

THE ARCH CREEK SITE, DADE COUNTY

Miami-West India Archaeological Society
and Broward County Archaeological Society

The area known as Arch Creek was one of the larger aboriginal Indian sites in southeast Florida. By Indian dugout Biscayne Bay is a little more than two miles to the east. Westward, the creek leads to the Glades. The high, dry hammock, with deep water access made an ideal village location as shown on an early 1870 map (Fig. 1). A natural bridge formed of oolitic limestone spans the creek (Fig. 2). The road that passed over its top was, originally, the Capron Trail built to connect Ft. Pierce with Ft. Dallas, now Miami. General Harney coming from the south used it to lead his men to victory over the Seminoles. Much later the road was the land route to Miami used by the early white settlers. The name was changed to Military Road, as it appears on the early map (Fig. 1).

No story about the Arch Creek site would be complete without reference to the physical characteristics that made it so attractive to the aboriginal Indian. According to Laymond Hardy (1972), naturalist, "This tract contains excellent samples of natural waterway, hardwood hammock, a wet glade and South Florida's only natural stone bridge. Rich in legend as well as its physical attributes, Arch Creek is a most striking composite of South Florida's archaeology, geology, history, flora and fauna."

The 1870 map (Fig. 1) delineates the many branches of the creek and the vast expanse of Everglades. Within a quarter mile of the natural bridge was a sulphur spring probably used medicinally by the Indians. The local shaman had plenty of herbs, roots and barks to fill his medicine bag, for there are at least 105 known species of plants found on the hammock as well as 71 species of birds and 7 species of rare tree snails (Hardy 1972). Many animals inhabited the area including deer, raccoon, wildcat, and fox. Turtles were plentiful and probably one of their diet staples. Fish and shellfish were well represented in the surrounding waters.

Dan D. Laxson (1957) of Hialeah, made an extensive study of this site and recorded it as DA 23. Arthur Marler (1967) of the Broward Society also worked there while Dr. John M. Goggin was familiar with the site but so far as is known never worked there.

Excavations

Wesley Coleman of the Miami-West India group and Robert Patton of the Broward group surveyed the site. Areas to be excavated were staked out from a central datum and a site map drawn locating excavated areas (Fig. 3). Stan-

TOWNSHIP N° 52 South RANGE N° 42 East of Principal

Read with S. G. letter

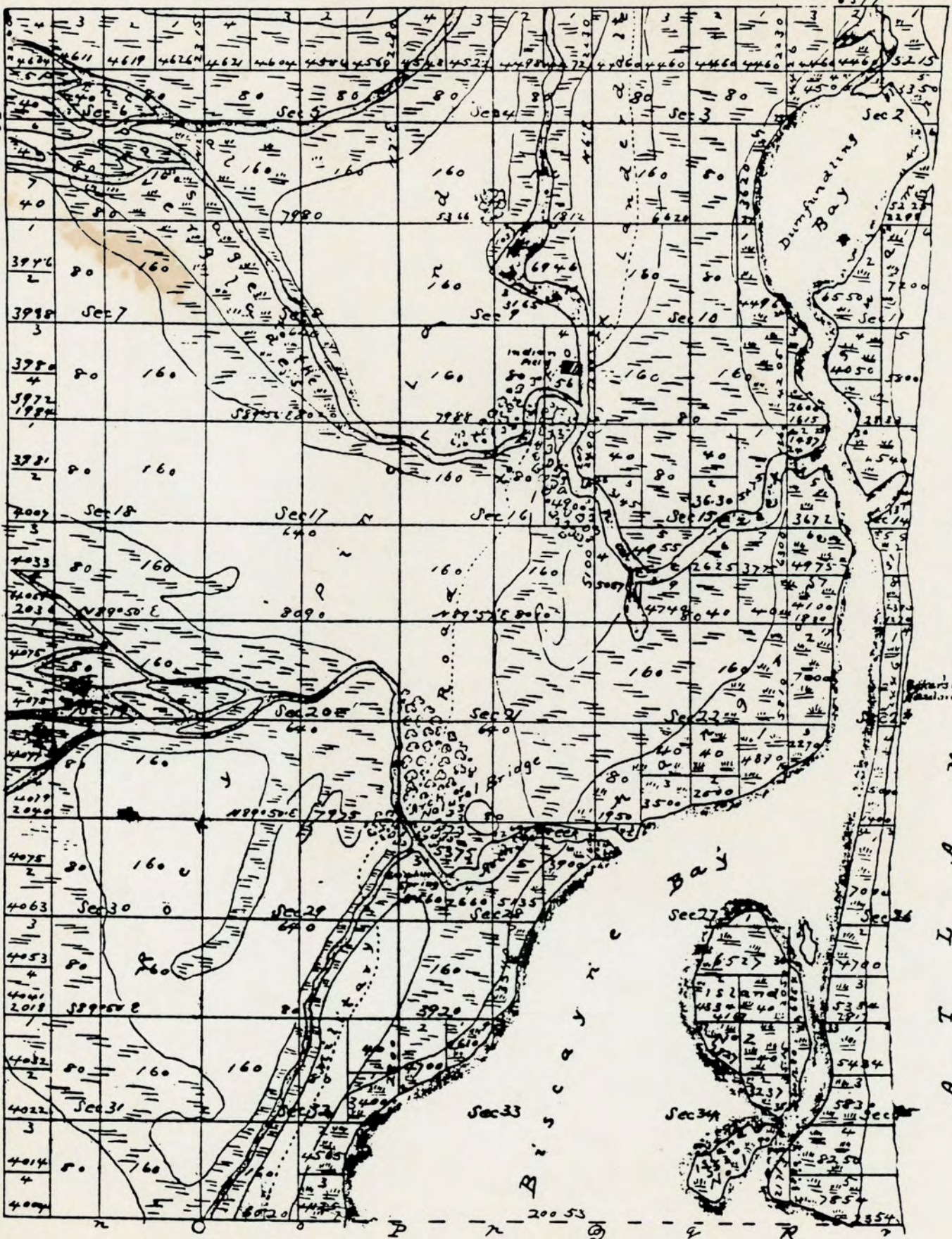


Fig. 1. First survey of Arch Creek region, note Military Road and Natural Bridge in lower center of print.



Fig. 2. 1973 drawing of natural bridge at Arch Creek.

dard 5- by 5-foot pits were measured but, because of time limitations, adjoining pits were excavated in 5- by 10-foot plots. Using arbitrary 6-inch levels all material was screened through rocker screen with 1/4 inch mesh and recorded by pit number and level. All artifacts, after washing, counting and recording, were turned over to the Miami-West India Archaeological Society for preservation. In places, Miami oolite, riddled with intersecting solution holes was found at 6 to 8 inches below the surface. All such holes were dug out by hand down to barren sand and materials found in them assigned to the level of the top of the rock in which they occurred.

Ceramics

From the 8 pits excavated, a total of 6097 sherds were recovered. Some sherds were found on the surface, but only those from the excavation were used in this report (Table 1). Almost all of the sherds were of four main wares typical of Glades sites: Glades gritty ware, Goodland Plain, Belle Glade Plain and the St. Johns series.

Glades Gritty Ware is the usual sand-tempered pottery of the Glades area. An attempt has been made to break this down into recognizable divisions, of which Goodland Plain is a West Coast variant with a fairly definite description. However, Goodland Plain was not separated in other earlier reports of this site. Belle Glade Plain is a distinctive pottery made in the Lake Okeechobee area. It is found in all levels but in the largest amounts in the latest levels.

The St. Johns series is a northern import into the Glades region. It is a chalky, temperless ware with only a little very fine sand in the paste. The 21 St. Johns Plain sherd ware equally distributed vertically but the 2 St. Johns Check Stamped sherds, and an impressed lattice-like decorated version of the same paste a marker for Glades III times, were limited to the highest level (Table 1).

The Glades Gritty Ware is subdividable, in our present knowledge of the ware, into several undecorated types: Broward Plain, Peace Camp Plain, Glades Plain and Goodland Plain. Decorated pots in the Glades series are many. Commonly found are Glades Tooled, Surfside Incised, Key Largo Incised, Dade Incised, Opa Locka Incised, Miami Incised and Matecumbe Incised (Goggin 1964). Three new designs were found at Arch Creek on at least two pots each, and designated as Natural Bridge Incised, North Miami Beach Incised and Arch Creek Incised (Fig. 7, a-c).

In addition to these, sand-tempered sherds from the Florida Bay and West Coast areas that adjoin the Glades were found. These include the Cane Patch Incised (jab and drag), Ft. Drum Incised, Punctated and Rim-Ticked, Sanibel Incised and Plantation Pinched (Table 1).

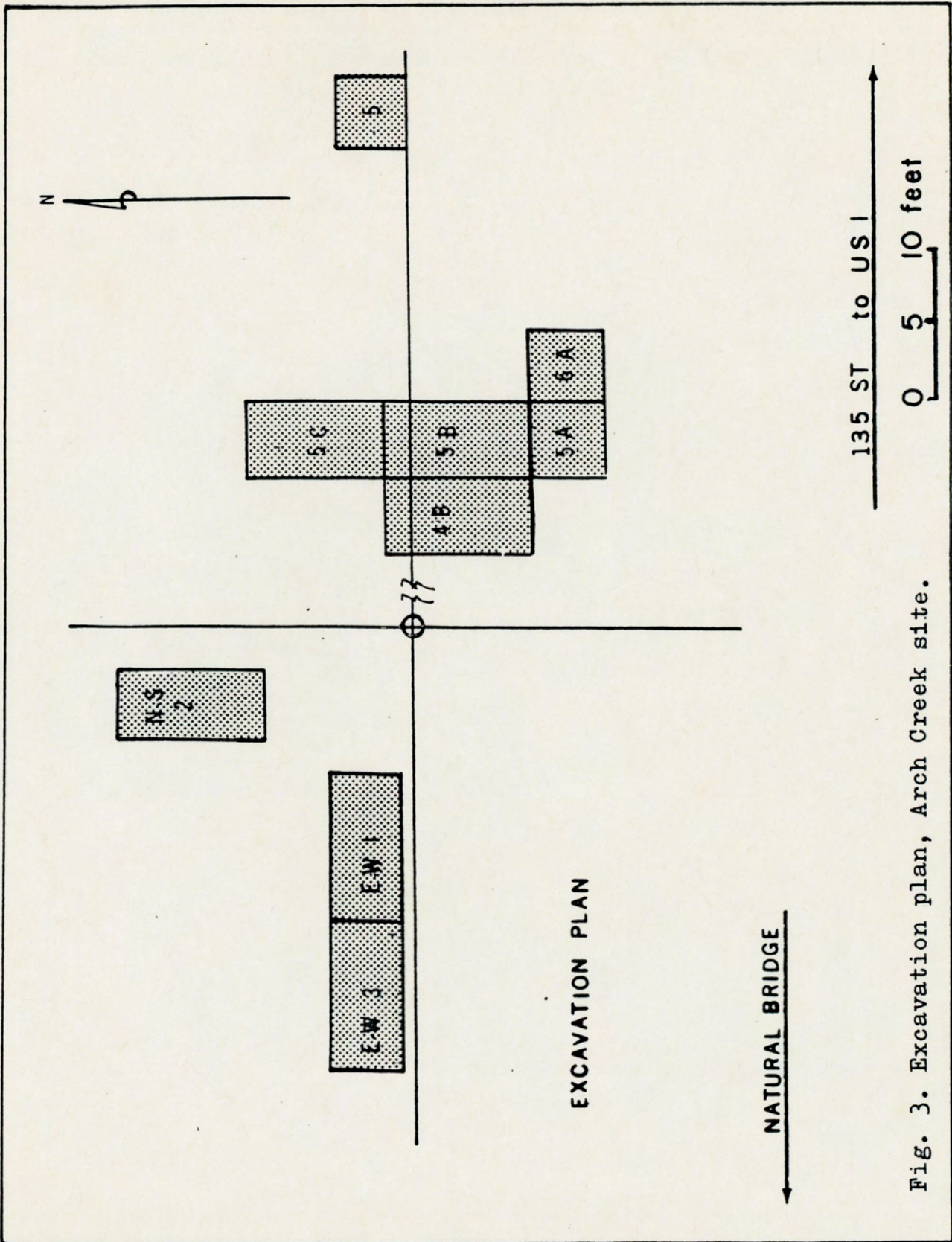


Fig. 3. Excavation plan, Arch Creek site.

ARCH CREEK

Table 1. Pottery distribution by levels, all tests.

| Pottery Types | L-1 | L-2 | L-3 | L-4-5 | Total | % |
|-------------------------|-------------|-------------|-------------|------------|-------------|--------------|
| Glades Tooled | | 3 | | | 3 | |
| St. Johns Check Stamped | 2 | | | | 2 | |
| Belle Glade Plain | 100 | 15 | 1 | 3 | 119 | 1.9 |
| Glades Plain | 1610 | 2344 | 1018 | 116 | 5088 | 83.7 |
| Goodland Plain | 117 | 210 | 57 | 11 | 395 | 6.5 |
| Broward Plain | | 5 | | | 5 | .1 |
| Glades Red | 2 | 2 | | 2 | 6 | .1 |
| Arch Creek Incised | 1 | | | | 1 | |
| Key Largo Incised | 33 | 55 | 19 | 1 | 108 | 1.8 |
| Opa-Locka Incised | 16 | 19 | 11 | | 46 | .8 |
| Miami Incised | 7 | 30 | 1 | | 38 | .6 |
| Matecumbe Incised | | 3 | | | 3 | |
| Natural Bridge Incised | | | 1 | | 1 | |
| St. Johns Plain | 6 | 8 | 7 | | 21 | .3 |
| Dunns Creek Red | | | 5 | | 5 | .1 |
| Dade Incised | 40 | 52 | 1 | | 93 | 1.5 |
| Ft. Drum rim-ticked | 4 | 11 | 14 | 2 | 31 | .5 |
| Ft. Drum Punctated | 8 | 22 | 11 | | 41 | .7 |
| Cane Patch Incised | 1 | 1 | | | 2 | |
| unclassified incised | 8 | 35 | 23 | | 66 | 1.1 |
| unclassified wares | 9 | 12 | 2 | | 23 | .3 |
| Totals | 1964 | 2827 | 1171 | 135 | 6097 | 100.0 |

Table 2. Non-ceramic artifacts by levels, all tests.

| Artifacts | L-1 | L-2 | L-3 | L-4-5 | Total |
|------------------------|-----|-----|-----|-------|-------|
| Shark vertebrae | 393 | 384 | 191 | 24 | 992 |
| Shark teeth | 12 | 1 | 1 | 4 | 18 |
| Bone bi-points | 20 | 9 | 2 | 7 | 38 |
| Socketed bone points | | 1 | | | 1 |
| <u>Strombus</u> celts | 25 | 18 | 10 | 3 | 56 |
| <u>Busycon</u> tools | 22 | 14 | 13 | 2 | 51 |
| <u>Busycon</u> vessels | 2 | 2 | 1 | | 5 |
| Columnella tools | 35 | 20 | 16 | 7 | 78 |
| Columnella tips | 95 | 76 | 61 | 17 | 249 |
| Worked shells | 35 | 39 | 33 | 10 | 117 |
| Worked bones | 9 | 3 | 2 | | 14 |
| Antler | 3 | 5 | 2 | | 10 |
| Pumice | 1 | | 2 | 5 | 8 |
| Chert | | | | 1 | 1 |



Fig. 4. Shell pendant,
7.4 cm. long.

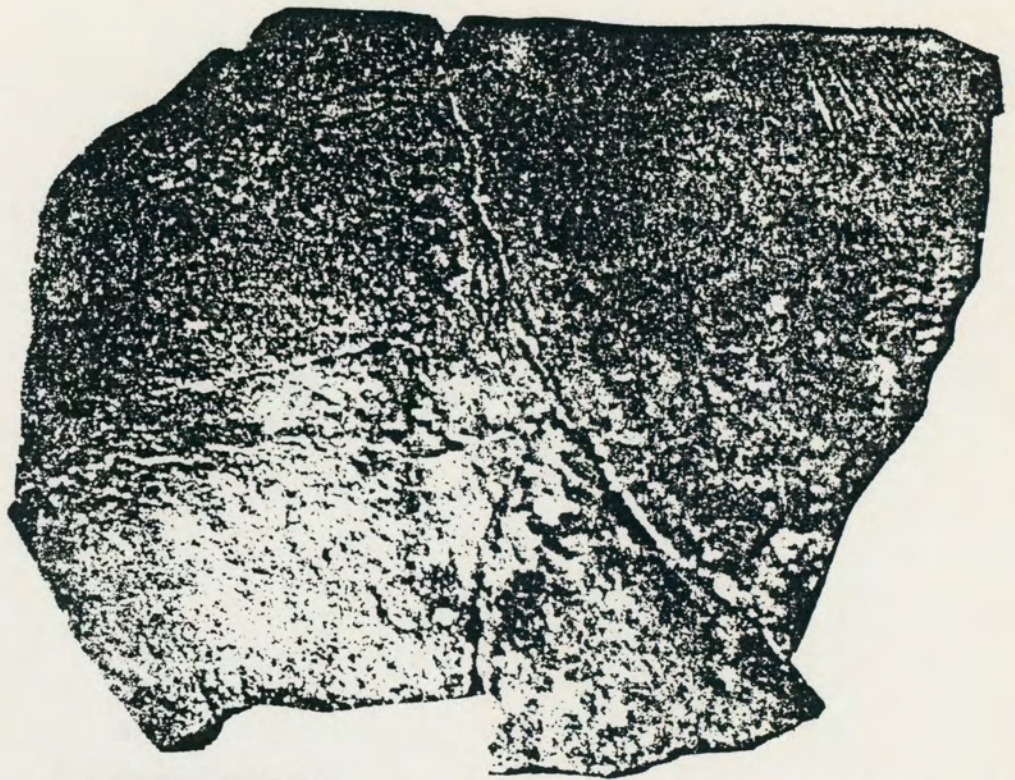


Fig. 5. Miami-Dade Incised
and unclassified finger-
nail(?) imprinted sherds.

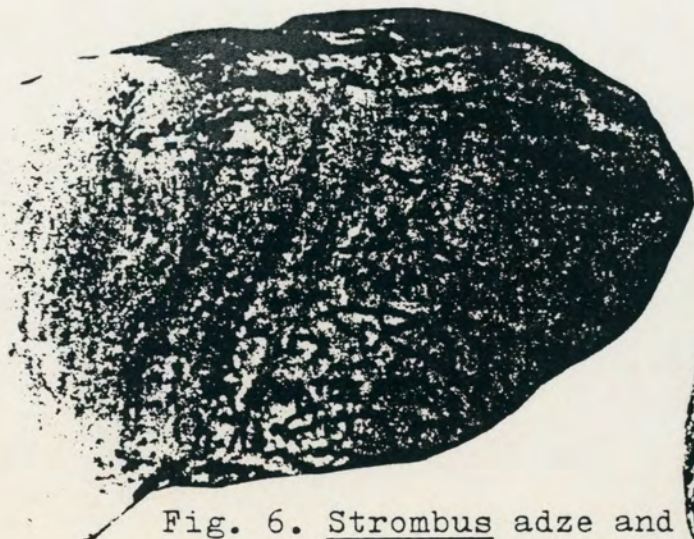


Fig. 6. Strombus adze and
pumice abraiding stone.

Glades Red was represented by 6 sherds. These are an early colored slip version of Glades Plain. Dunns Creek Red sherds numbered 5. These are a colored slip version of St. Johns Plain. A few incompleated patterns of unique designs are listed as "unclassified incised" (Fig. 7). Also, a few unrecognized exotic wares, probably from the West Coast, are listed as "unclassified wares." (Fig. 5)

The chronology of the site is indicated by the known time markers. Only a few sherds of St. Johns Check Stamped and Glades Tooled, time markers for Glades III period, were found. They were limited to higher levels (Table 1). It is significant that no sherds of Surfside Incised were found since it is supposed to be a local product. Either such material was removed from the site during real estate development or it was never deposited there.

At the other end of the temporal spread, very little early pottery was found. The Ft. Drum designs are believed to be older than the locally made incised designs with the Dade County names and are definitely concentrated in the lower levels. Dunn's Creek Red, typical of the St. Johns I period but also present in St. Johns II times, likewise had a deep concentration. But on the whole, there is very little to indicate use of the site before 400-500 A. D. [Date from National Park Service tests in Everglades National Park, J. W. Griffin, personal communication, Ed.]. The evidence indicates that Arch Creek is probably a Glades II site, with only a token use of the site in later Glades III times. This would give an occupation range from about 500 A. D. to about 1250 A. D.

The percentage composition of the various types of pottery reveals that Glades Gritty Ware, the typical sand-tempered sherds of the Glades region, accounts for nearly 95% of all sherds collected. The balance consists of Belle Glade Plain with a trace of St. Johns chalky ware. The above agrees well with the findings of Dan Laxson and Arthur Marler, considering that they did not separate Goodland Plain from Glades Plain. Also, the "pot method" of reporting sherds, used in the present dig, gives slightly higher percentages of decorated patterns. This method results in a more sensitive sherd analysis.

Key Largo Incised sherds had the highest count, with Dade Incised a close second. Opa-Locka Incised and Miami Incised were well represented. The West Coast sherds, Ft. Drum and Goodland Plain, would indicate frequent contacts across the Glades. Dunns Creek Red and St. Johns Check Stamped vessels must indicate contacts with northeast Florida.

Of more than passing interest in the pottery of this site is the great number of large sherds with similarity in thickness, rim profile, color, texture, hardness and temper. This was noticed especially in pits with a large sherd count. The effort to match body sherds to rim sherds for accurate

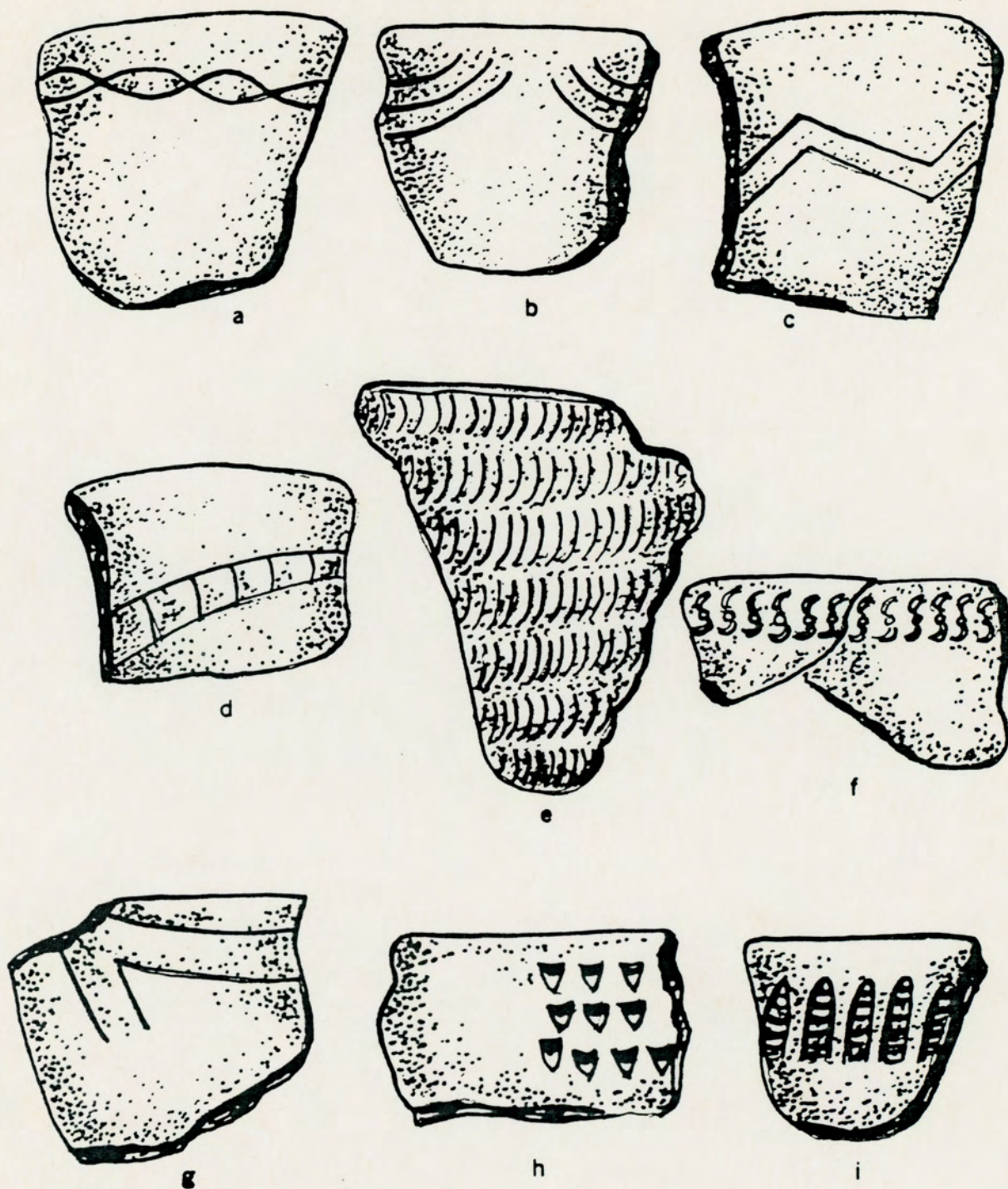


Fig. 7. Unique decorated sherds.

a, Natural Bridge Incised; b, North Miami Beach Incised; c, Arch Creek Incised; d, unclassified incised; e, unclassified fingernail imprinted; f, unclassified over-printed SS; g, possible Dade Incised variant; h, Ft. Drum Punctated; i, unclassified punctated.

classification and for possible pot restoration was defeated by the similarity of materials. This site seems to be the place of origin of ceramic variants, made of the same clay bodies, fired by the same technique, and made by the same craftsmen. Conceivably, this could be referred to as an Arch Creek product.

Close study of the incised patterns found on these similar sherds leads to further conclusions and reinforces the first one. Key Largo and Opa-Locka Incised are represented by a series of designs, apparently continuous from single loops around the rim to stacks of from three to nine loops. Key Largo probably evolved into Opa-Locka by the addition of more loops. Dade Incised, with a single loop open at the top, looks like an inverted version of Key Largo.

A new design was found which combines these two forms in a running pattern. We named it "Natural Bridge Incised" (Fig. 7, a). Also, a Dade Incised, evolved by multiple loops into a sort of inverted Opa-Locka Incised, was named "North Miami Beach Incised" (Fig. 7, b). Other unusual designs, such as "Arch Creek Incised" (Fig. 7, c), with its double zig-zag motif applied repeatedly around the edge below the rim and variants of older patterns, were found.

The conclusion is inescapable that here a vigorous ceramic industry existed which used more variation in patterns than previously known. Added to the fact that many large sherds, unmarred by use, and almost indistinguishable one from another were recovered, and that many patterns occurred on identical pastes, it is easy to believe that this site is the home of a ceramic industry in the Glades area. No good source of clay was found, nor any identifiable kilns. However the existence of a natural bridge (Fig. 2) might indicate a cave deposit or concentration of clay material near the site.

Non-Ceramic Artifacts

These artifacts are listed by levels in Table II. The Arch Creek site, while not a typical shell mound, contains a vast amount of shell, presumably brought from Biscayne Bay for food. The location on a stream navigable by dugout canoe is ideal because of the inexhaustible supply of fish and shellfish near by. Many shells apparently served as cooking pots, spoons, knives, scrapers, shell openers and decorative ornaments.

The Busycon whelk is a large, plump shell with a handle-like extension on it. Archaic people cooked food in these before ceramic pots were invented (Webster 1970). With the addition of a long wooden handle, the whelk became a pick for digging. Tips of shell columnellas broken off at an angle to form a hard, sharp point, were found by the thousands though only 245 were chosen for a count. Perhaps they were used for wedges to open shellfish.

The Strombus celt, an axe, adze, or scraper made from the heavy conch lip, was a primary tool here. Many of these celts are long, thin, and narrow, and may have been used as scrapers in hide dressing.

A fine columnella pendant, or plummet, with a circular groove for suspension was found in Level 1 of Pit 6A (Fig. 4). There were many worked shell artifacts. Some were fragments shaped by grinding. Some were drilled and made into gouge-like tools.

Bone projectile points were fairly numerous, but only the bi-points were found. The bi-points were typical slit deer bone ground and polished in the Glades fashion. Several fragments of bone pins, a flat bone pendant, some flat bone pieces, notched or drilled, were found. (Table 2)

Shark vertebrae were abundant but only a few were drilled and so true artifacts. The rest could have been used as ear plugs for personal adornment. There were comparatively few shark teeth recovered and only one was perforated. This may indicate little use of the shark tooth knife or engraving tool here, in sharp contrast to Glades sites in general.

A faunal analysis, assembled by the Miami-West India Archaeological Society and made from excavated bones from the site include: Odocoileus virginianus (white tail deer), racoon type animals, fox, Testudinata (turtle), terrapene (box turtle), caretta (sea turtle), Alligator mississippiensis (alligator), shark and fish.

There were a number of pieces of pumice found in the site. It is possible that they were used for grinding and polishing bone points or celts. One Strombus adze, found just prior to our excavation at this same site, was associated with a large piece of pumice (Fig. 6). One tiny flake of chert was found but no other stone.

Summary and Conclusions

The Arch Creek site was a substantial village, well located and accessible, with a good game supply and well stocked streams. It probably supported a sizable population over a long time span. The archaeological richness of the area would indicate a favorable place in which to live. Its position on the waterways and close to the bay suggests trade with others by dugout.

The time span for the use of the site, based on the pottery found there, appears to be from around 500 A. D. to the end of the Glades II time, around 1250 A. D., with only occasional use thereafter. It is possible that Arch Creek was the ceramic center for the lower East Coast area during Glades II times, based on ware and design similarities. Clay deposits found there may have

been exhausted, leading to removal of the population westward into the Glades or elsewhere. According to Dan Laxson, an astute observer and a local authority on the Tequesta Indian, the Arch Creek villagers may have abandoned the site in favor of another site at Madden's Hammock, further west on the same waterway. Glades III pottery was found there but little Glades II material. Arthur Marler, in his report, suggests a move to sites along the Uleta River just north of Arch Creek.

There is no definite knowledge that this was not also a Glades III site. Vandals have pot-holed the area for forty years. In the early 1930's a trailer park was built on the site, and it is possible that the top level was destroyed when asphalt was put down.

The Tequesta Indians were in the ascendancy of their culture towards the end of the Glades II times. Why would they abandon such a rich area, if indeed it was abandoned, when there were few other sites in the Glades to compare favorably with this one?

Acknowledgements

Permission to excavate the site for a period of 60 days was given by the attorneys for the Chrysler Corporation through Mr. Harvey Ruvin, attorney for the Miami-West India Archaeological Society. The Broward County Archaeological Society assisted in the many phases of the work.

Alice Cohen of North Miami Beach and Jessie Freeling of Belle Glade led the movement to preserve the site. They were joined by Maureen Horvitz and hundreds of school children and, through their concerted effort, the site was brought to the attention of the State of Florida. Early in 1973 the State acquired the site for use as a park.

We wish to acknowledge the special contributions by the following people: Dr. Gillis of Fairchild Gardens, Laymond Hardy, naturalist, and Wesley Wilson, naturalist, for flora identification. Our appreciation to Adelaide and Ripley P. Bullen of the Florida State Museum who visited the site and later helped to classify pottery. Our thanks to Joseph Pellar for the Strombus adze and punice abrading stone found together in the site during an earlier investigation. Artifacts, bone and shells were described and recorded by Bert Mowers and Wilma Williams. To the many members of both groups who worked at the excavation for the entire two months we wish to say thank you, for without their work this report would have been impossible.

The entire report is a combined effort by the two Chapters, prepared from field notes and records by Bert Mowers and Wilma Williams of the Broward group and Mark Greene and Wesley Coleman of the Dade group. The mate-

rials were coordinated by Wilma Williams, Marion Henriquez and Norcott Henriquez. Credits: photographs by Stephen Baig, artifact drawings by Wilma Williams.

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