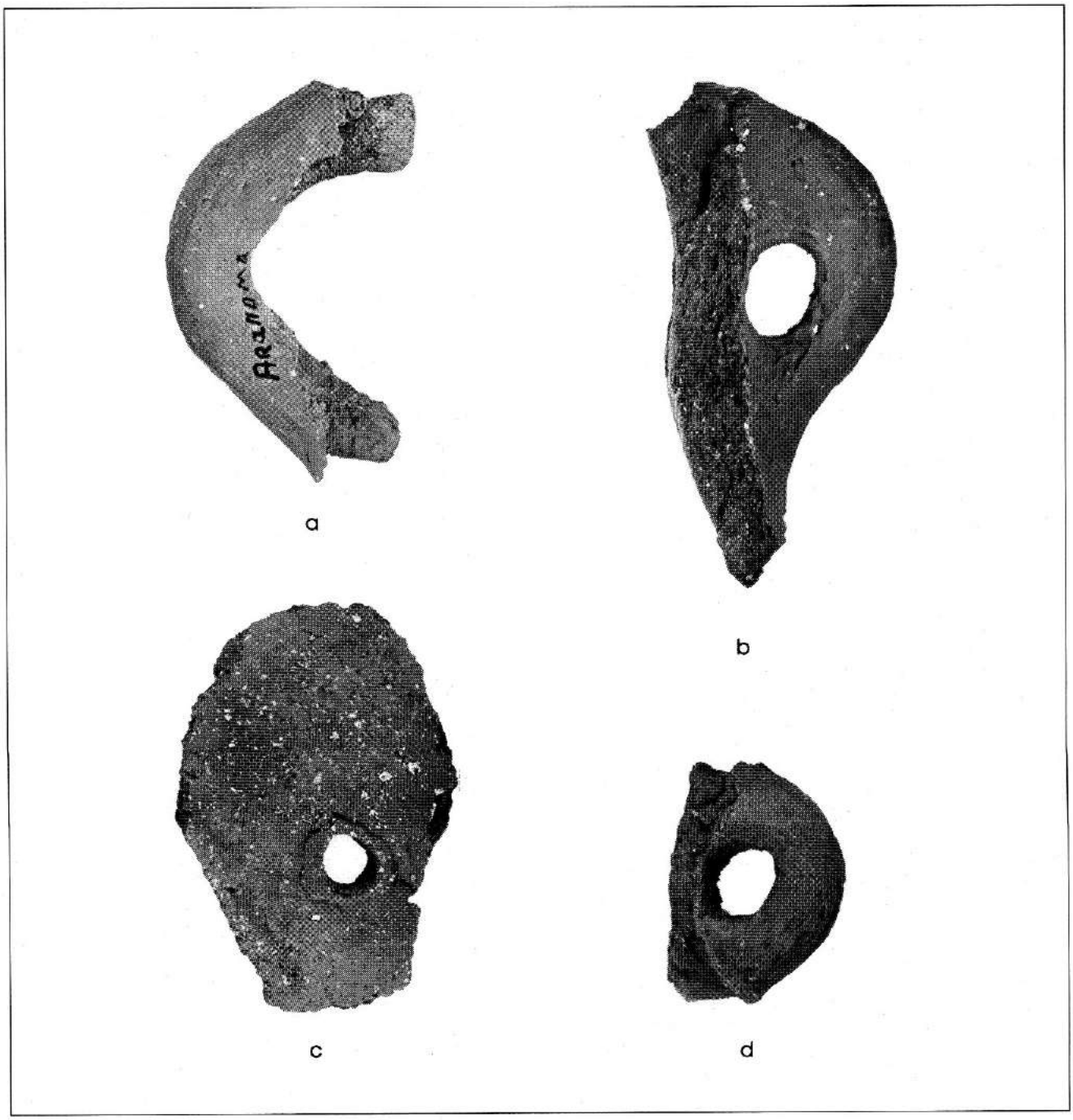


Figure A-32. *Pot handles showing method of attachment to vessel. The ends of handle (a) were inserted in holes in the vessel (c) then flattened or "bradded" while plastic (d) and finally rubbed down and blended into complete handle (b).* No scale. Courtesy TARL, UT-Austin, photo 41GD1-52.

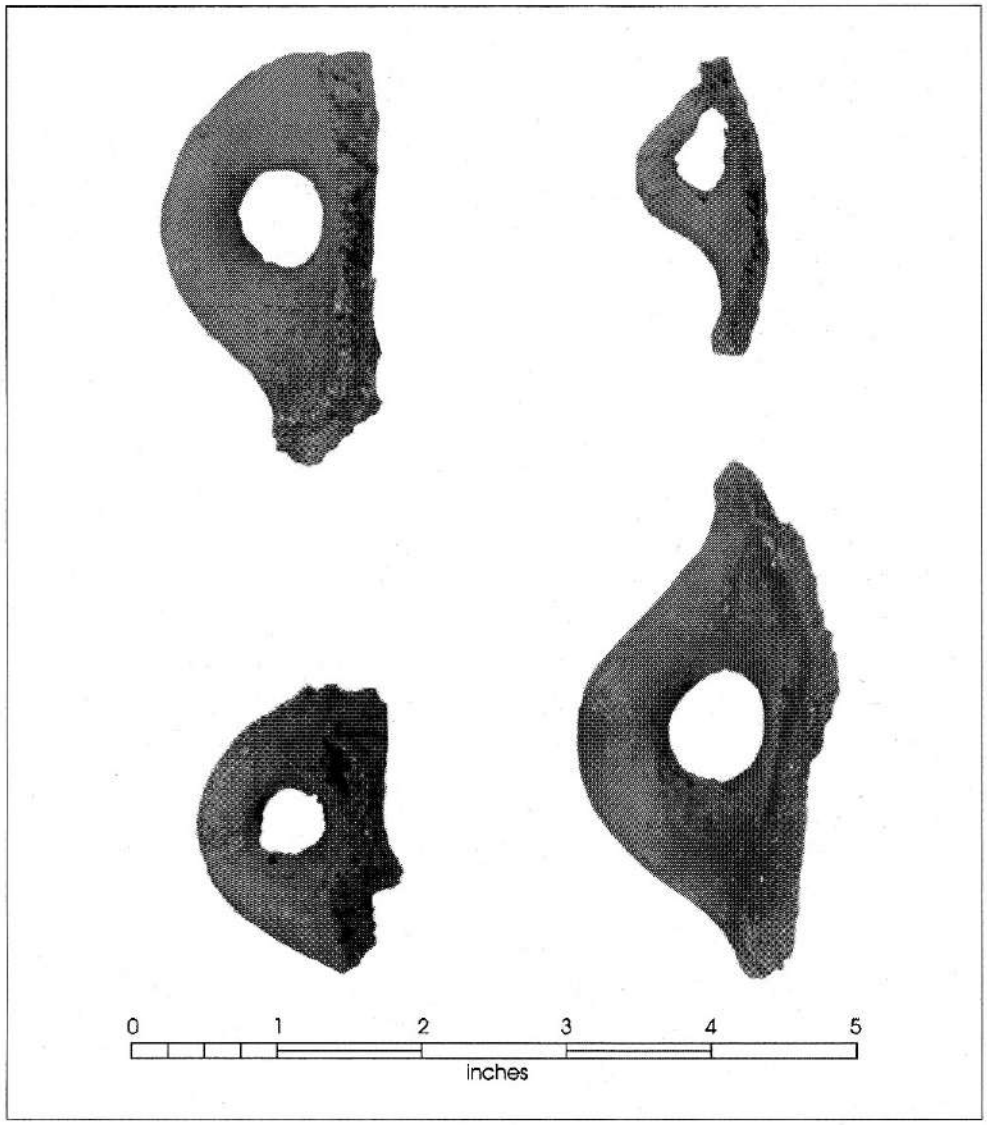
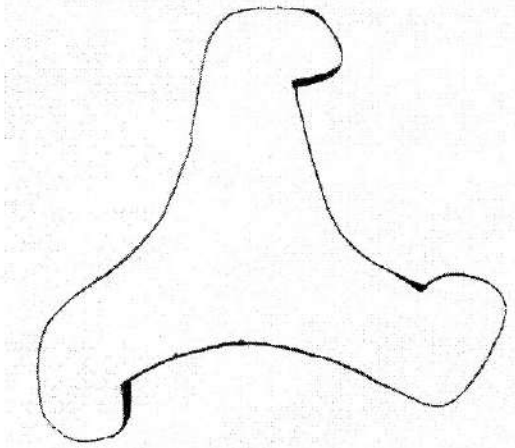


Figure A-33. *This type of handle shows evidence of Spanish influence and is distinctly different from the handles of prehistoric pottery in East and Northeast Texas.* Courtesy TARL, UT-Austin, photo 41GD1-48.

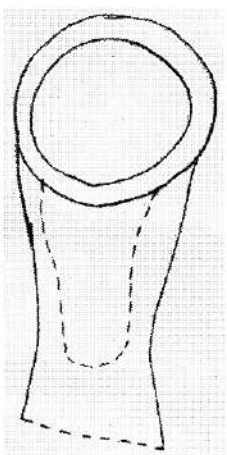
shape is as follows: length, 2⅞"; thickness, ⅝"; crudely made; bottom and top sides flat.



On seeing this object, it immediately became certain that the broken specimen excavated in midden mound at Aranama Mission at Goliad was the same type of article.

The top of each knob is slightly worn and two of them show evidence of a glaze, on the tip only. It was probably used as a rest or stand on which to place hot (?) vessels. It may have been made by Indians under Spanish influence.

Candle Holder (?): At a depth of 4", near center of the mound, was the bowl (?) of a clay pipe-like article of Indian manufacture. Crudely made of yellow clay end tempered with shell and gravel. The bowl, if such it be, is 2½" tall, 1¼" outside diameter and ¾" inside diameter at top. It tapers gradually from top toward the bottom for 2", then begins to flare outward again. The hole is 1⅛" deep and conical in shape. The inside is somewhat charred. The hole does not continue as in a pipe. This may have been an earthenware candle holder, with lower portion broken off.



Pottery and Stone Discs: No pottery disc with a hole in the center, such as frequently found in midden deposits in northeast Texas, was found in the Aranama mound.

But there was found one disc, some 2" in diameter and without a hole, ground down from a fragment of European glazed pottery. (Found by Goliad crew.)

A disc of unbaked clay 1¼" in diameter and ½" thick, with no hole, from depth of 22".

Another disc, of Indian pottery, scarcely 1" in diameter, and without a hole; and a third, also of Indian pottery, about 2½" in diameter, broken and without a drilled hole, were found in the north-central part of the mound. Both had edges worn smooth. (Found by Goliad crew.)

Three small discs not drilled. One copper disc 2" in diameter with ¼" hole in center. A stone disc 1¼" in diameter from depth of 12". Half of another stone disc, with drilled hole, came from 32".

A pottery disc 3" in diameter had no hole; depth 24".

Total of 19 pottery and 5 stone discs [Figures A-36 and A-37].

A few discs of stone and pottery identical with those at Goliad were found at San José Mission, San Antonio.

Game Pieces or "Marbles": Of interest as possibly having been used in games are two "marbles"(?), one of fired clay 1" in diameter; and the other of stone slightly larger and bearing a small smooth pit about 1/10" deep [Figure A-38]. Depth 18".

Arrowpoints and Spearheads

Projectile points of the following shapes and kinds were found [Figures A-39 and A-40].

Evidence of Food

In the midden deposit were found hundreds of buffalo bones, some bones of ordinary cattle, a few of deer, rabbit and turkey. A very few oyster and clam shells were present; and freshwater mussel shells were likewise scarce, as compared to prehistoric sites in Central and East Texas. Snail shells in the midden were also very scarce. Few fish bones were found.

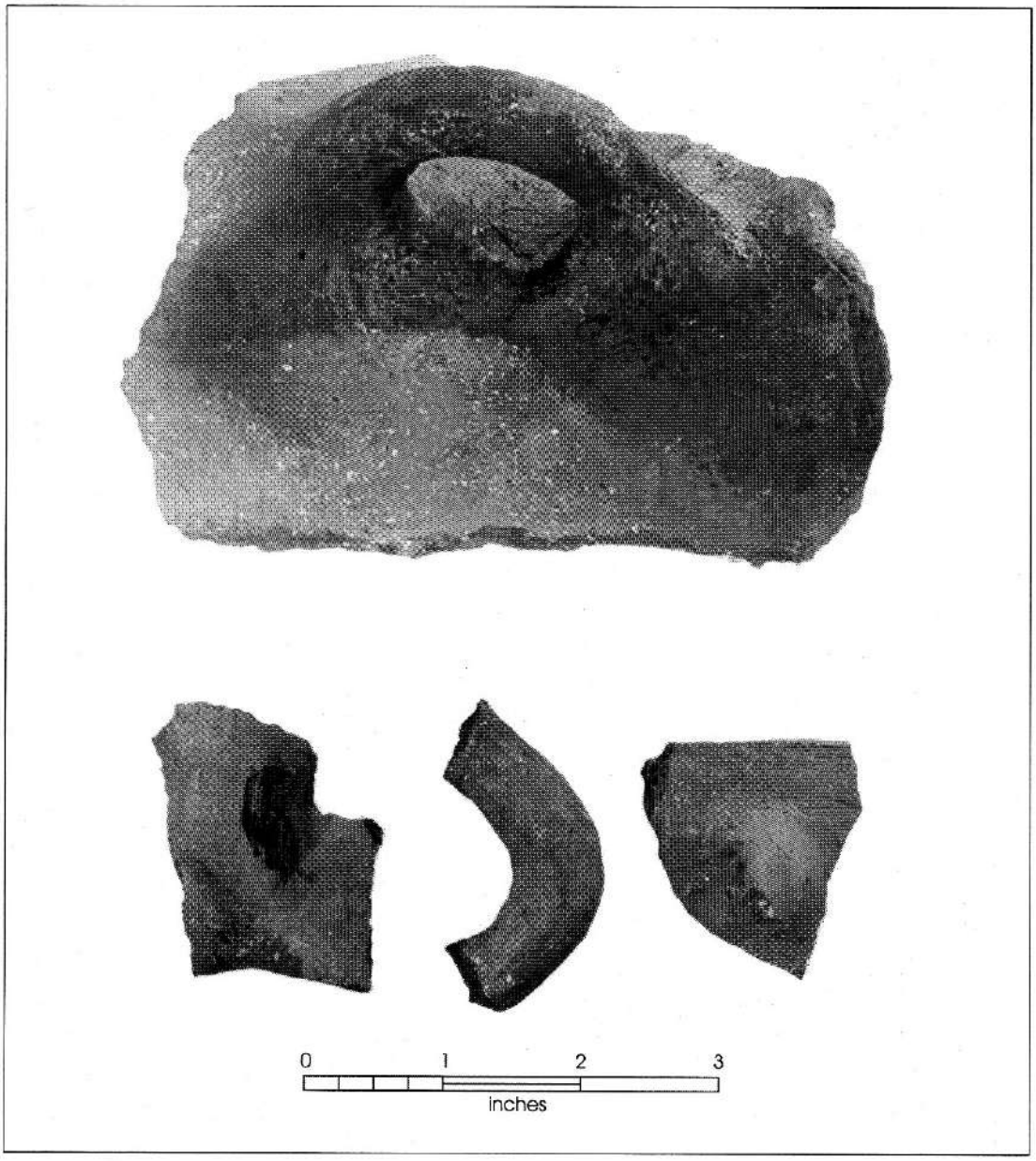


Figure A-34. *Pot handles from San José Mission, Bexar County, Texas. These handles are pictured here to show that they are identical in technique to ones found at Aranama Mission, Goliad County.* Courtesy TARL, UT-Austin, photo 41GD1-64.

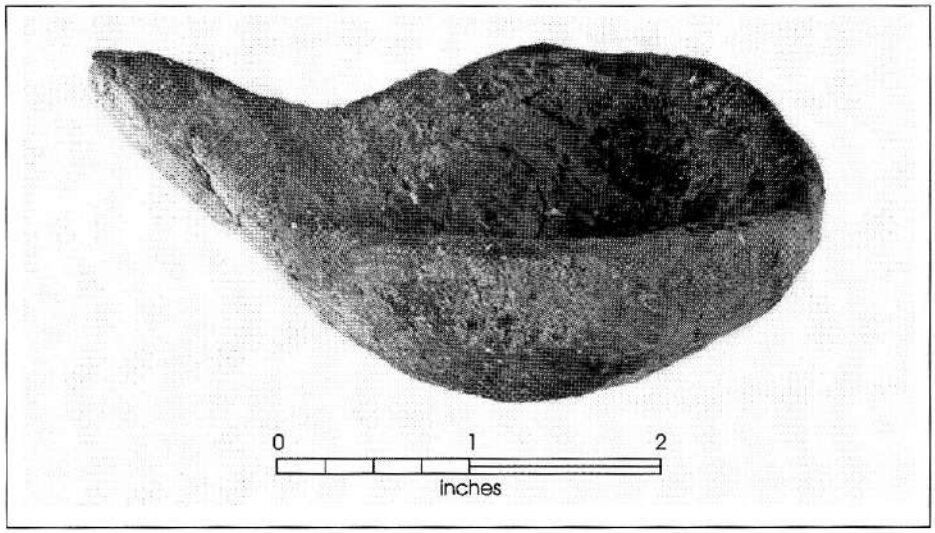


Figure A-35. *Earthenware ladle.* Courtesy TARL, UT-Austin, photo 41GD1-43.

These facts, no doubt, are largely explained by the statement of Solis that "at the mission their food consists of beef and cooked corn" (Solis Diary of 1767, page 14). With regard to corn and other crops, Solis further states: "It (Espíritu Santo Mission) has also large corn-fields. On these lands cotton, melons, potatoes, various kinds of peaches, figs, etc. are grown in large quantities" (Solis Diary of 1767, page 16) [Figure A-41].

"The mission has dwelling quarters for the religious, the soldiers and the Indians, and all these structures are respectable and sufficiently large" (Solis Diary of 1767, page 16).

If the Indians lived inside the mission yard part of the time, as we may infer from above, it accounts for the presence of a certain amount of midden material inside the walled yard. In digging a garbage pit inside the yard, at time of establishing our camp, we encountered camp refuse to a depth of 20".

There is also much camp refuse, in the form of animal bones, broken pottery, flint chips and an occasional arrowpoint and flint scraper, just outside the stone yard fence. This, in a number of places, seems to have resulted from tossing rubbish over the fence in the process of cleaning the yard. This condition is especially pronounced along a portion of the north wall, which runs along the edge of the hill adjoining a ravine; and is least in evidence just outside the eastern or front side of the mission yard.

But every indication, particularly the midden mounds, seems to suggest that the Indians for long periods of time lived outside the yard to the west (near river) and to the south. The mound to the west of the fence is more than twice as large as that to the south, being a favored location, no doubt, on account of its proximity to the river.

At depths of 16" to 38" were found a few sheep and goat bones. This is not surprising, since Solis' diary of 1767 states that this mission had 1,500 head of sheep and goats (Solis Diary of 1767, page 16).

Eleven gar scales, from a depth of 18", suggests another item on the Indians' menu.

The teeth of a gar were found on the same level as the heap of gar scales previously mentioned, but some 10 feet south. Sixty-three gar scales, some large (as much as 1 5/16" long) were in a heap at a depth of 12". None showed evidence of work.

Also a few turkey bones and some large fish vertebrae tell of other meats that were eaten.

Anaque seeds were found in small deposits at several locations in the midden deposit. These berries, which taste somewhat like the hackberry, were doubtless eaten by the Indians. A row of these trees still grows at the "royal presidio" of La Bahia, ½ mile south of Aranama Mission

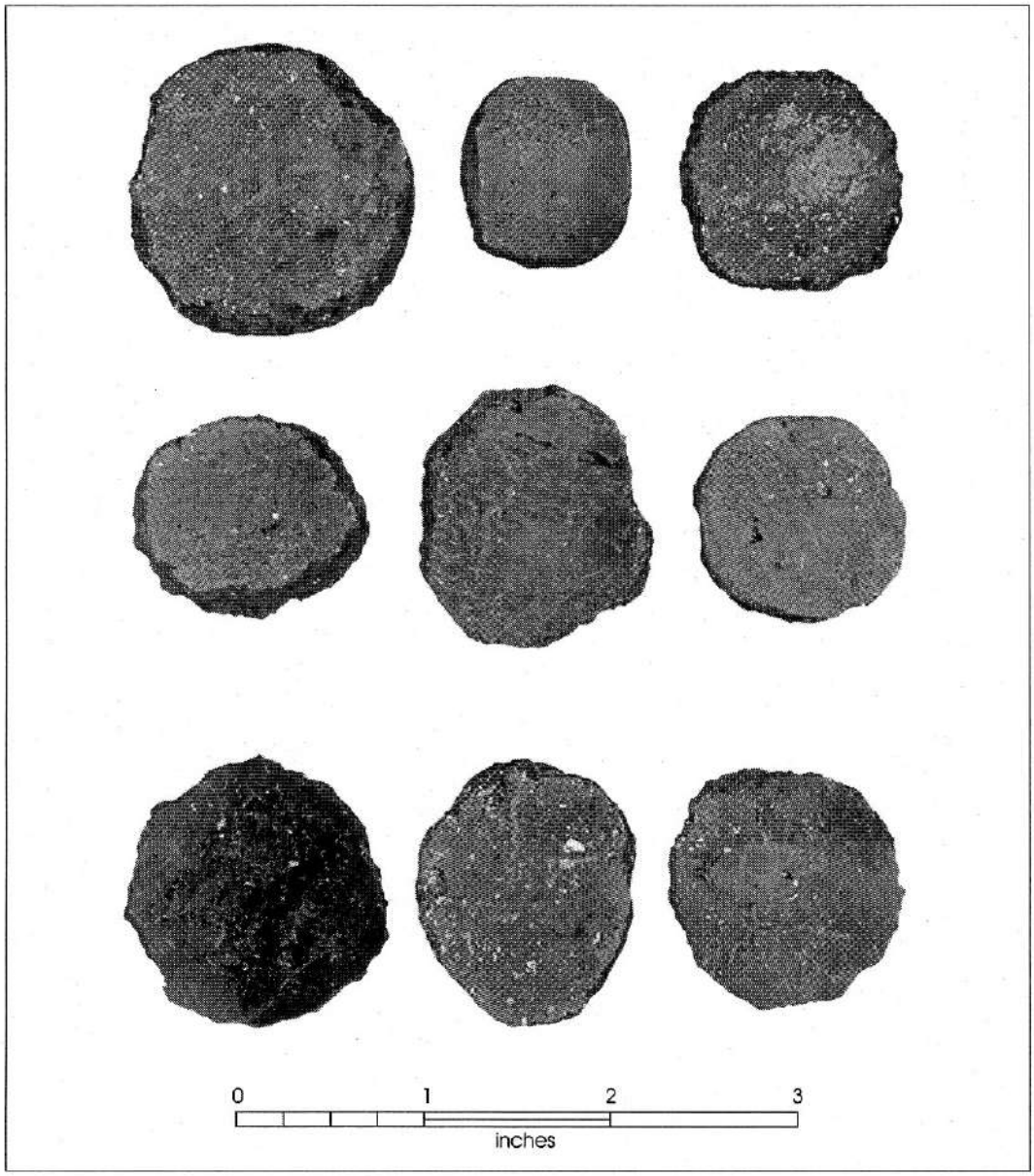


Figure A-36. *Pottery discs recovered from midden deposit.* Courtesy TARL, UT-Austin, photo 41GD1-49.

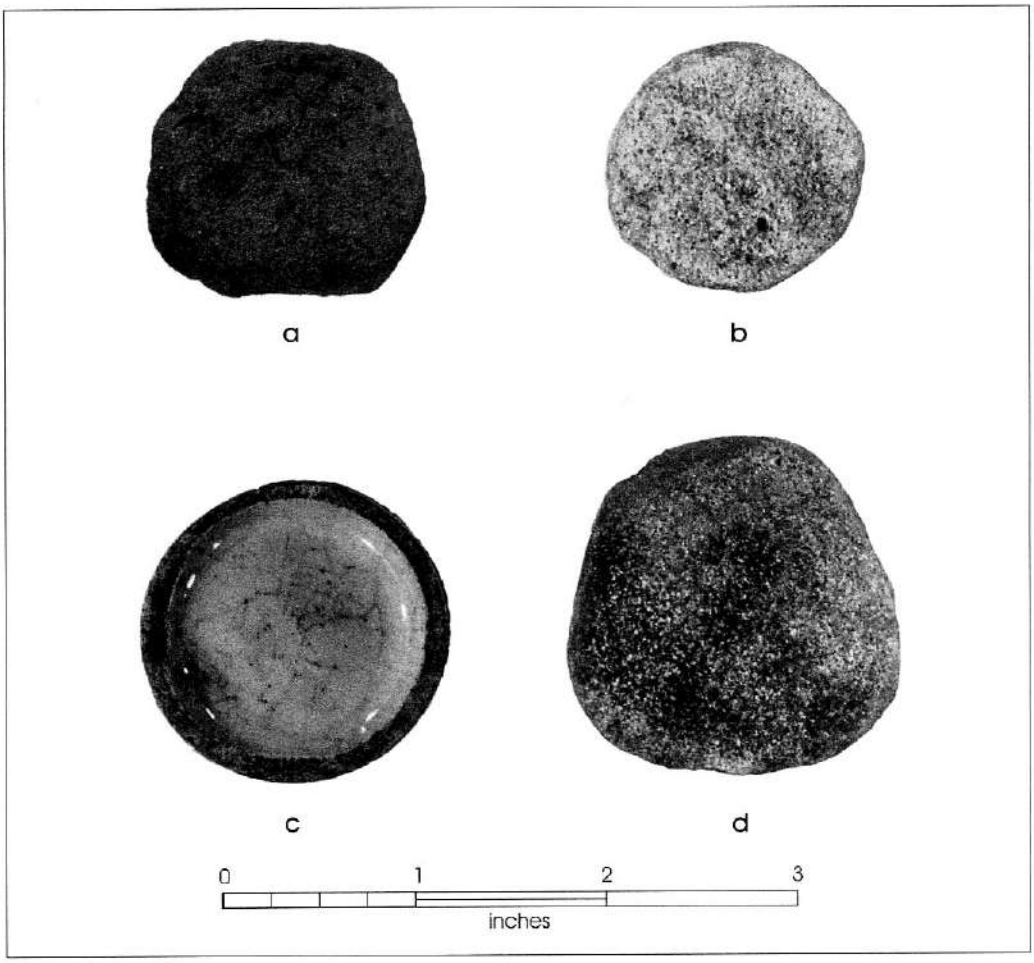


Figure A-37. *Undrilled discs recovered from midden deposit. a) tempered, unfired clay; b) sandstone; c) European pottery; d) sandstone.* Courtesy TARL, UT-Austin, photo 41GD1-47.

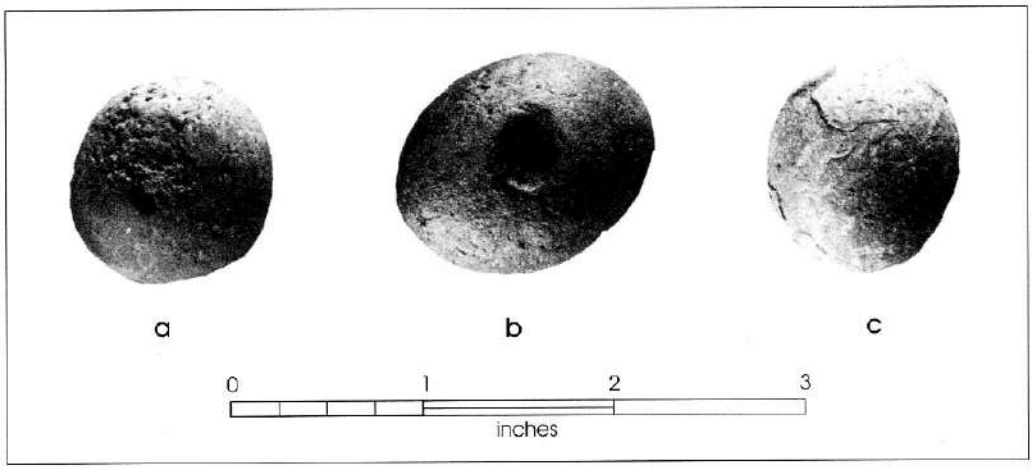


Figure A-38. *Game pieces or "marbles". a) clay; b-c) stone. Note pit in specimen b.* Courtesy TARL, UT-Austin, photo 41GD1-57.

Figure A-39. *Flint projectile points recovered from midden deposits.* Courtesy TARL, UT-Austin, cat. numbers, left to right, (top) 1S-92-8, -31, -21B, -19E, (bottom) -7, -18B, -1B.

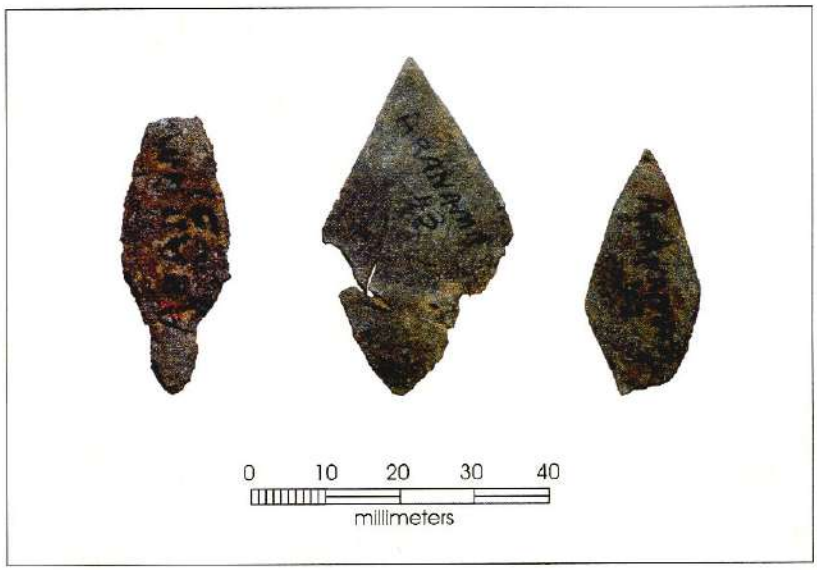


Figure A-40. *Metal projectile points recovered from midden deposits.* Courtesy TARL, UT-Austin, cat. numbers, left to right, 1S-92-94C, -95C, -95B.

[Figure A-42]; and 88 now grow around and within the yard of Aranama Mission. They are most plentiful along the west and south sides just outside the rock fence, or wall, adjacent to the dense midden deposits [Figures A-43, A-44, and A-45]. The largest and oldest of the anaque trees here is one growing 17 feet southeast of the southwest corner of the mission. Its trunk is 89 inches in circumference, or 28⅓ inches in diameter. The ones on top of the midden mound to the west of the fence range from 12 to 38 inches in circumference, or 3⅘ to 12 inches in diameter. The ones on the mound have, no doubt, attained their full growth since the abandonment of the mission.

A spot near the south edge of the mound contained a number of freshwater mussel shells, one of which was unusually large. There were a few snails on the surface, but no evidence of snail eating.

A few exceedingly small conch shells came from different depths in the midden.

Remains of a few mesquite beans were found in the midden deposit. There are many mesquite trees near. A number of black or Mexican persimmon trees grow on the mound.

A turkey leg bearing spur, from south edge of mound.

At 35" to 37", and 35 feet inward from N.W. edge of mound were found approximately 600 gar scales scattered over a space some 3 feet wide.

Deer bones seemed to be more numerous in the southern part of the mound. Also turkey bones.

At a depth of 40", and 41 feet inward from west center of mound, were found fragments of a corn cob. It was imbedded in a thin layer of charcoal, and in association with animal bones.

A few pecans of medium size were found in ash deposits at depths of 14" and 38". One squash seed was preserved in a deposit of ashes.

Animal bones were more numerous around edges than in central part of mound. This confirms the theory of the Indians having lived on the knoll. Bones naturally would be tossed to edge.

Inside and around the yard for some distance are plants of Mexican pepper, of small, round red type.

Bones present in the midden indicate the eating of the "soft-shell" turtle.

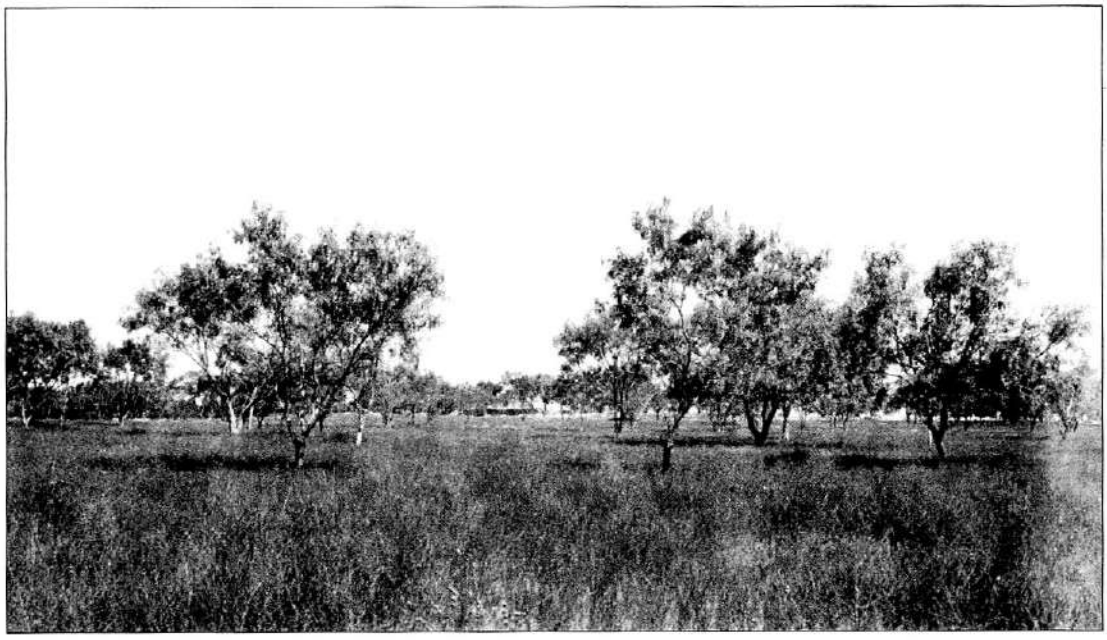


Figure A-41. *Land formerly cultivated by Indians at Aranama Mission, Goliad County, Texas. Mission ruins in background. The growth seen here consists of mesquite trees.* Courtesy TARL, UT-Austin, photo 41GD1-9.

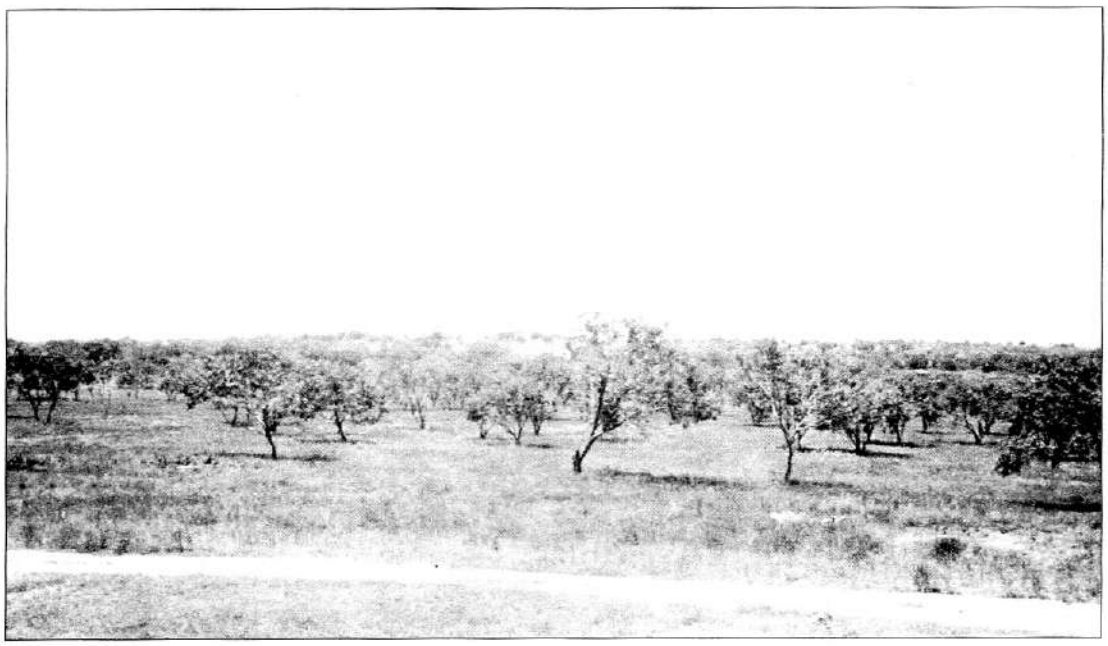


Figure A-42. *La Bahia, or Royal Presidio, as viewed from Aranama Mission about ½ mile to north, Goliad County. These missions, as may be here noted, were built on elevated sites that commanded a view of the surrounding country.* Courtesy TARL, UT-Austin, photo 41GD1-10.

At a depth of 20" was a dog skull complete; but no other bones near. Dog may have been eaten.

The jaws of two dogs (possibly coyotes) may indicate another food.

Many of the animal bones were broken into splinters, no doubt incident to securing the marrow for food.

An alligator tooth pendant indicates alligator meat to eat.

Fragments of several deer skulls in the mound suggest the breaking into the skulls to obtain the brains.

Bones of rabbit and squirrel were not numerous.

At the southeast edge of the mound, very near the fence in the upper 3" to 5" of the deposit, were a number of cow bones with sawed ends. This sawing instead of breaking may indicate refuse from the mission at time occupied since the Civil War, and have no connection with the Indians.

Condition of Bones: It is interesting to note the condition of the bones from the bottom and top of the deep midden deposit. The bones from all depths were soft, brittle and somewhat decomposed at the ends; but there seemed to be little, if any, appreciable difference in the state of preservation of the oldest and the most recent ones. It is known that the mission activities were extended over a period of some 50 years. That was the period during which the midden mound was built up. These facts, then, would seem to indicate that 50 years makes no great difference in the state of preservation of midden bones.

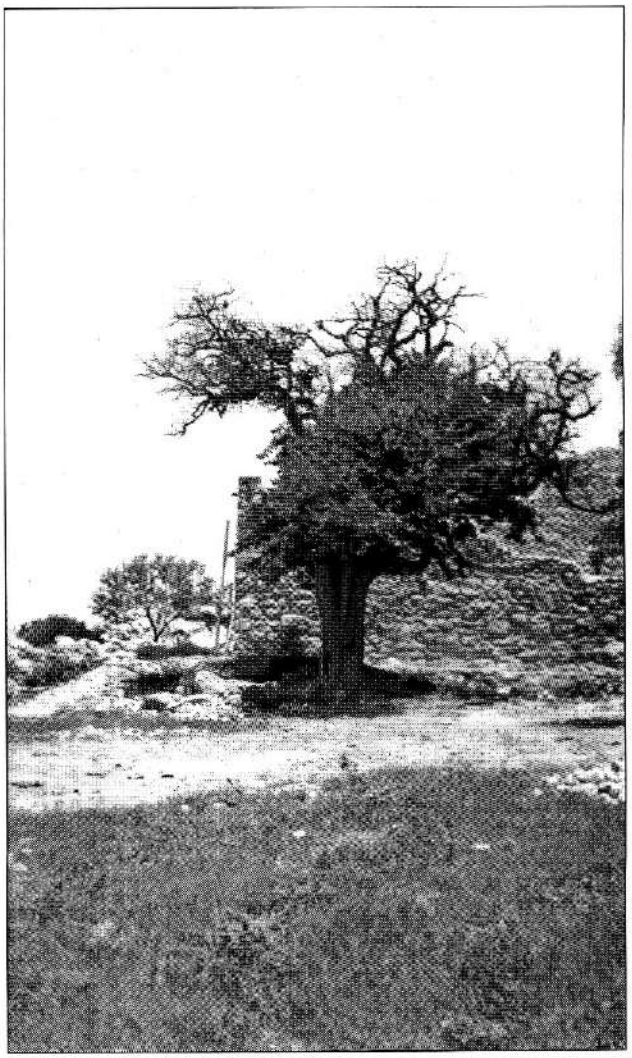


Figure A-43. *Large anaque tree at corner of Aranama Mission, Goliad County.* Courtesy TARL, UT-Austin, photo 41GD1-11.

Depths of Mound Deposit

Figure A-46 shows excavation of the midden deposits.

The depths of the mound or midden deposit through the highest, or central, portion are as follows:

Western edge	5"
9 feet inward (to east)	27"
15 feet inward (to east)	52"
20 feet inward (to east)	53"
23½ feet inward (to east)	47"
30 feet inward (to east)	49"
32 feet inward (to east)	56"
39 feet inward (to east)	51"
42 feet inward (to east)	53"
48 feet inward (to east)	48"
54 feet inward (to east)	46"
56 feet inward (to east)	49"
62 feet inward (to east)	44"
66 feet inward (to east)	41"
68 feet inward (to east)	48"
73 feet inward (to east)	43"
76 feet inward (to east)	47"
80 feet inward (to east)	47"
85 feet inward (to east)	40"
87 feet inward (against wall)	40"

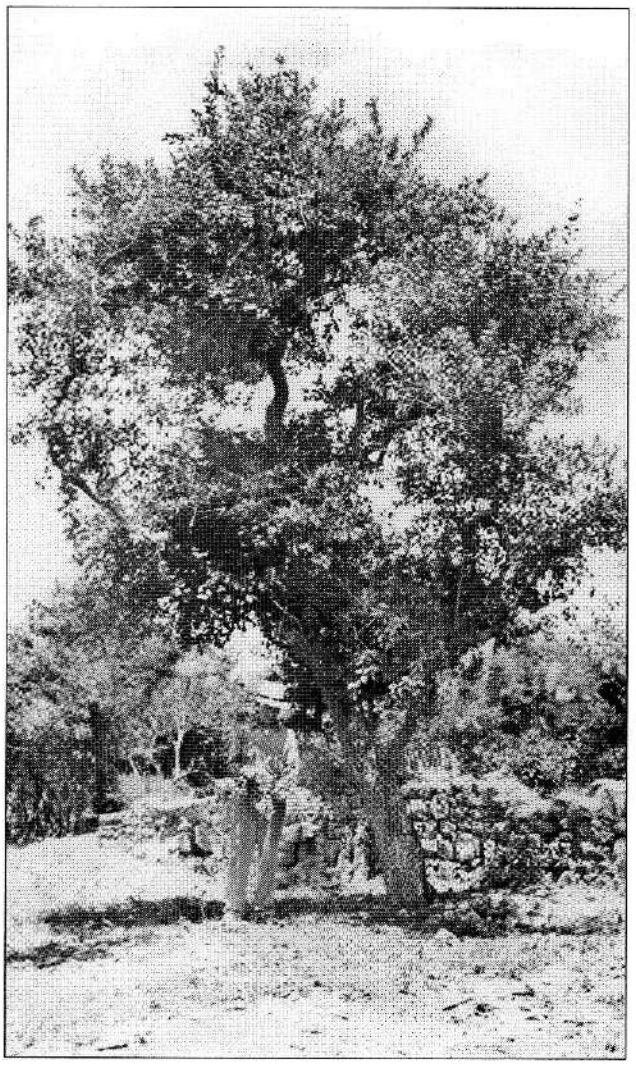


Figure A-44. *Anaque tree loaded with berries just outside stone fence that encloses mission.* Courtesy TARL, UT-Austin, photo 41GD1-12.

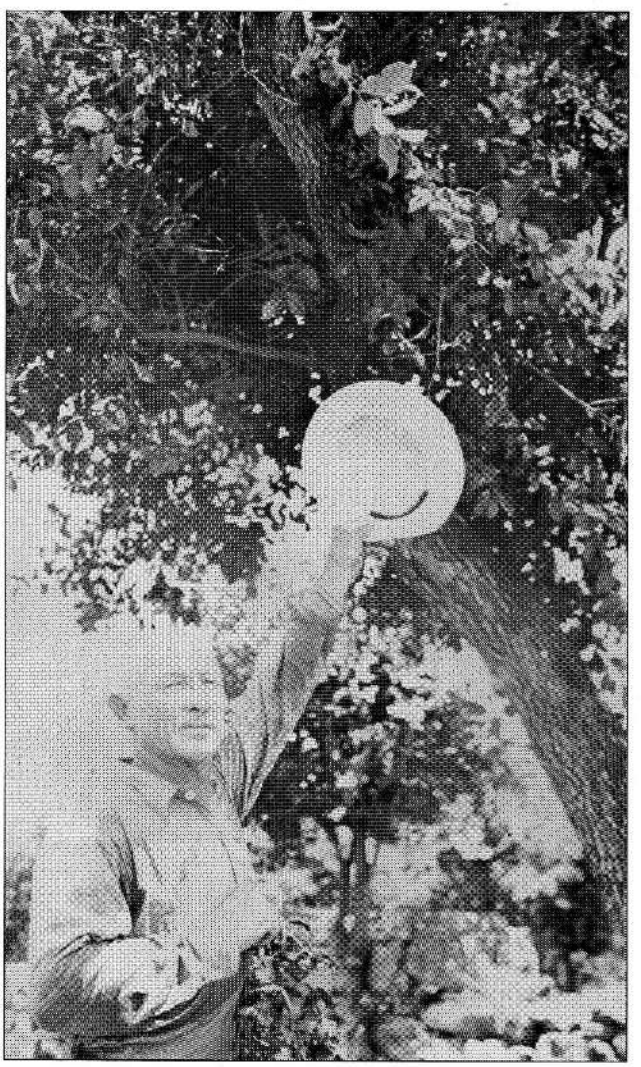


Figure A-45. *Anaque tree loaded with berries beside stone fence.* Courtesy TARL, UT-Austin, photo 41GD1-13.

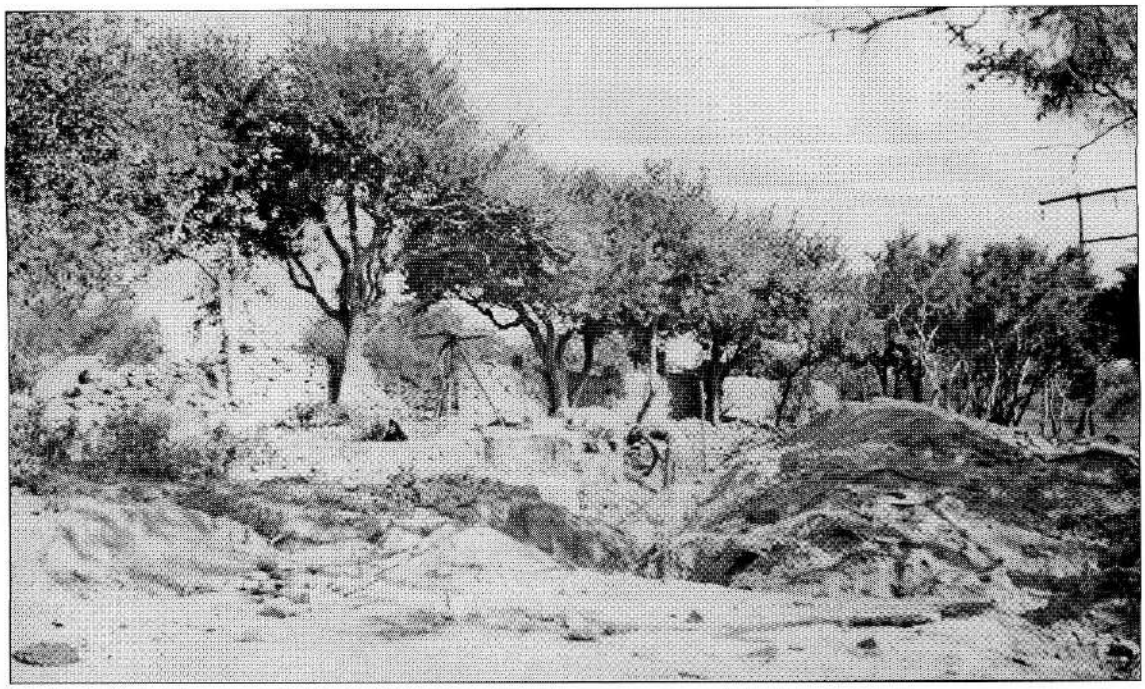


Figure A-46. *Excavating midden mound, Aranama Mission.* Courtesy TARL, UT-Austin, photo 41GD1-14.

Against the wall or fence at the S.E. edge of the mound the deposit was 40" deep, with the wall extending above 46". The deposit, as well as the wall foundation, rested on bedrock. At this point the wall is 7'2" high [Figure A-47]. Apparently the wall was completed before the mound began to be built. Before the midden material accumulated, thus gradually lessening its height, the fence would have presented quite an obstacle to hostile Indians on the outside.

Mission Quarters and Grounds

Solis states in his diary of 1767 that this mission had "dwelling-quarters for the religious, the soldiers and the Indians, and all of these structures are respectable and sufficiently large" (Solis Diary of 1767, page 16).

The only building with any part of walls now standing is the church building, or mission proper. It is located near the center of an enclosed yard that is approximately 300 square feet. The mission, of the usual thick-wall (33" to 42") stone structure, was partly demolished a number of years ago to secure stone for other building purposes in the town of Goliad [Figures A-48 through A-52].

Judge J. A. White, now County Judge of Goliad County, who has been untiring in his efforts to have the mission restored, tells me that the old building has had a varied and colorful history. After abandonment of mission activities, about 1790 to 1800 (?), the mission was secularized. It was the scene of a battle on March 18, 1836, the day before Fannin's retreat from La Bahia. Prior to the Civil War, Aranama College was located adjacent to the mission, and the latter occupied. All the students enlisted in the Confederate Army and the college was abandoned. For some years, around 1900, the mission was occupied as a residence. At that time it was converted into a two-story building. Later it was used as a storage place for hay. Then it was almost dismantled for its stones. In recent years local enterprise has resulted in securing the property by the town and county and having the site set aside as Goliad State Park. State of Texas has made small appropriations for clearing the undergrowth around the place. R.F.C. funds have been utilized to begin the restoration of the building. If and when completed, it is intended for the mission to house a small museum, including specimens gathered around the mission environs. Such is the reason for the Goliad crew working with U. of T. crew.

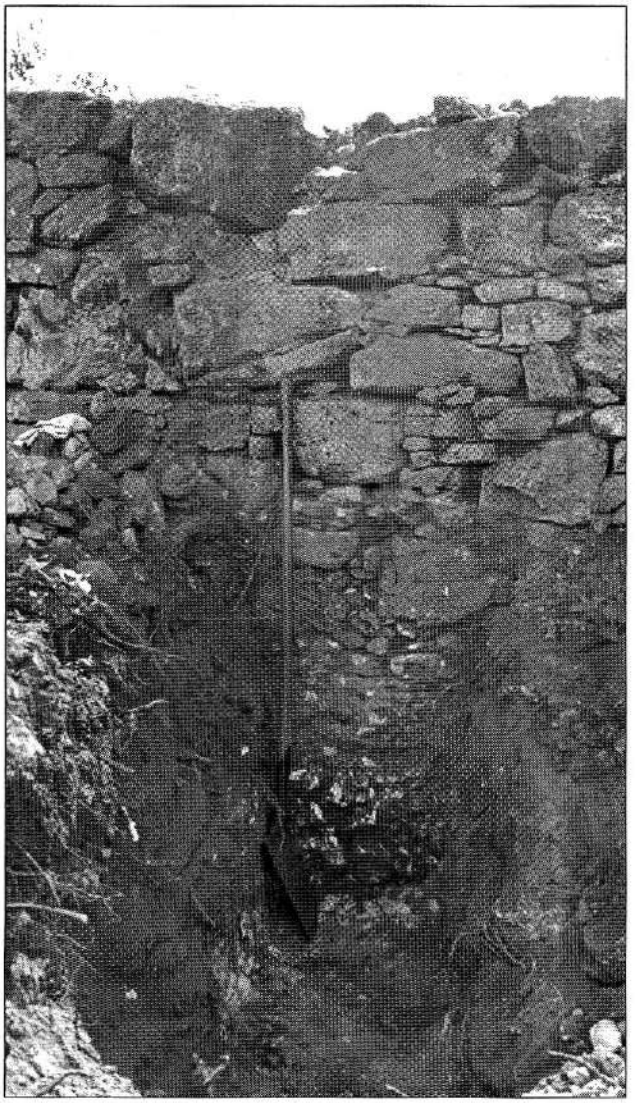


Figure A-47. *Trench in midden deposit, showing stone fence 7'2" tall that enclosed Aranama Mission. The deposit at this point is 40 inches deep, with the fence extending 46 inches above.* Courtesy TARL, UT-Austin, photo 41GD1-15.

Figure A-48. *Entrance to Aranama (Espíritu Santo) Mission.* Courtesy TARL, UT-Austin, photo 41GD1-16.

From what now remains of the mission, it seems to have originally consisted of a small room, 16 x 10 feet inside, on the north; and a long room, 18 x 55½ feet inside, on the south. There is some evidence indicating that this long room was originally divided into three rooms.

While no other walls of buildings remain, there are heaps of ruins both to the northeast and southeast of the mission proper. These heaps may mark the sites of the original structures for the soldiers and Indians. One to N.E. probably for Indians. To the east of the mission is another heap of ruins. This may have been the "dwelling-quarters for the religious." To the northwest of the mission was a dug well, which is now filled.

The grounds were enclosed by a thick stone wall or fence, with a gateway near the center of the eastern wall, leading to the entrance of the mission. The fence has fallen down in places, but is still in a fair state of preservation. It has a uniform thickness of 26" and in places is 6 to 7 feet high.

Connecting with the southeast corner of the yard is a low terrace of earth, of breast-work-like appearance, leading in an easterly direction toward the river half a mile away. (River meanders considerably.) The dirt for the "terrace" came from

Figure A-49. *Aranama Mission yard, showing part of the remains of the massive stone fence, or enclosing wall.* Courtesy TARL, UT-Austin, photo 41GD1-17.

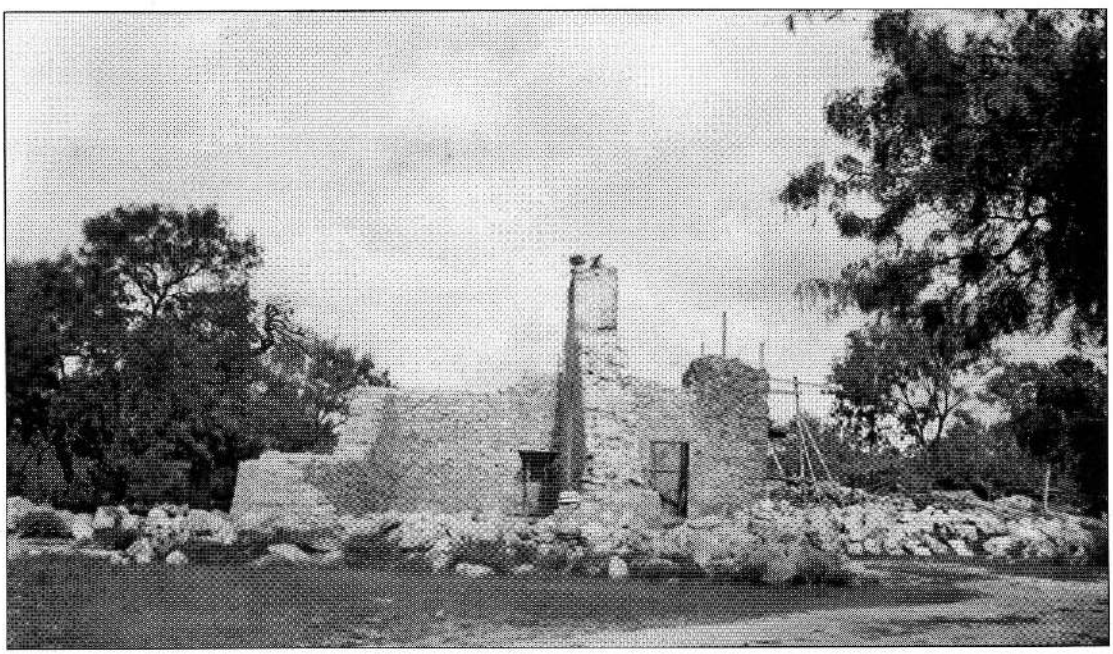


Figure A-50. *Front view of the ruins of Aranama Mission. In process of restoration, July 1933.* Courtesy TARL, UT-Austin, photo 41GD1-19.

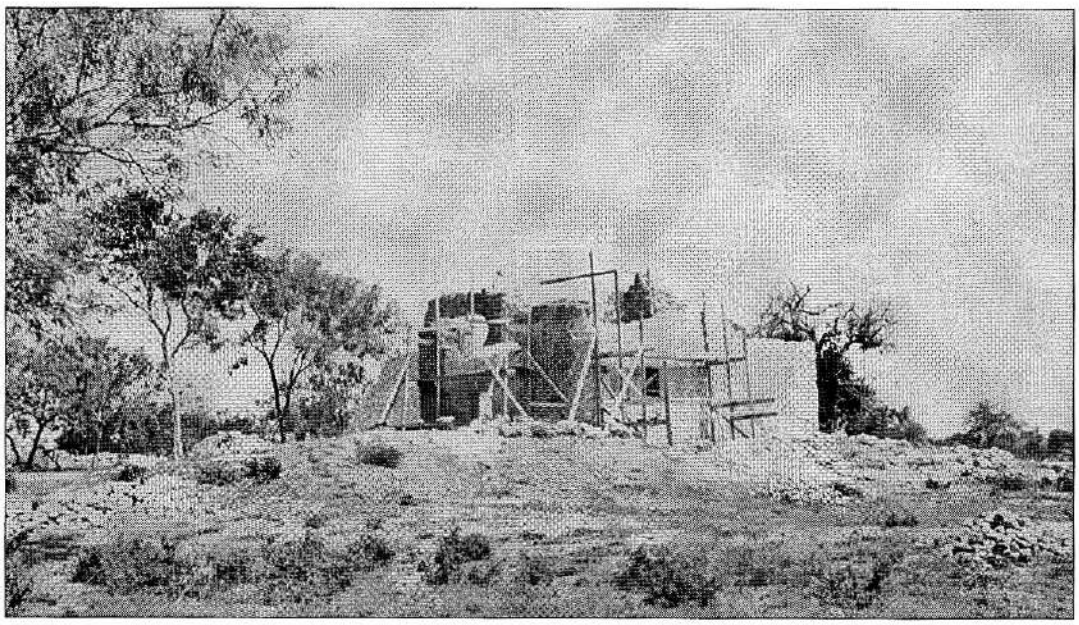


Figure A-51. *Rear view of the ruins of Aranama Mission. In process of restoration, July 1933.* Courtesy TARL, UT-Austin, photo 41GD1-20.

the north side. This could hardly have been an irrigation ditch, since it does not follow the contour of the land but runs in a direct line. Besides, Solis says no irrigation was practiced at this mission because the banks of the river were too steep (Solis Diary of 1767, page 16). Local tradition has it that this is an embankment or breastwork thrown up by Fannin's men. Some say it was once a brush fence. Along the embankment for some 100 yards from the mission yard are 28 anaque trees. In some spots the bank is almost leveled; for most of its length, however, it has a height of two to three feet, and is from six to nine feet wide at the base.

To the south of this ditch and the mission yard stretches a level, fertile strip of land nearly half a mile square. This presumably was the land cultivated by the Spaniards, with Indian labor. It extends from Aranama Mission to within 100 yards of the channel of San Antonio River.

(When speaking of the river being to the west and south of the mission, one must take into consideration the stream's meanderings.)

See rough sketch of mission and environs [Figure A-53].

Stones for erection of the building and fence are reported to have been secured from an outcrop of sandy limestone along the bank of the river a few hundred yards N.W. of the mission. Several deep ravines at that place are said to have resulted from removing the soil and quarrying the underlying stone. One site shows evidence of such quarrying [Figures A-54 and A-55]. The mission Indians, of course, did the manual labor connected with such operations.

To the north of the yard, some 20 to 60 feet from the fence, is a depression several feet deep. Although this may be natural, there is at least a possibility that it was dug out either in quarrying stone for the building and fence, or to secure dirt for filling in low spots inside the yard.

Cross Section of the Midden

The first 30 feet at the outer (western) edge of the mound was composed of the same general type of deposit—consisting of brown loam, a small quantity of ash, many animal bones, a few shells (mostly freshwater), some fish bones, fragments of pottery—both Indian and European—pieces of copper and iron of various sizes, square nails rusted into fragments, small pieces of glass, flint chips with a few flint artifacts, a few trade beads, buttons, metal knife and scissor blades, and various other small articles, all intermixed with the soil and a large number of unburnt small limestone rocks.

Beginning about 30 feet inward from the west edge and some 20 feet inward from the south edge, a cross section showed the following:

> 1" to 9" – Animal bones, few mussel shells, flint chips, pottery of Indian and European manufacture, a few fragments of copper, iron, and other refuse, intermixed with brown loam.
>
> 9" to 16" – Ash streak, intermixed with lime plaster in small lumps and a few small stones. No camp refuse or artifacts.
>
> 16" to 33" – Brown midden deposit very similar to that from 1" to 9". Chief difference between the two strata is that the one from 16" to 33" contains more fragments of metal.
>
> 33" to 45" – Stratum composed of chunks of wall plaster or lime ranging in size from 1" x 1" x 1" to 3" x 6" x 2", intermixed with a certain amount of ash. Like the stratum from 9" to 16", this one contains no camp refuse or artifacts.
>
> 45" to 53" – Black midden deposit very similar to stratum from 16" to 33". Glazed pottery, copper and iron found at bottom in association with Indian pottery and flint work. Many animal bones.
>
> 54" – Undisturbed earth with limestone just beneath.

At a distance of 32 feet inward from western edge and 30 feet from southern edge, a cross section showed the following:

> 1" to 8" – Brown stratum consisting of the usual midden material of bones, shell, etc., together with Indian and European pottery, flintwork and metal fragments.
>
> 8" to 30" – Sterile stratum of wall plaster, lime and a few small stones intermixed. No camp refuse or artifacts of any kind.
>
> 30" to 48" – Stratum similar to that from 8" to 30", except that the one from 30" to 48" also contains a considerable quantity of charcoal and fewer lumps of plaster or life [lime?]. No camp refuse or artifacts.

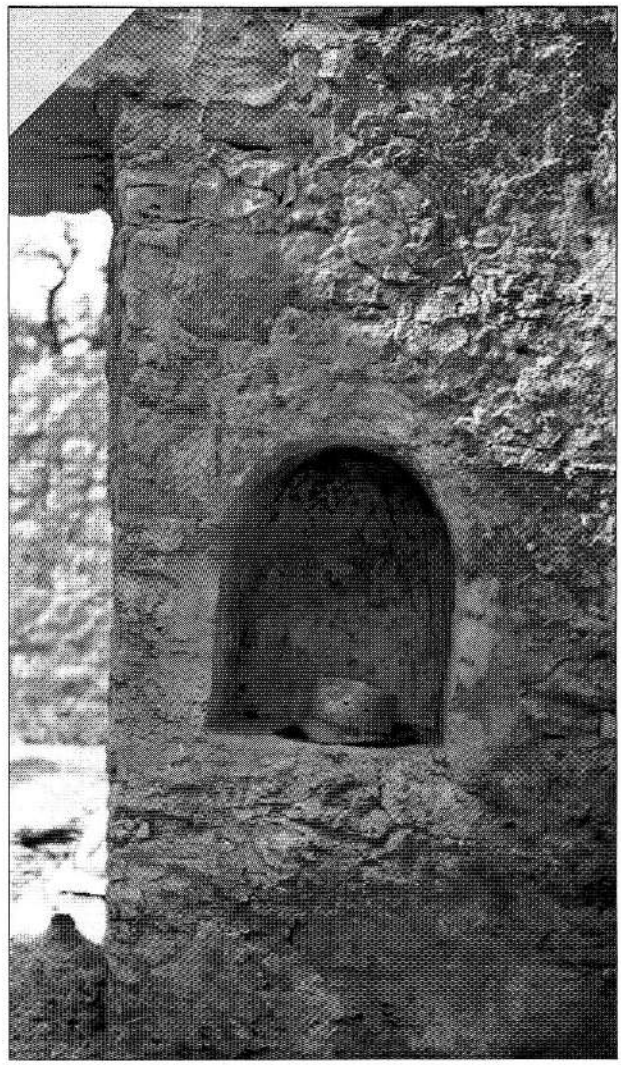


Figure A-52. *A view in one of the rooms in Aranama Mission.* Courtesy TARL, UT-Austin, photo 41GD1-21.

> 48" to 56" – Layer of black midden deposit, containing animal bones, fragments of Indian pottery and a few flint chips and artifacts. No glazed pottery or metal found at this place. (But in other places European articles on bottom.)
>
> 57" – Undisturbed earth and limestone.

The finding of no European articles in the bottom layer as indicated above is not considered significant, and is thought to be a mere coincidence, since such articles were repeatedly

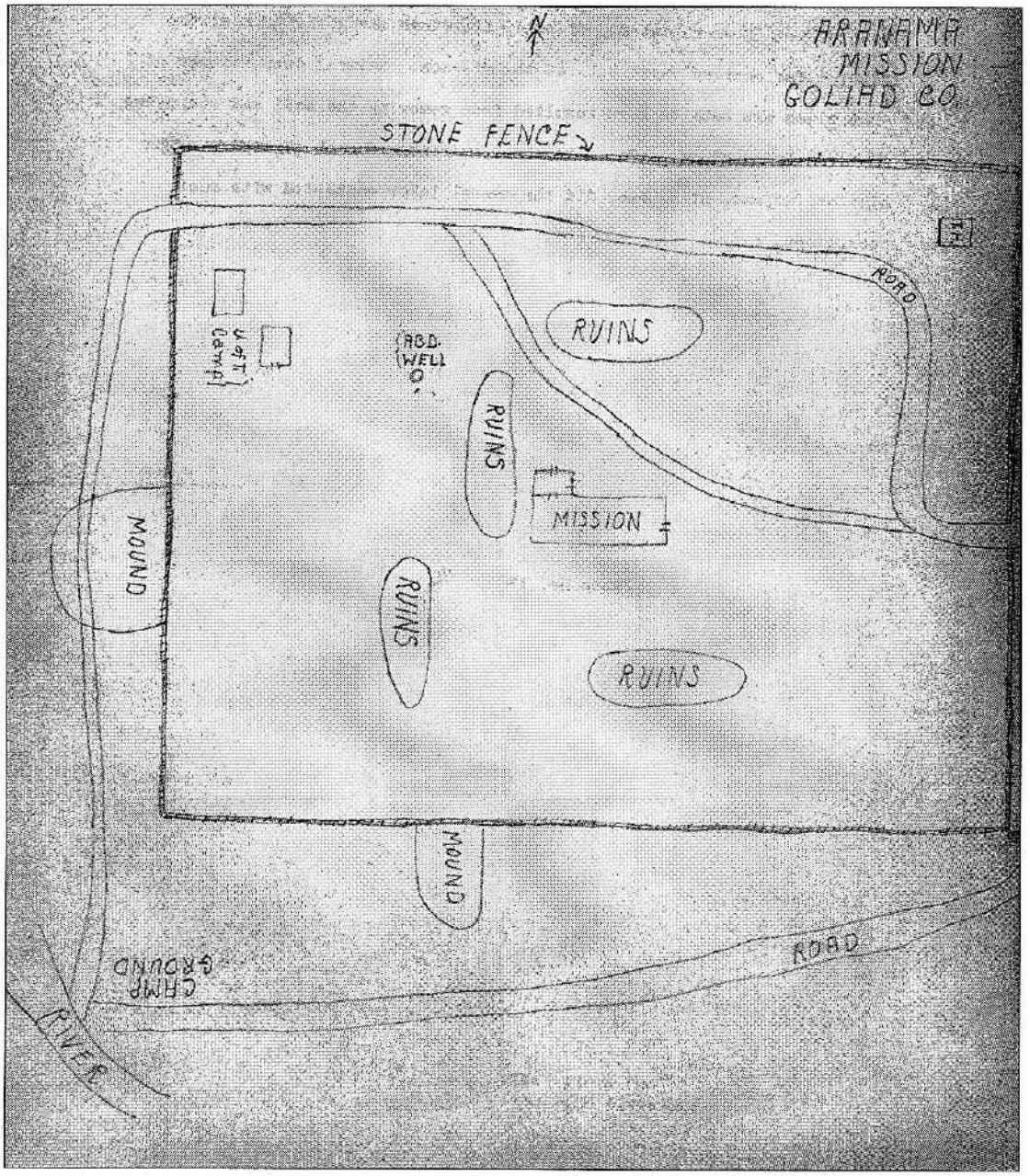


Figure A-53. *Sketch of the mission and environs.* Courtesy TARL, UT-Austin (from original 1933 manuscript).

found in the bottom level at all parts of the mound—even within six feet of the spot discussed above.

With this single exception, the cross section last given is typical of the central part of the midden mound.

Toward the outer edges of the mound there were more bones and discarded articles and less ashes than in the central part. This suggests that the fires were in the center and scraps were tossed toward the edges of the gradually growing heap.

The presence of distinct layers containing no Indian camp refuse, but with their midden material beneath and above in each case, would suggest periodic replastering of the mission building with consequent dumping of large quantities of old plaster and refuse on the Indian dump heap. Then the Indians resumed their occupation of the slightly higher mound.

Continued Use of Bows and Arrows

The finding of projectile points at all depths in the midden deposit proves that their use was not entirely abandoned at any time in mission days [Figures A-56 and A-57].

In this connection in Solis' diary we read as follows: "The mission probably numbers some 300. Among these are about 65 warriors, 30 of whom are armed with guns and the other 35 with bows and arrows, spears and boomerangs" (Solis Diary of 1767, page 17).

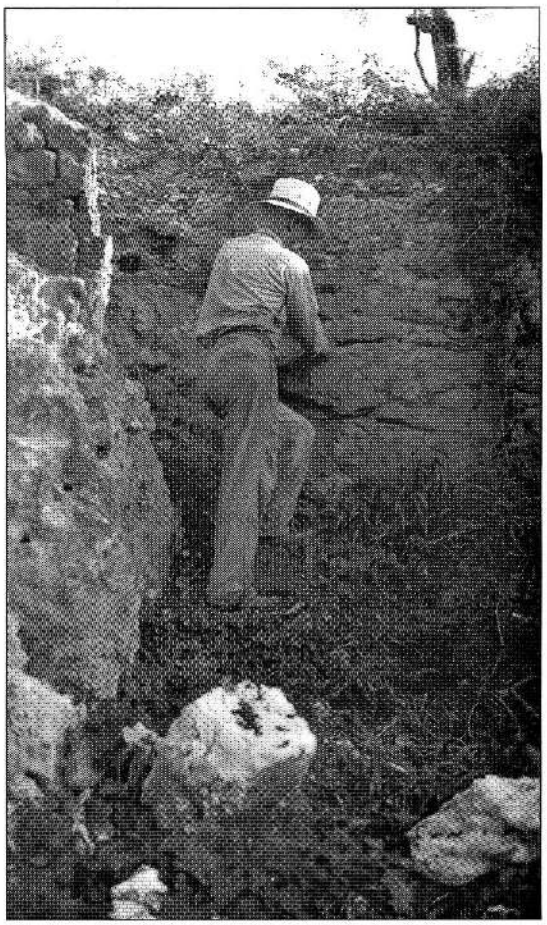


Figure A-54. *Stone quarry site, Aranama Mission.* Courtesy TARL, UT-Austin, photo 41GD1-22.

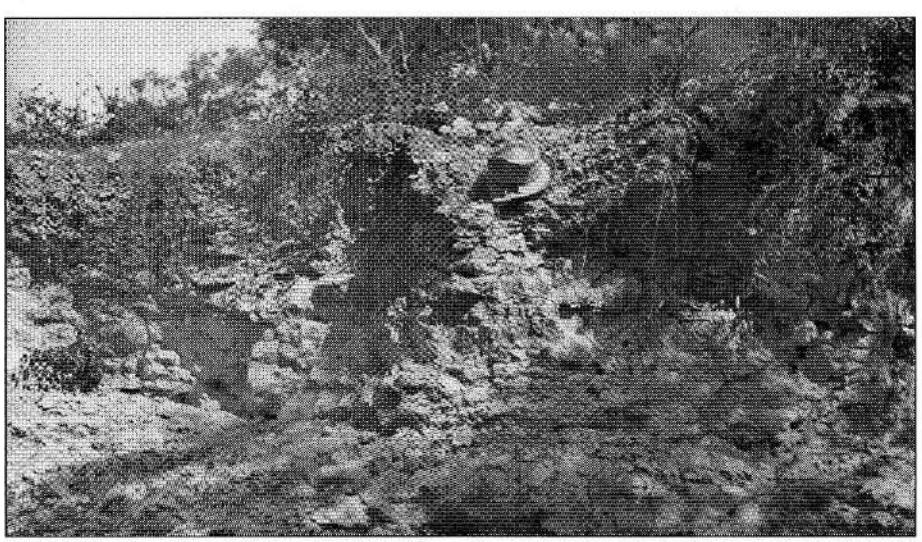


Figure A-55. *Location where stone was quarried for Aranama Mission.* Courtesy TARL, UT-Austin, photo 41GD1-23.

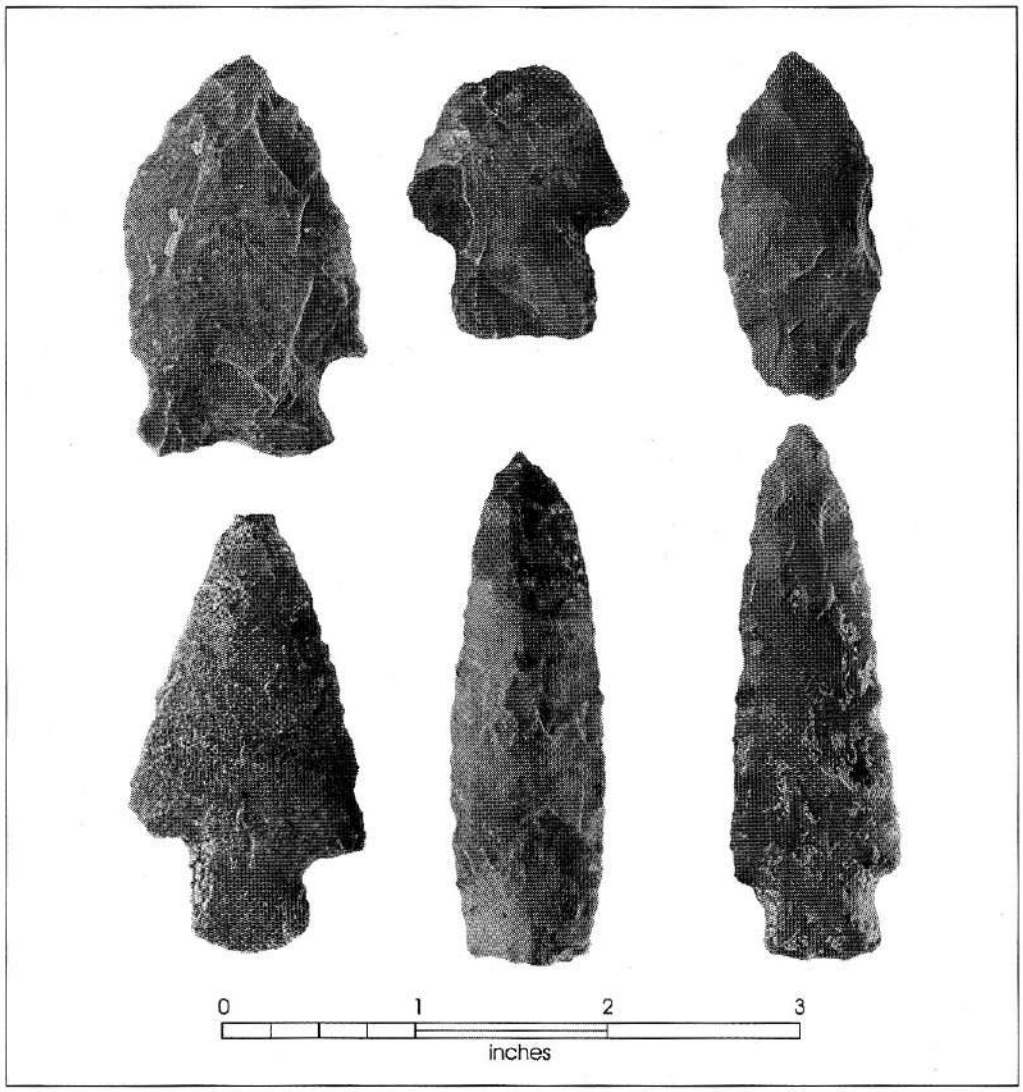


Figure A-56. *Large, crudely made projectile points from various depths in the midden deposit.* Courtesy TARL, UT-Austin, photo 41GD1-63.

Abandonment of Work

It was my plan to completely excavate the large midden mound; and then do a considerable amount of work in several small midden deposits at various points around the enclosing wall or fence and dig in the cemetery at Aranama Mission. But several days before the large midden mound was complete I received orders from Prof. J. E. Pearce, Head of the Anthropology Dept. and Director of Research in Texas Archeology at Austin, to abandon the work at Goliad and move the crew at once to Polk County, Texas, to test certain sites in the latter region. I worked the crew one day more at Aranama Mission, after receiving orders to move; then abandoned work at the site, in accordance with orders, on August 14, 1933.

Figure A-57. *Small flint arrow points from various depths in the midden deposit. A few of these are slightly suggestive of the small arrow points found in burials in Northeast Texas. But the Goliad specimens are not so thin and well-worked.* Courtesy TARL, UT-Austin, cat. numbers, left to right, (top) 1S-92-158(?), -13, -17, -16B, -15A, (bottom) -14A, -2, -15C, -12.

Summary of Finds

Table A-1 presents a summary of the artifacts recovered from the midden deposit at Aranama Mission.

Outstanding Features

Among the outstanding features at Aranama Mission are:

1. Evidence showing extent to which Indians abandoned use of certain aboriginal implements and weapons on securing better ones from Spaniards. There seems to be an open question as to whether the continued use of stone, bone and shell artifacts was due to more than an inadequate supply of European articles or to slowness on the part of the Indians to abandon their old way of doing things.

2. The midden deposit itself bespeaks a following of the old manner of living.

3. Evidence showing extent to which the Indians mastered certain European arts, such as an attempt at glazing pottery and adoption of European shape of handles.

Table A-1. Summary of Finds

Earthenware Bowls	
Restorable	1
Non-restorable	4
Total	5
Earthenware Ladle	1
Pipes	
Clay (broken)	7
Stone	1
Total	8
Trade Pipe Stems (fragments)	3
Discs (not drilled)	
Pottery	19
Stone	5
Total	24
Pot Knob of Clay, plain	1
Pottery Vessel Rest (part gone)	1
Potsherds Patched with Asphalt	4
Pot Handles	
Clay	57
Copper	3
Iron	1
Total	61
Pot Hooks, Copper	7
"Marbles" or Game Pieces	
Clay	1
Stone	2
Total	3
Spearheads	
Flint	5
Copper	1
Total	6
Arrowpoints	
Flint	28
Copper	5
Gar Scale	5
Iron or Steel	4
Glass	2
Total	44
Knives	
Flint	17
Flint Flake	8
Steel	9
Petrified Wood	1
Total	35

Flint Scrapers	
Side	152
End	104
Total	256
Bone Crushers	
Flint	26
Petrified Wood	1
Total	27
Flint Spoke Shaves or "Drawing Knives"	5
Flint War Club Spikes	7
Axes	
Flint Fist (coup de poing)	8
Flint (for hafting)	2
Steel, small	1
Copper(?), small	1
Total	12
Gunflints	12
Gouges	
Flint	5
Copper	2
Petrified Wood	1
Iron	1
Total	9
Awls	
Bone	6
Steel or Iron	3
Square Nails (worked)	3
Copper	2
Flint	1
Total	15
Flaking Tools	
Deer Bone	9
Deer Antler	4
Total	13
Abrading Stone, small	1
Hammerstones	3
Manos	
Indian	14
Mexican	5
Total	19
Metates	
Indian	3
Mexican	1
Total	4

Table A-1. continued...

Round Pebbles	6
Polished Pebbles (not round)	2
Ocher	
Red	15
Yellow	1
Total	16
Mussel Shell Implements	
Hoe (not pierced)	3
Spoon	1
Pierced Shell	1
Total	5
Metal Spoon	1
Large Square Nails	2
Scissors	
Complete	2
Fragmentary	7
Total	9
Brass Thimble	1
Metal Saw Fragment	1
Iron Staple, large	1
Iron Pins	3
Iron Band, hole at each end	1
Chain Fragments	2
Iron Hooks or Latches	3
Iron Bars with Hole at End	2
Brass Gun Decoration	1
Trigger Guard	1
Spurs	
Rowels	2
Fragmentary	1
Total	3
Brass Buckles	2
Iron Buckles	1
Iron Keys	3
Iron Lock	1
Watch Case (fragment)	1
Bottoms of Copper and Brass Vessels	2
Copper Container, tiny	1
Iron Pot Fragment	1
Brass Vessels, small	2
Brass Vessel Fragment	1
"Tear Cup" of Spanish Pottery	1
Sheet Copper	4
Copper Wire	1
Brass Celt or Gouge	1
Bottom of China Cup	1
Glass "Hat Pin" Knob	1
Brass Letter "H"	1
Jet Set	1
Brass Finger Rings	5
Brass Pendants and Breast Pins with Glass Sets	6
Glass Pendant	1
Crucifix	1
Brass Bugle Insignia	2
Metal Badge or Medal	1
Lead Medallion bearing coat of arms	1
Jew's Harp	1
Strips of Metal Cloth	4
Silver Coin	1
Leather Boot Heel	1
Beads	
Glass	387
Bone	9
Shell	8
Total	404
Buttons	
Brass	24
Gold Plated	3
Copper	2
Lead	2
Pearl	1
Porcelain	1
Total	33
Wall Plaster (fragments), painted red	40
Lumps of Gypsum	12
Fragments of Mica	2
Lump of Sulphur, small	1
Fragment of Slate	1
Grand Total	**1189**

Recapitulation	
European Articles	611
Articles of Indian Origin	578
Total	1189

4. Illustration of Indians' fondness for beads and cheap jewelry, as indicated by such European articles in midden.

5. Abandonment (by force perhaps) of old manner of burial in camp refuse.

6. Decadence of their native arts, even when they continued to practice them.

7. Evidence of work Indians were forced to do, quarrying stone, etc.

[Signed *A.T. Jackson* at bottom of page.]