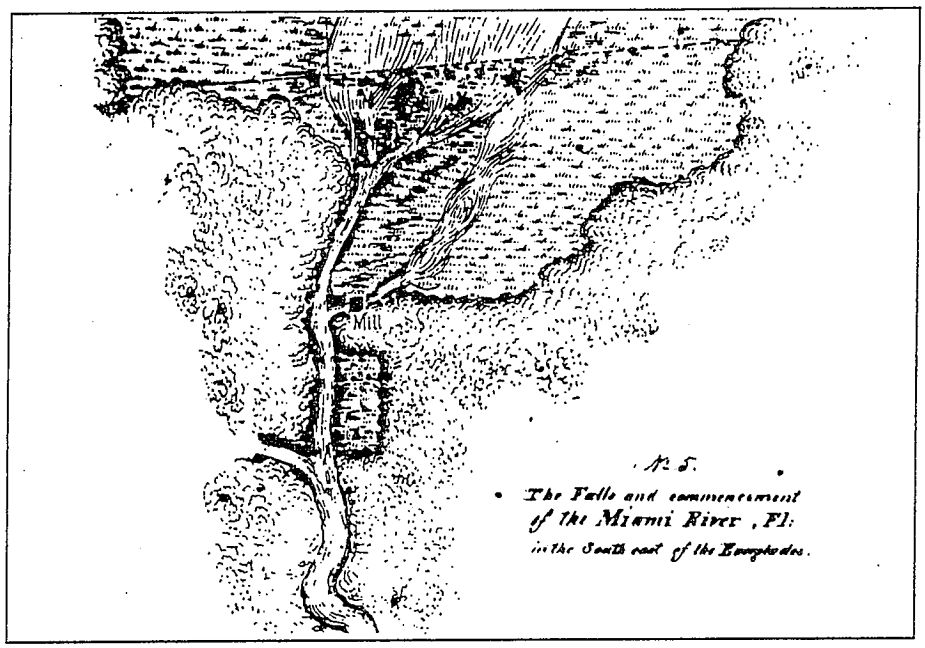
Archaeological and Historical Investigations of The Miami River Rapids Site, Dade County, Florida



conducted by
The Metro Dade Historic Preservation Division
Office of Community Development
and
Archaeological and Historical Conservancy

AHC Technical Report #36
June 1994

Archaeological and Historical Investigations of The Miami River Rapids Site, Dade County, Florida

By

Robert S. Carr
Project Director

Debra Sandler
Jorge Zamanillo
Field Directors

W.S. Steele
Historian

AHC Technical Report #36
June, 1994

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACKNOWLEDGEMENTS

The Miami River Rapids archaeological project has now spanned fourteen years since the first test hole dug at Frenchy's Welding Shop. This project could not have been successful if not for the hard work and contributions of a large number of people and organizations.

The contributions of historian, Arva Parks and journalist Howard Kleinberg, were instrumental in providing the historical data that helped spur the original archaeological investigations. The archaeological excavations included volunteer work by numerous members of the Archaeological Society of Southern Florida including Barbara Tansey, John Carruthers II, Grant Hammerberg, Seth Lethkof, Darrell Cunningham, George Cummings, and Beth Read. Employees of the Archaeological and Historical Conservancy also manned the trenches, and aside from the co-authors, contributing individuals included Joe Davis, Don Mattucci, Mark Duda and Kim Heinz.

The cooperation of Miami Bridge, Inc. and their architects was outstanding and we owe a special thanks to Miami Bridge executive director, Maxine A. Thurston and architects Luisa Murai and Raul Rodriguez of Rodriguez & Quiroga architects. The contractors, Matrix Construction Company and Charlie, their construction manager, also were very cooperative.

The support of Florida's Division of Historic Resources was invaluable and Jim Miller, director of the Bureau of Archaeological Research, generously supported our request for assistance providing $2900 to assist our financially strained project to allow for the

completion of the artifact analysis and preparation of this report. A special thanks to Louis Tesar of that same bureau who designed and executed the 1A-32 research permit, and patiently prodded us on this project so we could honor our final contract deadline.

Through the years, the private property owners who owned the various lots were helpful and supportive of our work. A particular thanks to Agenand Merci and his family, who generously donated artifacts recovered on their property to the Historical Museum of Southern Florida.

Finally, our thanks to the Historical Museum of Southern Florida who are curating the storage of this collection soon to be officially on loan from the State of Florida, and George Chillag of the Historical Museum of Southern Florida, who provided the photographs for this report. Other photographs and conservation of various metal artifacts was conducted by John Maseman. Maps and graphs were drafted by Richard Ferrer and Jorge Zamanillo.

INTRODUCTION

From 1978-1980, the Metro-Dade Historic Preservation Division conducted a two year archaeological survey of Dade County. A review of historical data for that project had indicated among the sites of particular historical significance was the Ferguson Mill site, located adjacent to the rapids at the headwaters of the Miami River. In 1980, the location of the rapids and the headwaters was completely unknown to scholars because of the tremendous alterations that had affected the area. The river had been channelized, adjacent areas filled and extensive development had occurred along the river since the founding of the city of Miami in 1896.

The Miami River rapids was once the prime tourist attraction for the city's first visitors from 1900-1910, and was the feature attraction of a boat trip from the mouth of the Miami River. This trip was often supplemented with a special train tram that ran through the tropical hammock, ending with visitors disembarking and walking across wooden planks along the muddy river bank to a wooden observation tower especially built to allow visitors to view the vast Everglades stretching westward from the river's headwaters. Despite thousands of visitors and numerous postcards of the rapids, in 1980 no historic marker pointed the way to this site and not one informant or present day documentation could be found to locate this site in relation to Miami's present day streets and features. As difficult as it is to believe, in 70 years a major landmark had disappeared without a trace or a memory.

The site's disappearance was augmented by the popular misconception that the rapids had been dynamited and destroyed when the Miami River was dredged in 1909. However, when these archaeological investigations began in 1982, pieces of information began to surface to indicate that the popular notions about the rapids demise were at least partially incorrect. During that year, Historian Arva Parks shared with Robert Carr, archaeologist with the Metro-Dade Division of Historic Preservation, a number of maps including the Gerdes survey of 1849 that identified the location of a coontie mill at the headwaters of the Miami River. Howard Kleinberg, then editor of the Miami News and author of many articles on Miami's history, joined the two to compare data and visit an area on the old north fork of the Miami River that Carr thought might be the site of the coontie mill. The location was adjacent to the Miami Canal in a large grassy lot with a CBS house structure converted for use for manufacturing storm shutters. Several subsurface tests dug on the property revealed hard limestone rockfill across most of the parcel. Carr then obtained the use of a backhoe and on June 28, 1982, dug several test trenches which penetrated the fill and uncovered a large whiteware blue transfer plate fragment and a long wooden pine pole lying beneath the fill. In addition, some prehistoric artifacts were found. Also, Carr excavated several test holes at Frenchy's Welding Shop and uncovered historic and prehistoric materials.

No subsequent testing was done at that time, but a site form was submitted to Florida's Division of Historic Sites based on

those discoveries and the site was provided with the site number 8DA1655. In 1986 the City of Miami designated the area as an archaeological site; the first archaeological site designated by the City. The designated boundaries of the site included four lots - three of which included private parcels and the third a small city park then known as Paradise Point Park. As a result of the historic designation, the city park's name was changed to Miami River Rapids Park. The parcels on either side of the park were privately owned, one of them, the previously mentioned storm shutter company owned by Mr. LaRoca and the other adjacent lot was owned by Bruce Sugar who used several small CBS buildings on the property as part of a marine salvage business. The fourth lot located west of the Sugar parcel was Frenchy's Welding Shop owned by A. Maricend. Carr approached the owners and advised them of the historical significance of their properties and encouraged them to some day consider their public sale so that the park could be expanded.

In 1989, Bruce Sugar contacted Carr to advise him that he had acquired the LaRoca parcel and was attempting to conduct a land swap with the State of Florida that would provide him with property directly adjacent to the Miami Canal. Sugar asked Carr's assistance to write letters to the State to support the land swap based on the potential expansion of the park and preservation of the site.

The Metro-Dade Historic Preservation Division encouraged the transaction and in 1990, when the public acquisition was completed, Carr and other preservationists were shocked to learn that the two

State parcels had been leased to the City of Miami who promptly leased the property to Miami Bridge, Inc., a private not-for-profit corporation dedicated to working with children in need, to allow them to build a new facility with a 24-bed shelter home on the property. Tempering what appeared to be the imminent destruction of the site were the assurances of the Miami Bridge, Inc. and their architect, Raul Rodriguez, that they would do all they could to preserve the site and construct a facility that would be both sensitive to the site and adaptive to minimize adverse impacts to both archaeological remains and existing environmental features. Also, the existing park parcel would not be built upon the known site boundaries and the central parcel would remain as a park between the Miami Bridge facilities.

A project mitigation plan was developed that included phase II archaeological testing across the project parcel, combining with monitoring of construction work by an archaeologist, and phase III excavations of any features or site areas uncovered during monitoring that would be destroyed by construction activities.

The State of Florida's Division of Historic Resources reviewed the project and agreed that archaeological mitigation would be required. A 1A-32 research permit was granted on March 22, 1991 to conduct the archaeological investigations. Several project deadline extensions were granted by the State with the final deadline of June 15, 1994 to complete the analysis and report.

On March 19, 1991 phase II testing of the eastern parcel began. In August, 1993 the final elements of archaeological

investigations were completed with monitoring and salvage excavations of the area within the west parcel affected by parking lot construction. This report presents the results of those investigations.

PROJECT SETTING

The Miami River Rapids Site (8DA1655) is located at 2810 N.W. South River Drive in section 33, of Township 53 south, Range 41 east. The location is bounded on the north by the Miami Canal, on the south by the north fork of the Miami River, on the east by a small unnamed creek (which in the report map, figure 2, we refer to as Ferguson Creek) and on the west by a parcel owned and used as Frenchy's Welding Shop. The project parcel as related to the investigations encompasses three parcels (lots 6 and 7) for a total of about 3 acres. The eastern and western parcels are owned by the State of Florida and are leased to the City of Miami, who have in turn leased them to Miami Bridge, a not-for-profit corporation that works with children in distress. These two State parcels have several CBS structures built prior to the State acquisition. Other structures have recently been renovated by Miami Bridge. Other improvements have included the building of a parking facility on the west parcel, irrigation and lighting and minor landscaping.

Most of the work conducted during the investigation was done on the east and west parcels, where the principal construction work was conducted.

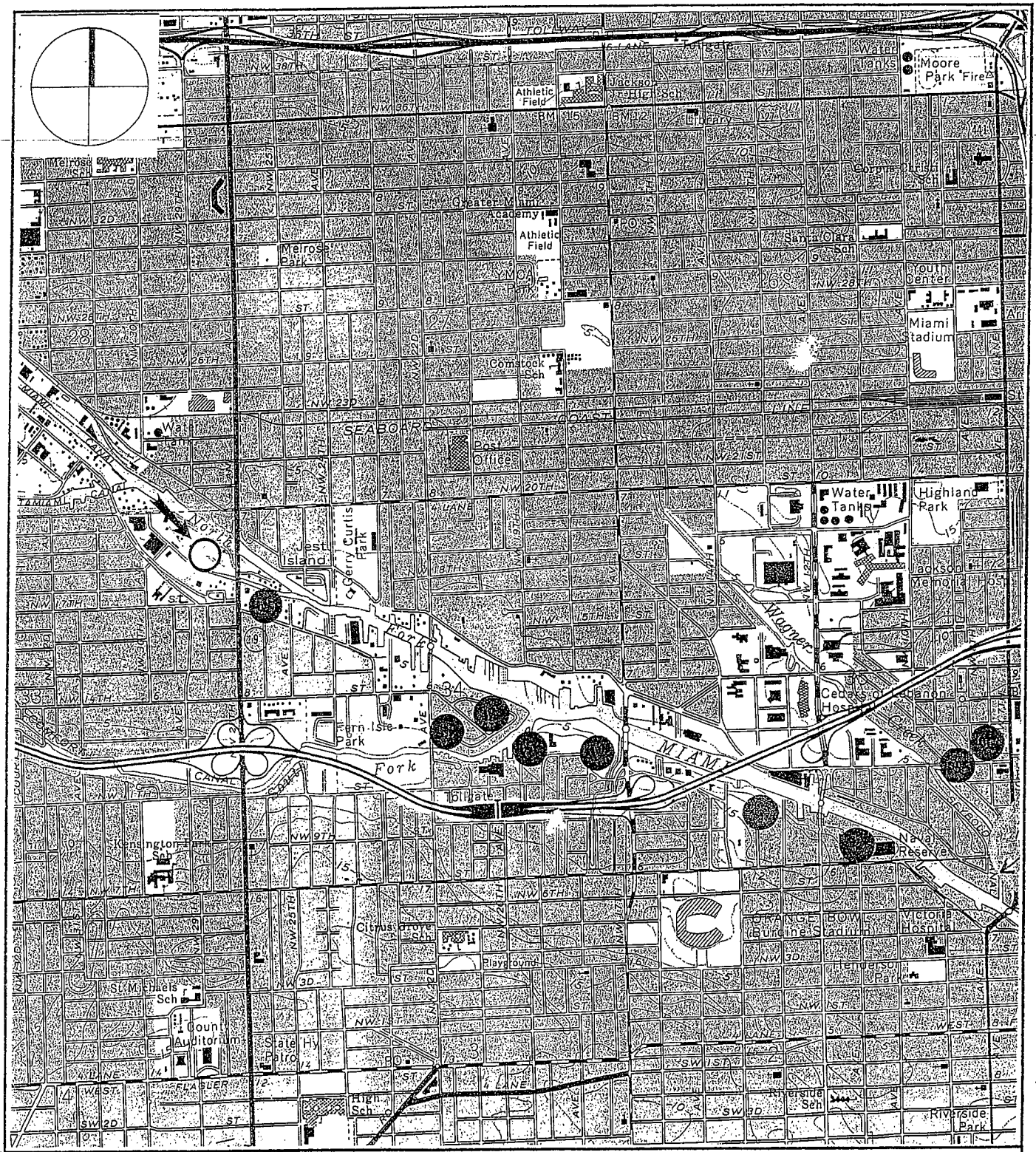


Figure 1:
MAP OF
PROJECT AREA

1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER

SOURCE : U.S.G.S. MIAMI (1969)

R.F. '93

HISTORICAL SUMMARY

The Miami River Rapids was formed by the waters of the Everglades draining eastward across the Atlantic Coastal Ridge into the Miami River on its 3 1/2 mile descent to Biscayne Bay. The rapids provided a rare geographic contrast to the low tranquil wetlands of South Florida, since the elevated ledge and channel poured thousands of tons of fresh water each day from the Everglades towards Biscayne Bay during the rainy season. This feature attracted the attention of Miami's earliest visitors and settlers but they left little record of it. Eighteenth century British surveys by William Gerard DeBrahm and Bernard Romans reflect the maritime interests of the time, showing great detail of the coast but little of the interior regions. As late as 1837 Major General Thomas Sydney Jesup, frustrated in his efforts to engage the elusive Seminoles, reported that he had "as much knowledge of the interior of Florida as...of the interior of China" (Kieffer 1979:160). This was during the Second Seminole War, 1835-1842, one of the longest, fiercest and most expensive wars the U.S. Government would ever wage against the Native Americans. Jesup and those officers who followed him in the command of the U.S. troops in Florida, set about gaining information about South Florida's topography. To map the land was in affect to wrest it from the possession of the Indians and make it available for the use of American settlers. As these surveys progressed, the land available to the use of Indians diminished. Each township surveyed provided a jump-off point for the next to be surveyed. In 1839, a single

line survey intended to measure the elevation of the Everglades was run from the mouth of the Miami River to its headwaters in the Everglades near the rapids. This was the first survey of the Miami River. Over the next year naval expeditions would travel 5,000 miles in canoes examining the vast uncharted wilderness of South Florida. Information gathered by these and other military expeditions of the same period would form the basis for the first modern scientific knowledge of the Everglades and the surrounding area (U.S. Senate 1911:5).

With the end of the Second Seminole War came the beginning of a resettlement of the Biscayne Bay area (known as Cape Florida during the early nineteenth century). The violence of that conflict had caused the virtual abandonment of the small Cape Florida community. The removal of most of the Seminoles to reservations in the Arkansas Territory and a tentative peace with those few Indians remaining in Florida encouraged settlers to again venture into the more remote parts of the State. Several of the families which moved into the Miami area built mills for the production of coontee (*zamia floridana*) flour. These mills employed many people and were a significant part of the local economy.

The coontie plant from which the flour is made has toxic properties which make it more difficult to produce starch from than, for example, wheat or corn. The starch is obtained from the plant's tuberous roots. The process is as follows:

The coontie plant grows in the sandy pineland areas of South Florida. A harvester could collect five of six barrels a day.

Estimates vary considerably on how many barrels of root it took to make a barrel of finished flour (250 lbs.). This may have to do with the quality of the finished product. A contemporary of the early mills stated it took five barrels of root to make one barrel of flour (Kleinberg 1985:126). In the nineteenth century the plant grew in Dade County in such abundance that the J.C. Ives map of 1856 shows a large area in present Dade County as the "Coontie Grounds." This area was regularly visited by the Seminoles for harvesting.

Manual operations used perforated sheet metal, usually soft metals, such as tin, zinc or even lead, to grate the coontie. Larger operations would make a grinder "by driving rows of shoe peg nails into two short round logs and making one log turn against the other so that the nails chewed up the roots."

The ground coontie was then placed in some sort of sieve under which was a vessel for collecting the starch. The starch settled in the bottom of the tank, and the water containing the toxin was drained off.

The remaining starch consisted of two layers, a white layer, the pure starch, covered by an impure yellow layer. Both layers were edible, but the white layer was more highly prized. Early manufacturers may have used both layers but later producers did not. This may be the reason for the discrepancy in estimates to how many barrels of roots it took to make a barrel of flour. Gerdes (1849) gave the ratio at five to one while Thelma Peters (1976) reports it at nine to one.

The starch was then dried and placed into barrels. It was generally shipped by way of Key West to markets in New Orleans and Charleston (Peters 1976:38-39, Kleinberg 1985:125).

The finished product was similar to arrowroot, a close relative, produced in the Caribbean. The Caribbean arrowroot brought seventy five cents a pound in the 1840's while that made in Miami was going for ten cents a pound, giving the Miami producers a clear advantage. The product apparently sold well and any early settler who needed cash could grind a barrel and ship it to market (Kleinberg 1985:125).

While coontie could be produced manually or with animal power, the larger mills used water power. Mills in Dade County were set up on Arch Creek, Little River, Wagner Creek and the Miami River. The largest was the Ferguson Mill on the Miami River. The Ferguson brothers, George Washington and Thomas Jefferson Ferguson, were among the first to resettle Miami after the Indian war. They had come with their families from New York to Key West about 1843, and arrived in Miami in 1844 (George and Knetsch 1990:5). There were at least two other Ferguson brothers, Daniel and Fernando. Daniel was with Thomas in California at the time of the 1850 census and does not appear on the 1844 Dade County jurors list. His family lived in Danbury, Connecticut. All of this combined with his success in the California gold fields, tend to indicate that his connection with the Miami operation was minimal to none. The fourth and youngest brother, Fernando, acted as a clerk for the Miami mill. Other Fergusons, Albert, Isaac and William, appear on the 1844 Dade

County jurors list, but their relationship to the family is unclear (Bonawit 1980:12).

Letters of George, the oldest brother, and Thomas provide a curious insight into the contrasting character of these two brothers. George was at home addressing letters to the Secretary of War which were well written letters reflecting a high degree of education and political insight. Thomas, on the other hand, could misspell three out of six words in a sentence.

Soon after arriving in Key West, the Fergusons came to Miami and established themselves at the head of the Miami River. Rose Richards, daughter of William Wagner, who arrived in Miami in 1858, stated in a 1903 Miami News article that the brothers built not only the coontie mill at the rapids, but also a saw mill and homes for their families (Richards 1903:NP). Contemporary maps of the area, correspondence between Thomas and his wife and census records all indicate that the families of the brothers lived in Key West, not Miami. Furthermore, the sawmill and coontie mill were one in the same. The Fergusons spent $5,000, their life savings, building the mill. Originally built as a sawmill, it was converted to a coontie mill sometime before 1846. There are no illustrations depicting the mill other than the 1849 Gerdes map (see cover) but some hint of its adaptable functions are reflected by the fact that people who saw the mill in 1849, years after its conversion to a coontie mill, referred to its having been built as a sawmill (Cooke 1849:NP).

The mill building was built directly over a northern prong of

the north fork of the river. Early surveyors consistently show the mill but not the dam which powered it. This is probably because the mill, as at Arch Creek, was built over the dam. Surveyors' field notes indicate that the dam was ten chains (660 feet) due west of the north-east corner of section 33, Township 53 south, Range 41 east. This would be very near the location of the early 20th century Miami Water Company and also very close to the Miami Canal. This would fit with Ralph Munroe's comment that he had seen the remains of the mill, but after the construction of the canal, he never saw it again (Munroe 1974:95).

Near where the mill was built the river divided into three branches. Each had a rapids. It was the middle or main branch which had the largest rapids which in the late nineteenth century would become a tourist attraction. Here the water from the Everglades would fall six feet over the length of one-hundred fifty yards. The rapids were fifteen to twenty yards wide. It was apparently an impressive site as the first survey of the state of Florida done in 1846 made note of it, referring to it as the "Falls".

George Ferguson made arrangements with a Joseph Y. Porter of Key West for Porter to receive coontie produced at the mill in exchange for goods. Porter gave the Fergusons four cents a pound credit on the flour, and then made arrangements to ship the flour from Key West to market in New Orleans. After deducting costs, Porter and the Fergusons would split the profits which varied depending on the market. This agreement seems to have worked out amicably until Porter, believing he could get a better price for

the flour in Charleston and being unable to arrange for the flour to be shipped to New Orleans, shipped 1725 pounds of Ferguson's flour, valued at $140, by way of the small mail boat bound for Charleston. It might not have been a bad decision had not the mail boat sunk in a storm. Mr. Porter died soon after. George sued his heirs for the value of the shipment claiming he had not authorized Porter to ship the flour to Charleston. The case went all the way to the State Supreme Court. In January 1851 the case was declared a mistrial by that court (Supreme Court of Florida 1850:27-41; Supreme Court of Florida 1852:102-111).

Undoubtably, coontie flour sales by the Fergusons were among the highest in Dade County. Paul George and Joe Knetsch's report that:

> "During one year in the late 1840's, the Ferguson Brothers employed twenty five laborers who produced 300,000 pounds of coontie starch, netting more than $24,000 from the sales; this figure represents about $650,000 in 1990 (1990:5).

The particular prong of the river chosen by the Fergusons for their mill had several natural advantages over those nearby. Unlike the main fork from which it branches, which is broad and shallow, the mill branch is narrow and deep with nearly vertical walls. Its source of water was not only the Everglades, which would dry up in times of drought, but there was a spring at the head of the creek which would continue to provide water for the mill even during the drier times. The purity of this water probably assisted in the rinsing process as well. Later, when George Ferguson moved the operation to 12th Avenue on the river, the incursion of salt water into his water supply due to a drought would ruin a batch of his

starch, the poor quality of which would cost him considerable business (Richards 1903:NP).

There were disadvantages to the mill's location as well. It stood on unsurveyed land on the edge of the wilderness of the Everglades where the remnants of the undefeated portion of the Seminoles was known to reside. Viewing the Seminoles as a threat, as did many settlers, George complained about their presence, "If it wasn't for that menace, South Florida would soon become what nature so evidently designed upon other genial climates, fresh pure streams, rich hammocks, and other numerous spontaneous products." Another war would in fact break out with the Indians, and frontier violence between the two cultures would go on unabated even during times of peace. Coincidentally, as late as 1908, a surveyor surveying for the Miami Canal would be shot by a Seminole. When violence broke out on the Florida frontier in 1849, George sent an "I told you so!" toned letter to the Secretary of War (Kleinberg 1985:126).

Another subject, not wholly unrelated to Indian removal, which interested George and many other Floridians was the reclamation of land through the draining of Florida's wetlands. James Gadsden claimed to have come up with the idea, but a list of all those who had the same idea would pretty well encompass most of the early settlers and soldiers of the region. On December 30, 1842, the United States House of Representatives passed a resolution that "the Secretary of War be directed to place before this House such information as can be obtained in relation to the practicability

and probable expense of draining the Everglades of Florida" (U.S. House of Representatives 1843:1). This was only a few months after peace had been made with the people who were the only inhabitants of the Everglades, the Seminoles. The Surveyor General of Florida pointed out that until the Everglades could be drained they could not be surveyed (Ibid.:2). In 1850 when a federal land reclamation act was passed, nearly a third of the state remained unsurveyed. By 1859, only the most inaccessible parts of the Everglades remained unmapped. In the interim, a war had again been fought with the Seminoles, a war started by an Indian attack on a survey team.

In 1845, George McKay surveyed the land on which the Ferguson mill stood. True to form the land was almost immediately sold. The Fergusons, however, were unaware of the sale. They had complained for years about the lack of proper mail service to the Miami area. George would eventually become the postmaster. In the meantime. lack of communication with the outside world had prevented them from acquiring the land in which they had invested three and one half years of work and their life savings. George referred to it as the "Jubilee sale." Thomas wrote that he was informed by McKay "that a man in Delaware has perchast the land on which were Located..." McKay acted as the agent of the buyer of the land who name was Polk. Rose Richards stated that Mr. Polk was a relative of President Polk, but this cannot be confirmed. Thomas, understandably upset, wrote "I am rather inclined to think that there is something about it that isent rite..." (George and Knetsch 1990:9). Polk bought a total of 320 acres in the area of the mill,

including the spring, for $1.25 an acre.

The mill operation did not stop with the sale of the land. The Fergusons continued to operate the mill until about 1850 or 1851, when George moved the operation to 12th Avenue and the river.

To make matters even more difficult for the Fergusons, a brief "war" broke out with the Indians. Only a footnote in the history books, the Indian scare of 1849-1850 seemed at first to be the general outbreak that the settlers had predicted. It caused the abandonment of many settlements and the re-opening of several forts in the area. Governor Thomas Brown had reports that "there remains but one single person south of New Smyrna on the Eastern shore..." By this time, Thomas Ferguson had joined his brother Daniel in Panama from where they made their way to the California gold fields to seek their fortune. As Thomas put it in a letter to his wife Rosalinda "give me the digging of the root of all evil, not compty roots..." George sought the safety of Key West for a short time, but was soon back in Miami.

During this conflict the Ferguson mill was briefly used as a military outpost. The soldier in charge humorously referred to the place as Fort Desolation. The following is an excerpt of a letter written by that soldier, Anson Cooke, to his wife. The letter was written November 1, 1849.

> "You will see my own Dearest by the heading of this that I am some whereso I will at once tell you that I am at the headwaters of the Miami with a detachment of six men guarding one man, (who is making coontie or Arrow root), from the Indians who are said to be in the vicinity. I am in supreme command here and five miles from Fort Dallas and I live in the open loft of a mill, (built for a saw mill) so that if I talk too loud for you when I return

> you must charge the whole circumstance for one has to speak very loud here to be heard above the din of the waters and the grinding.
>
> The mill shakes me so that I can scarcely write at all, and it is now quite dark, I could not write for before my men have been busy all day putting sides and ends to my room which was before entirely open to the weather and last night I slept very cold, which would not however have been the case if I could have had you my love in my arms. I cannot write with a light the mosquitoes are so thick and even now I have to keep one hand busy all the time to keep them off and even then I succeed very poorly. I must quit for I can no longer see what I am doing" (Cooke 1849:NP).

The brief conflict was otherwise uneventful and George continued operating the mill during its last years with unusual success. In one year the mill produced 300,000 pounds (1200 barrels) of coontie starch worth more than $24,000. At this time he had 25 people employed at the mill. The 1850 Dade County Census gives a partial listing of those working for Ferguson:

> George W. Ferguson, 38, of New York
> Fernando F. Ferguson, 23, of New York
> George H. Parker, 32, of England
> William I. Smith, 34, of Maryland
> Andrew B. Pacety, 20, or Florida
> George Mazlen, 21, of England
> Peter Leith, 32, of Germany
> James Davidson, 30, of Ireland
> George Marshall, 50, of England
> George Baker, 17, of Belgium, and
> Charles Lee, 22, of New York

One of these employees, George Marshall, had a house nearby on the south fork of the river. It is the nearest structure to the mill on contemporary maps. What if any of the mill's activities occurred there is unknown, but Marshall apparently continued to work at Ferguson's even after it was moved to the 12th Avenue site where in 1861 he murdered the oldest brother of Rose Richards. He

escaped before the sheriff arrived and was never seen again (Richards 1903:NP).

The history of the coontie mill at the rapids ends with the move to the 12th Avenue site. George would continue to make coontie at that mill through the Third Seminole War 1855-1858. When the Civil War broke out in 1861, he sold his Miami properties to George Lewis, and went to Key West where he went into partnership with a man named White operating a "general mercantile store" called White and Ferguson located near Tift's dock on Front Street. During the war he joined the Key West Union Volunteer Company. Ironically, the end of his work in Miami came about when Union soldiers burned his old mill in reprisal for the new owners (George Lewis) blockade running activities.

Thomas and Daniel were successful in their California venture. Thomas made about $90,000 in little over a year and returned to Key West. He later bought a home in Baltimore where he lived until his death in 1865 (Bonawit 1980:29).

The Civil War, like the Indian wars, would again slow growth in South Florida. The plans for land reclamation as set forth in the 1848 Buckingham Smith report commissioned by Congress in which the rapids figured prominently, were set aside for years to come. It was not until 1896 when the city needed to augment its water supply that the area around the Ferguson Mill site would again see activity. The spring which had supplied the mill's needs would now succor the new boom town. A water pumping station briefly existed at the spring (Gaby 1988:10).

During this time some successful efforts were made to make the area around the rapids into a tourist attraction. By 1902 Reverend William H. Phipps, owner of the "Everglades Edge" farm located on the north side of the river near the abandoned water pumping station, used the tracks which had brought fuel to that station, and with an extension he added, created a three car railway from which tourists could view the Everglades and the rapids. Phipps also provided boats for fishing in the Everglades or shooting the rapids (Ibid.:11-12).

The ultimate tourist attraction, however, was that of Captain William L. Burch. Beginning in 1903, Burch ran a tour boat named "Sallie" up the Miami River. In 1907, he built a plank walkway on the south side of the river connecting the boat landing he used with a sixty foot tall observation tower he erected above the rapids on the edge of the Everglades. From this observatory, one could get an incredible view of the Everglades as is evidenced by surviving photographs which were taken from the tower (Gaby 1988:11-14).

It was at this point that water control would bring about the end of the rapids. The Everglades, the great retaining bowl of South Florida's waters, was rimmed on the east and west by ridges of land which inhibited its flow to the sea. The rim on the west was quite broad but on the east it was only a few miles wide. In addition, rivers such as the New River and the Miami River acted as natural outlets through these ridges. In 1909, sixty years after the Buckingham Smith report had suggested such an action, the

dredge "Miami" went up to the Miami River and at the point very near the site of the old Ferguson Mill near the rapids, cut its way through the narrow limestone outcropping and dredged a canal north to Lake Okeechobee. When this canal opened the water level in South Florida dropped dramatically. In all, the water level of Lake Okeechobee dropped about seven feet due to drainage. Along the Miami River groves died for lack of water. The numerous springs slowly began to dry up and the water ceased to flow over the rapids. During the decades which followed, development would edge in on the rapids until its very location was questioned. Today, all that remains is a short rocky ditch despoiled with modern refuse and polluted beyond description with only a handful of pond apple trees growing in it to indicate that there was once something very special here.

METHODOLOGY

East Parcel

Archaeological investigations within the east parcel at site 8DA1655 were conducted beginning March 19, 1991 through April 3, 1991. A total of 29 5x3 foot test units were excavated during the three week study to determine the location of historic features before the start of construction scheduled for May, 1991. Debra Sandler was field director for the east parcel excavations.

The initial test area focused in the southwest corner of the property at the convergence of a small creek with the north fork of the Miami River (see Figure 2). This had been the general location of Carr's 1982 trenching.

A datum point was set and a baseline grid was established for the study area. Trenches were staked out and subdivided into five foot segments. The southwest corner of each 5x3 foot unit was designated as the unit's datum. After excavating segments of trenches 50E, 83E and 102N, excavations were extended to the north and east utilizing 3x5 foot test units placed at 30 foot intervals. Additional test units were added and/or extended as was necessary.

Picks and shovels were required to remove the upper 1 to 2 feet of limestone fill ubiquitous to the site. The fill was not screened except in disturbed areas where the fill was intermixed with the soil below. In these cases the matrix was removed and screened in arbitrary levels. The fill was referred to as Level 1.

Level 2 was characterized as a dark brown silty sand which appears to be the original soil present before the fill was placed

across the site. This level averaged about 20 cm in depth. The sediment was screened through quarter inch mesh. Material was collected (modern material was noted and discarded), bagged and given field specimen numbers. Level 3, when present, consisted of a white/tan mottled sand located above the bedrock. This level was screened and the material collected.

A representative profile was drawn and photographed of each unit. Stratigraphic changes and other excavators comments were recorded on level forms. (See Figure 4 for typical soil stratigraphy.)

Additional trenches were excavated by backhoe near the northeast end of the parcel. These were dug to locate any evidence of the mill structure, but no features or artifacts were recovered.

During the construction of the Miami Bridge building on this parcel all subsurface work was subject to monitoring by an archaeologist. Only a few black glass sherds were found near the north fence line.

West Parcel

Archaeological excavations were conducted in Area 1 of the western parcel of the project area in two phases from November 20, 1991 through September, 1992, the first phase under the direction of Jorge Zamanillo, the second under Robert Carr. This parcel is located two parcels west of where the first excavation work had been conducted.

After the demolition of existing CBS structures on this parcel

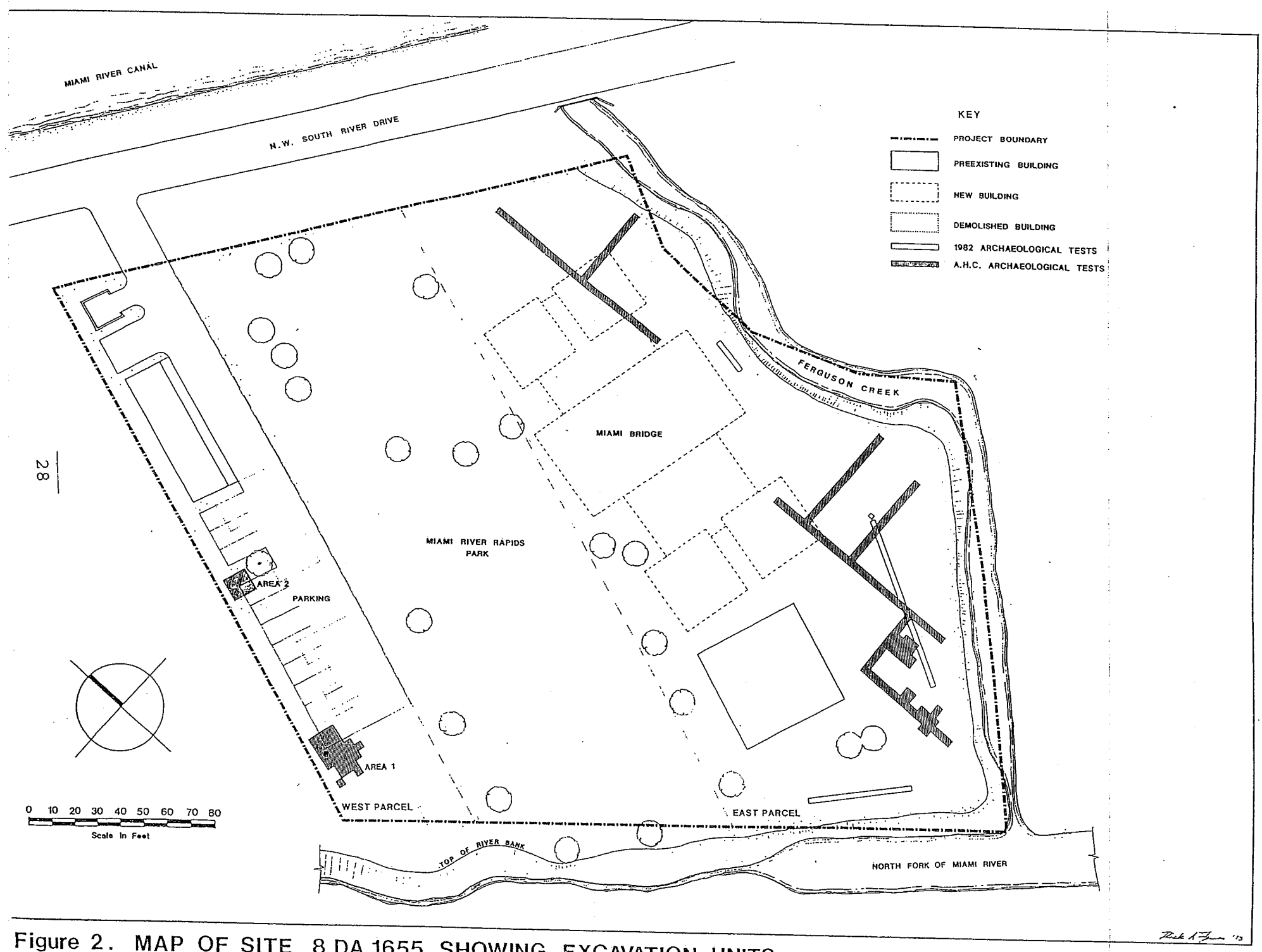
in the Summer of 1991, this lot was shovel tested. Although this testing proved negative, subsequent surface inspections of the parcel revealed an area of historic artifact concentration in the disturbed soil. (It was later determined that the shovel testing had missed the eastern boundary of this feature by several meters.) Based on numerous burnt ceramic sherds and a U.S. military button observed on the surface, it was evident that further testing would be needed to determine the nature and extent of this artifact scatter.

Since the prior survey baseline grid had not been extended westward, a new arbitrary datum point was selected. The datum point is 23 meters (75.5 feet) south of a Poinciana tree located in the parcel and 2.10 meters (6.10 feet) east of the fence marking the western property boundary. This point was adjacent to where the military button had been found. Also, this area was tested using the metric system, and all units and discoveries were subsequently added to the project map (see Figure 2).

Using the datum point as the SW corner, the first unit opened was a 2x2 meter square (and excavated as 1 meter quads). The remaining units were excavated as one meter square units. A total of 30 units were excavated in Area 1 of the west parcel.

Due to the amount of clearing and disturbance to this area and that soils were relatively shallow (averaging 20 to 25 cm), it was decided that the units would be excavated down to bedrock without regard to levels. All the soil from excavations and shovel tests was screened through a 1/4 inch mesh.

At the conclusion of the archaeological excavation work, this area was subject to grading as preparation for the parking lot construction. During this grading an archaeological monitor observed the work. This resulted in a second area of historic concentration being uncovered (referred to as Area 2, see Figure 2) adjacent to the Poinciana tree. Grading was halted in this area, and test units were excavated, but an analysis of the soil stratigraphy (modern twentieth-century glass was beneath the nineteenth-century artifacts) indicated these materials were redeposited -- probably from Area 1 during earlier clearing episode related to the demolition of the small CBS structures on the parcel.



28

Figure 2. MAP OF SITE 8 DA 1655 SHOWING EXCAVATION UNITS

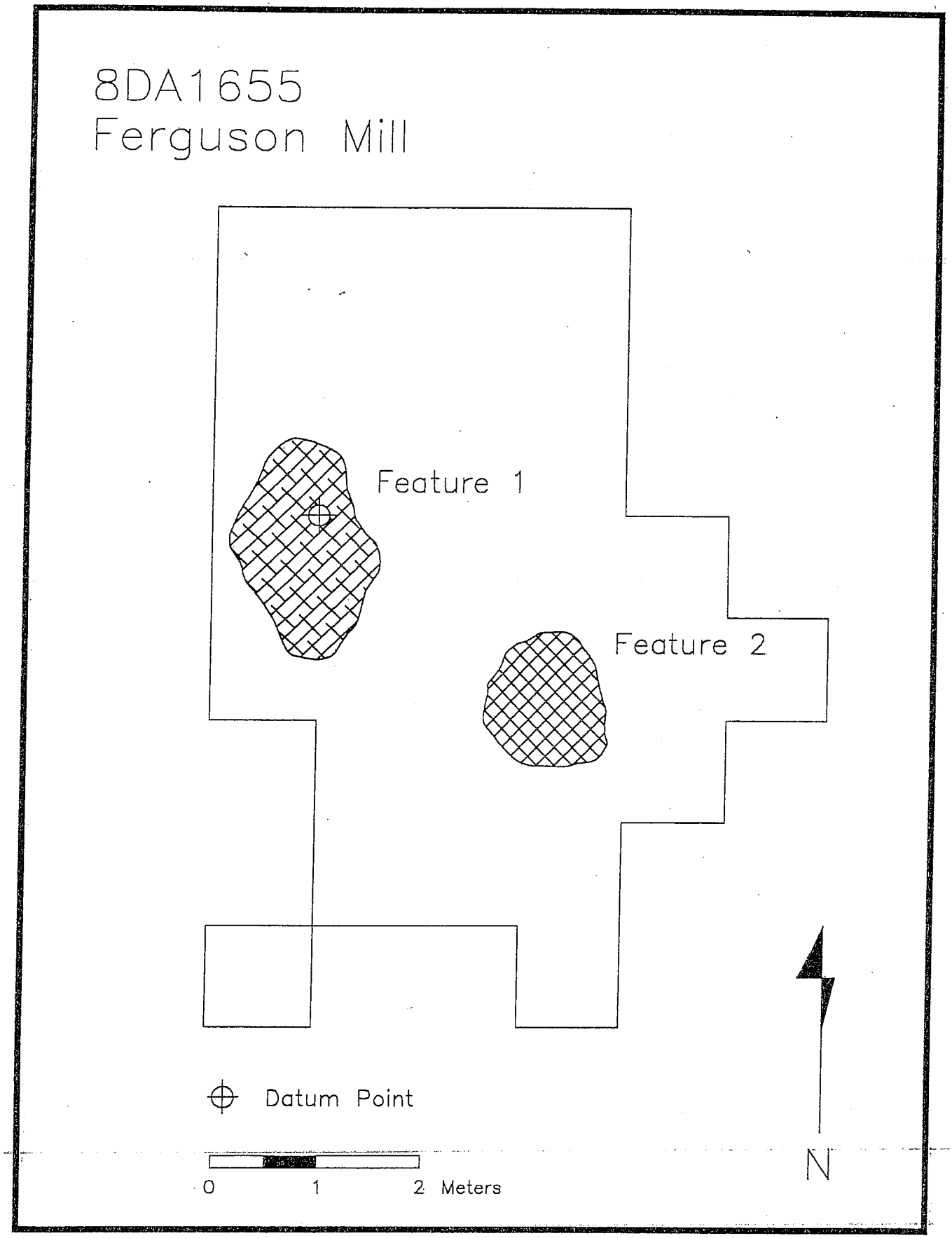
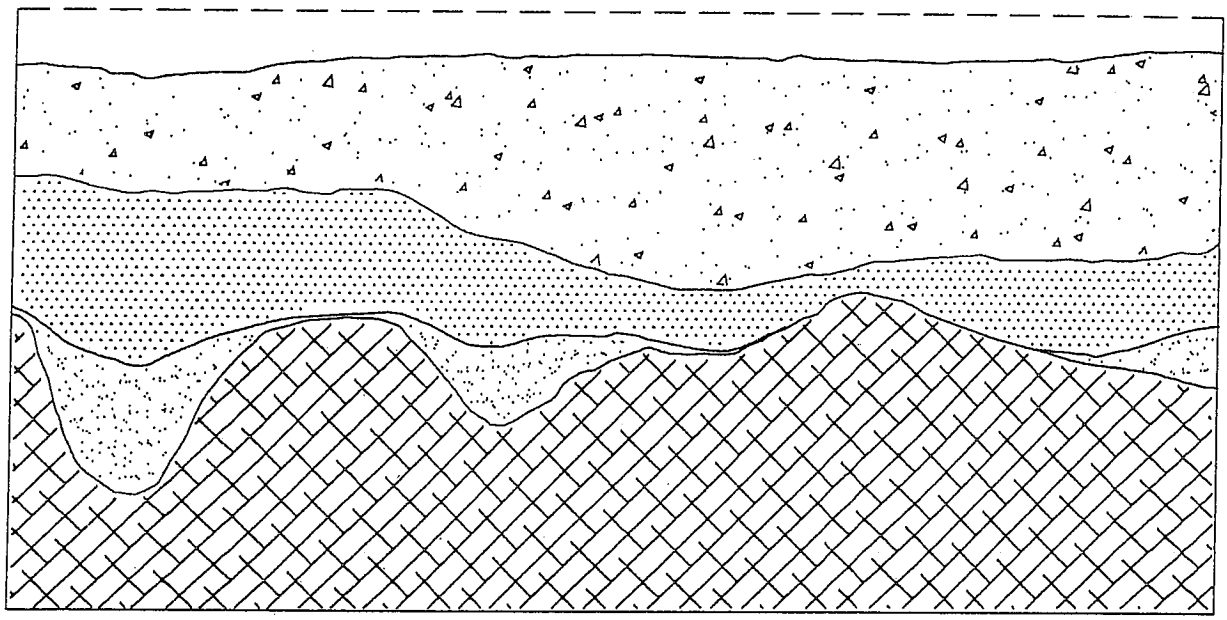


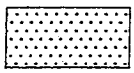
Figure 3: Map of Excavations, Area 1, West Parcel

8DA1655
Ferguson Mill

West Parcel
Area 1



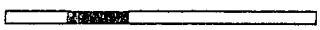
Grey sandy soil/disturbed



Dark grey compact soil/undisturbed

Sterile tan sand

Bedrock



0 10 25 cm.

Figure 4: South Wall Profile of Unit 1/SW Quad

RESULTS

East Parcel

The site has suffered moderate to extensive impacts from previous clearing and construction activities including several fill episodes with at least one of them probably related to the dredging of the Miami Canal in 1909. The dredging of the Miami Canal created an enormous spoil pile, of which at least a portion was probably spread southward toward the north fork of the Miami River. Other disturbances have included the construction of a CBS structure in the 1950's.

Site Stratigraphy

Stratigraphy at the Miami River Rapids site was a shallow deposition of natural sands averaging less than 25 cm on top of oolitic limestone. The natural sediments were overlain with a thick matrix (about 1/2 meter) of limestone rocks which represents fill deposited from the Miami Canal dredging.

Prehistoric and historic artifacts occurred in primary association with the natural sediments. Historic era artifacts from the mid-1800's were largely limited to a moderately compacted dark brown silty sand (Level 2) containing small limestone pebbles and roots deposited directly above the decomposing oolitic limestone or, when present, above a white/tan mottled water-deposited sand (Level 3) which tended to occur in solution pockets within the bedrock. Prehistoric artifacts were generally located at the interface of the dark brown soil with the mottled sand of level

three, with some items deposited deeper in the sand or even in the brown soil above. A few modern, historic and prehistoric artifacts were found mixed in with the limestone fill (Level 1), probably moved from another part of the site. This fill consisted of gray silty sand with approximately 80% limestone rocks ranging from 2 to 6 inches in diameter, and was present in all but one of the test units.

Test Unit Results

Test unit and trench excavations uncovered no discernable features, but scattered artifacts in various concentrations were encountered. These artifacts were both prehistoric and historic and are described later in this section.

West Parcel

Two areas of artifact concentration were delineated during excavations and monitoring of construction work. Area 1 was characterized as an intensive area of historic artifacts. Subsequent excavations revealed two features associated with this area (see Figure 3). A second area of artifact concentration was revealed during monitoring of clearing in preparation for the parking lot.

Feature #1 consisted of a concentration of military buttons. A total of 25 U.S. infantry coat buttons, including 3 smaller cuff buttons were recovered from this feature. A small lead ball shot and 4 non-military buttons were also recovered.

Feature #2 consisted of a dense concentration of burnt historic ceramics. This feature was located within parts of units 4, 7, 8 and almost all of 5. Every type of historic ceramic that had been found throughout the West Parcel were found in this feature in concentrations up to 15-20 cm thick representing hundreds of sherds. Further inspection of the ceramic sherds indicated that some entire cups, plates, etc. had been discarded or broken in this area.

This feature suggests a trash area or a single episode of loss from unintentional circumstances, such as fire or breakage. Also, this feature is probably the source of the ceramic sherds throughout Areas 1 and 2. It is probable that some sherds present in other units were redeposited from feature 2 as caused by bulldozing and clearing in the 1950's. The number of sherds recovered from feature 2 outnumbers all the other units put together.

No other features were observed. Further examination of the stratigraphic profiles reveals a dark stratum (averaging 15 cm deep) throughout the site. Although this stratum seems undisturbed, it is not. Modern trash was found during excavations within this darker horizon.

Artifact Analysis

Recovered materials from site 8BD1655 included prehistoric and historic artifacts, faunal bone and small quantities of shell. Materials were scattered across the site but were most abundant in

the east parcel nearest the confluence of the small creek and the north fork of the Miami River, and the western parcel within a small locus about 15 meters from the creek bank. In this western parcel an intensive concentration of historic artifacts was uncovered reflecting a specific episode of activity in ca. 1849-1850, related to the 1849 "Indian scare" or the beginning of the Third Seminole War in 1852-1854.

The artifact assemblage is described below.

Prehistoric Artifacts

Prehistoric materials occurred in low to moderate frequency throughout the site. The most common artifact type represented were pottery sherds. A total of 280 sherds were recovered, 158 from the east parcel and 122 from the west parcel. Sand tempered plain was the most common type-generally characterized as a well made smooth surface finish typical of late Glades II-III Period ceramics. Several sherds of high burnished micaeous paste non-local plainware were found in the east parcel. Decorated types included Glades Tooled Rim (some with red exterior paint) and a few sherds of St. Johns Check Stamped. These ceramic types are both of the Glades III Period and suggest a date range of ca. 1000 AD-1750 AD for the prehistoric activities at the site. Other artifacts were scarce and included several bone points and a drilled sharks vertebra bead. A few marine shells and faunal bone, mostly from turtle, snake, deer and fish reflect prehistoric subsistence activities.

Historic Artifacts

The most common artifact type was ceramic wares which are well represented throughout the site. These ceramics were very frequent in the west parcel where they were well represented. Ceramic types are described as follows:

Blue Transferware - Fort Design

This ware was a thick hard whiteware characterized by a blue transfer print of a complex fortification plan (Figure 5). The plate's center depicts a fort separated by a field of grass, while the plate's rim is a motif of the fort's outer facies and redoubts. The plate is manufactured in Italy as indicated by the manufacturer's mark "Tuscan" with a bird motif/crest on the reverse on the plate's center. A total of 174 sherds representing different plates and trays were recovered from the west parcel. This ware is also represented by one large sherd from the east parcel (found during the 1982 investigations). Most of the western parcel sherds are burnt.

Brown on white transferware-Geometric Design

The largest number of historic ceramic sherds are represented by hundreds of pieces of this fine thin china characterized by a geometric design and a narrow brown band around the rim of the plates, cups and bowls. It would appear that most of an entire service is represented by the 707 sherds recovered of this ware on the west parcel. Most sherds are burnt.

This ware has the distinctive mnufacturer's mark of "Copeland & Garrett" within a wreath. This firm is identified as a spode works in Staffordshire (Godden 1964:173). This particular mark's style is illustrated in Godden's *Encyclopedia of British Pottery and Porcelain Marks* as entry 1091, and was used between 1833-1847, but in fact the registration mark adjacent to the manufacturer's imprint indicates that this set was manufactured on March 5, 1845 (ibid:527).

Blue and Yellow on White Transferware - Floral Motif

Several large trays and dishes were represented by numerous sherds, all burnt in the west parcel. A total of 669 sherds were recovered.

This whiteware was identified by the manufacturer's mark of an elaborate motif of flags with the manufacturer's name above. This name could not be fully discerned, but the last name is "Potts." Other identifying word elements include "Staffordshire" and "Printed." Godden's *Encyclopedia of British Pottery and Porcelain Marks* identified an identical design (No. 3103) belonging to William Wainwright Potts, who produced "printed earthenwares" after the year 1830. The following description is provided.

> This rare mark occurs on earthenware decorated by Potts' patent process. The first is dated September 17, 1831, and relates to an improved method of printing earthenware, porcelain, etc., by means of engraved cylinder rollers "as is generally used by calico printers." A second Potts patent of December 3, 1835, relates to coloured printing, the pattern being obtained from "raised or elevated surfaces and not from the engraved cut, indented or depressed parts of the roller, block or implement employed."

Potts exhibited at the 1851 Exhibition...(Godden 1964:506).

Miscellaneous Ceramics

A number of singular ceramic types represented by broken sherds were found indicating isolated broken vessels. Some were burnt and others were not. Of particular interest is a Wedgewood-like pitcher with Hellenistic figures on the body panels (see Figures 6 & 8). At least two vessels are represented. Other specimens include a blue on white transfer bowl or pitcher with a maritime scene represented (see Figure 7). Another burnt white ware pitcher with curvilinear cobalt band around the neck was recovered from feature 2.

Stoneware sherds were also common throughout the site. These represented jugs and inkwells. Only one has a design and manufacturer's mark. This was represented by several pieces of a crock with impressed lettering "..VI Mac..." and a blue cobalt slip suggesting part of a number or floral design just below the lip.

Glass

Bottle glass occurred throughout the east parcel although specimens were not common. Bottles represented included olive spirits and bitters bottles, including some bottle side panels embossed with "Sasparilla" and "Albany, N.Y." In the western parcel no olive or black glass bottles were represented but hundreds of fused aqua and clear glass fragments suggested small bottles or vials that had melted. Only a single clear glass stopper was found intact. These fused glass fragments suggest spice or medicine

intact. These fused glass fragments suggest spice or medicine bottles.

Fasteners/Spikes

Numerous rusted square iron fasteners and spikes were recovered throughout the site. Iron fragments were particularly numerous in the west parcel suggesting remnants of a house, furniture, or both. A few small bronze or copper fasteners and tacks were also found.

U.S. Army Buttons

A total of 25 military uniform buttons were recovered from the west parcel, most of them associated with a concentration of buttons referred to as Feature 1. The buttons have a standard design of a U.S. eagle with a shield on its chest. Most of the specimens are infantry as indicated by the letter "I" on the shield (see Figure 9A). One specimen from unit 13 has the letter "A", representing the Army artillery, on the shield. The buttons are two sizes, 15 mm and 20 mm, representing cuff and breast buttons. All have a soldered loop on the reverse. Most had been severely burnt.

The manufacturer's mark on the reverse of the artillery button is stamped "Scovills/Waterbury." This is listed as Ay 71 in Albert's definitive book on uniform buttons (Albert 1976:59). The infantry buttons are stamped on the reverse as "Young Smith & Co./New York" and are described as two piece plated and catalogued as Gl 83 A in Albert's book (ibid:37)

Brass Key

A cast brass key (Figure 11) 9 cm long was uncovered in the west parcel. The key has no makers mark, but appears to have fit a trunk or large wooden box.

Brass Compass Face

A bent (melted) brass compass face with glass fragments adhering to it was uncovered from feature 1 of the west parcel (Figure 12).

Coins

Only one contemporary coin was found during the investigations. This was a copper 1/2 cent manufactured in 1829 in Liege, Belgium. This country of origin for the coin is of interest because the 1850 census records indicate at least one worker, George Baker, was born in Belgium. The coin was found in the east parcel.

Wrought Iron Wheel

A wrought iron wheel measuring 66 cm in diameter was uncovered in the eastern parcel in unit 97N/65E (Figure 13). This wheel may be from a steam engine (possibly even mill related), but its function or age are unclear.

Iron Trivet

This artifact (Figure 10) was uncovered in Area 1 of the west

parcel. The item is cast iron consisting of an ornate floral design with an American eagle at the top. The eagle's style is typical of the U.S. military and U.S. coinage design of the 1840's-1850's. The artifact was found in five pieces, with a few smaller pieces missing. The artifact is well preserved because of a thick red lead based paint covering the specimen.

Copper Daguerreotype Plates

Two rectangular daguerreotype plates were uncovered in the east parcel. The first plate was uncovered during the 1982 excavations when trenches were dug. At that time, Carr thought that it was possibly a trade mirror. After the discovery of a second plate in 1991 in test unit 65N/53E, a closer examination revealed a makers mark in the lower right hand corner. The marker mark was a capital letter "A" embossed within a circle. A reference guide to early photographs indicates that this hallmark was used by Edward Anthony & Company in the 1850's, most likely after 1853 (Mace 1990: Fig A-3, p. 193).

Buttons

In addition to the military buttons, others manufactured from shell, bone and porcelain were uncovered. A total of six non-military buttons were found and are depicted in the artifact tables.

Kaolin Pipes

A few scattered kaolin pipe bowl and stem fragments were uncovered from the site. At least one bowl with a floral design was uncovered. No fragments with manufacturer's marks were found.

Gunflints

Two possible gunflints were found in the west parcel. These flints were so burnt as to have altered their color and cause deep cracks within the flint.

Bone Die

A small bone die was also found in the west parcel. Its association with the various military artifacts suggests it may also be related to military activities.

Glass Bead

An elongated clear "cane" or tube bead (1.2 cm long) was uncovered from Area 1 of the west parcel. The bead has been partially melted. It is difficult to determine if this isolated bead is a trade bead or something associated with non-Indian woman's apparel.

Lead Weights

Two small cast lead pendants with a knob and suspension hole were recovered from units 1 and 13 from the west parcel. Both specimens are fragmentary and weigh less than one ounce. Their function is probably as fishing line weights.

Lead Musket Ball

A single highly corroded 54 mm lead ball was uncovered from unit 65N/50E on the east parcel.

Lead baling pin

A problematical lead pin with a plain circular head suggesting a baling seal was uncovered from unit 99N/73E in the east parcel.

Percussion cap

A fired copper percussion cap was found in unit 97N/65E in the east parcel.

Copper leather boss

A fragmentary ornate copper boss, probably associated with a leather strap or saddle, was found in unit 97N/65E in the east parcel.

Whetstone

Fragments from two different whetstones were found in units 3 and 9 of the west parcel. One of the whetstones had been intensely burnt.

Table 1: West Parcel Artifact Inventory

Prehistoric Artifacts:

	Area #1		Area #2		
Pottery:	Body	Rim	Body	Rim	Total
Sand Temp. Plain	81	3	26	0	110
Glades Tooled Rim	0	7	3	0	10
St. John's Chck Stmp	1	0	1	0	2
Total	82	10	30	0	122
Worked Bone:					
Drilled Shark Vertebra Bead		1		0	1

Historic Artifacts:

	Area #1	Area #2	
Ceramics:			
(Does not include Feature 2)	Count	Count	Total
Blue transferprint on whiteware:			
Fort pattern	61	12	73
Slash pattern	2	7	9
Unclass. designs	23	17	40
Potts printed earthenware	225	55	280
Feather edged	1	0	1
Plain white glaze	9	40	49
Brown transferprint on whiteware	124	6	130
Annular pearlware	1	0	1
Stoneware	16	1	17
Total	462	138	600

	Area #1	Area #2	
Buttons:	Count	Count	Total
Bone	2	1	3
Shell	2	0	2
Ivory	1	0	1
Military r=regular c=cuff	22r/3c	0	22r/3c
Iron: c=complete f=fragments			
Fasteners	23c/200f	13c/111f	36c/311f
Spikes	1	2	3
Hinges	3f	0	3f
Eagle trivet	5	0	5
Unid. fragments	200	100	300

Table 1: West Parcel Artifact Inventory con't

Historic Artifacts:

	Area #1	Area #2	
Lead:	Count	Count	Total
Slag	19	3	22
Shot	3	2	5
Brass:			
Tacks	4	5	9
Key	1	0	1
Buckle	0	1	1
Compass face	1	0	1
Unid. fragments	2	0	2
Copper:			
Fastener	1	0	1
Lithics:			
Chert (altered)	3	0	3
Chert (non-altered)	7	1	8
Possible gun flints	2	0	2
Miscellaneous:			
Bone Die	1	0	1
Glass Bead	1	0	1
Sharpening stone	2	0	2
Clay pipes			
stems	3	0	3
bowls	1	0	1

Table 2: West Parcel Feature 2 Artifact Inventory

Historic Ceramics

		Count	Weight (grams)
Blue transferprint on whiteware:			
	Fort Pattern	101	834.6
	Slash pattern	4	21.6
Potts printed earthenware		389	2613.6
Pearlware			
	Blue on white hand painted vase	37	531.2
Brown transferprint on whiteware			
	Cup fragments	132	547.5
	Saucer fragments	215	1007.9
	Unid. fragments	230	655.8
Stoneware			
	Inkwell	23	78.6
	Jar/lid	12	122.9
Ironstone			
	Vase	9	93.8
Embossed wedgewood pitcher		75	361.7
Red clay vessel		6	17.4
	Total	1233	6886.6

Table 3: East Parcel Artifact Inventory

Prehistoric Artifacts:

Pottery:

		Body	Rim	Total
Sand Tempered Plain		149	2	151
Glades Tooled Rim		0	3	3
Surfside Incised		2	0	2
St. John's Check Stamped		2	0	2
	Total	153	5	158

Worked Bone:	Total
Bone point	2
Bone pin	2

Historic Artifacts:

Ceramics:

	Body	Base	Lip/Rim	Total
Blue transferprint on whiteware:				
Blue underglaze	7	1	1	9
Floral pattern	6	1	1	8
Transferprint	1	0	0	1
Annular pearlware	0	1	2	3
Whiteware	20	3	9	32
Stoneware	17	0	7	24
Total	51	6	20	77

Buttons:	Total
Bone	4
Shell	1
Copper	3

Lead:	
Musket Ball (.54 cal.)	1

Coins:	
1/2 cent - Belgium	1

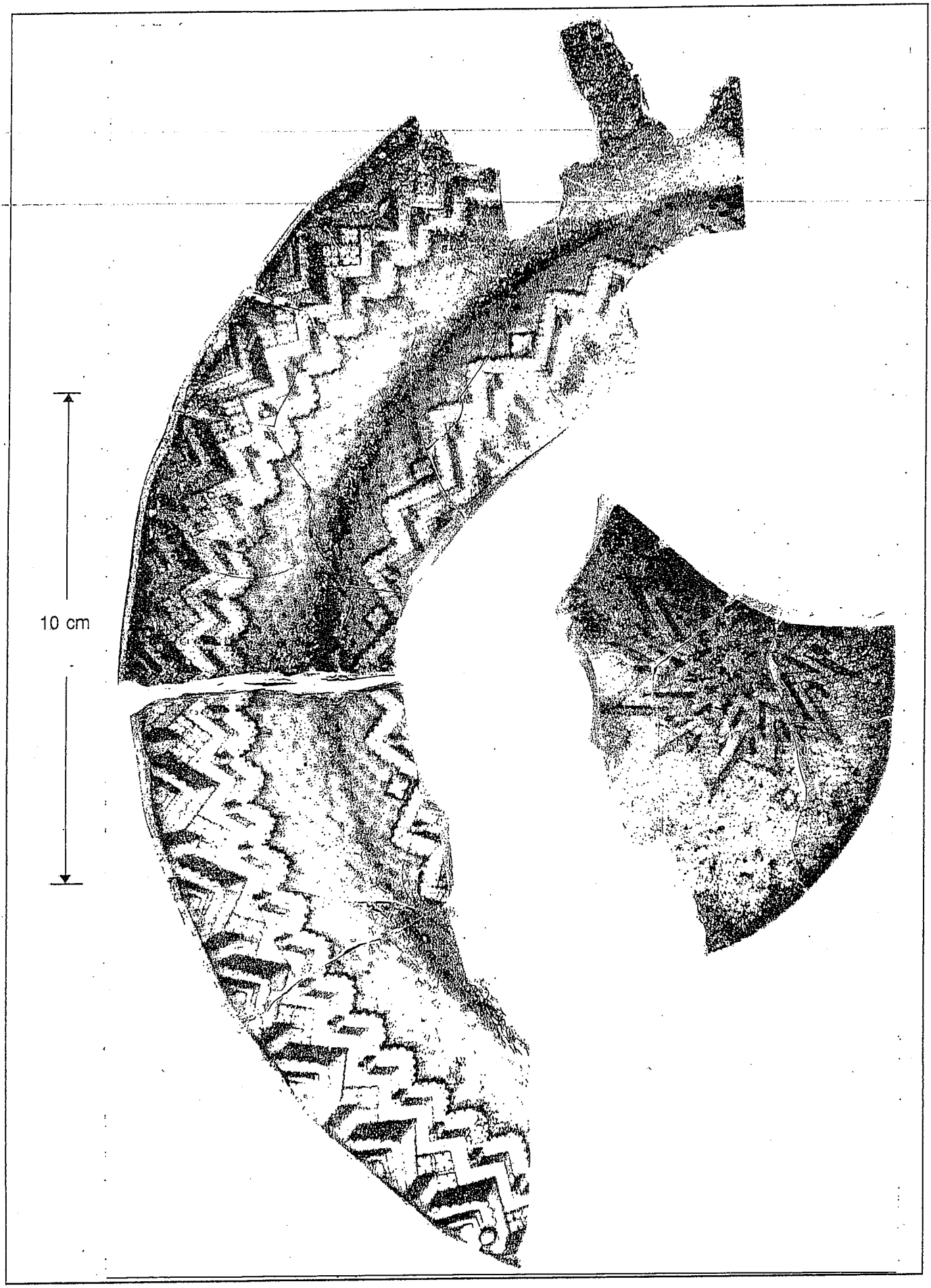


Fig. 5 Fort motif on blue transferware.

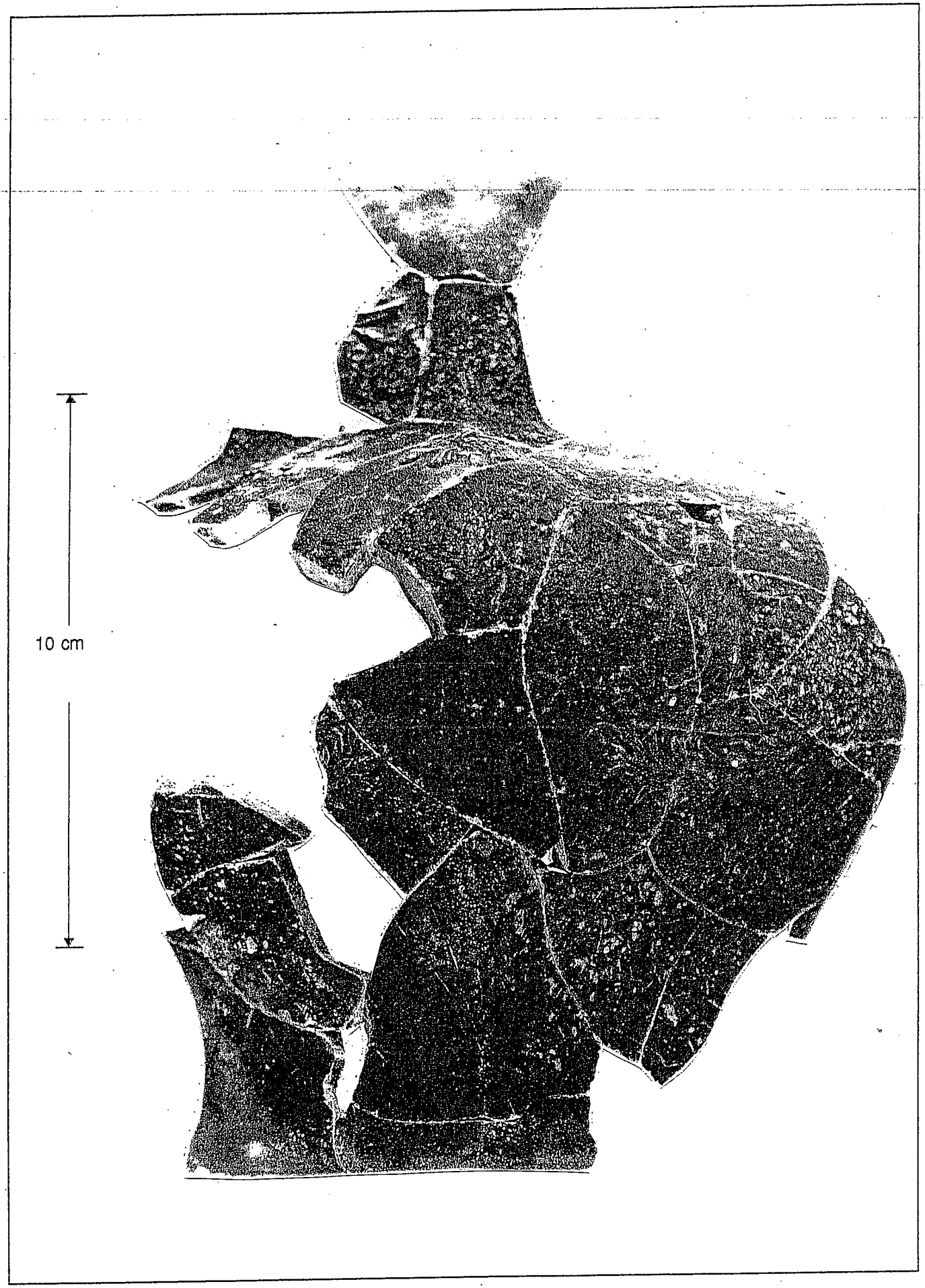


Fig. 6 Wedgewood pitcher from feature 2.

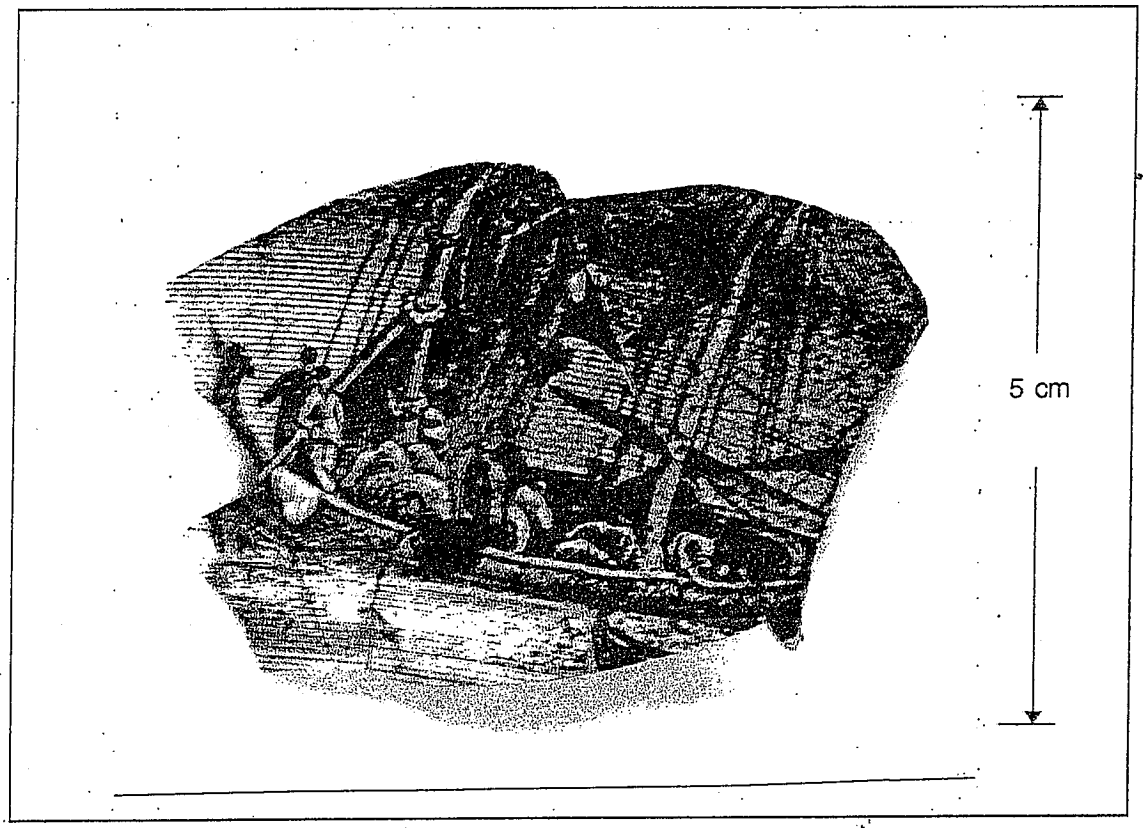


Fig. 7 Maritime scene on blue transferware.

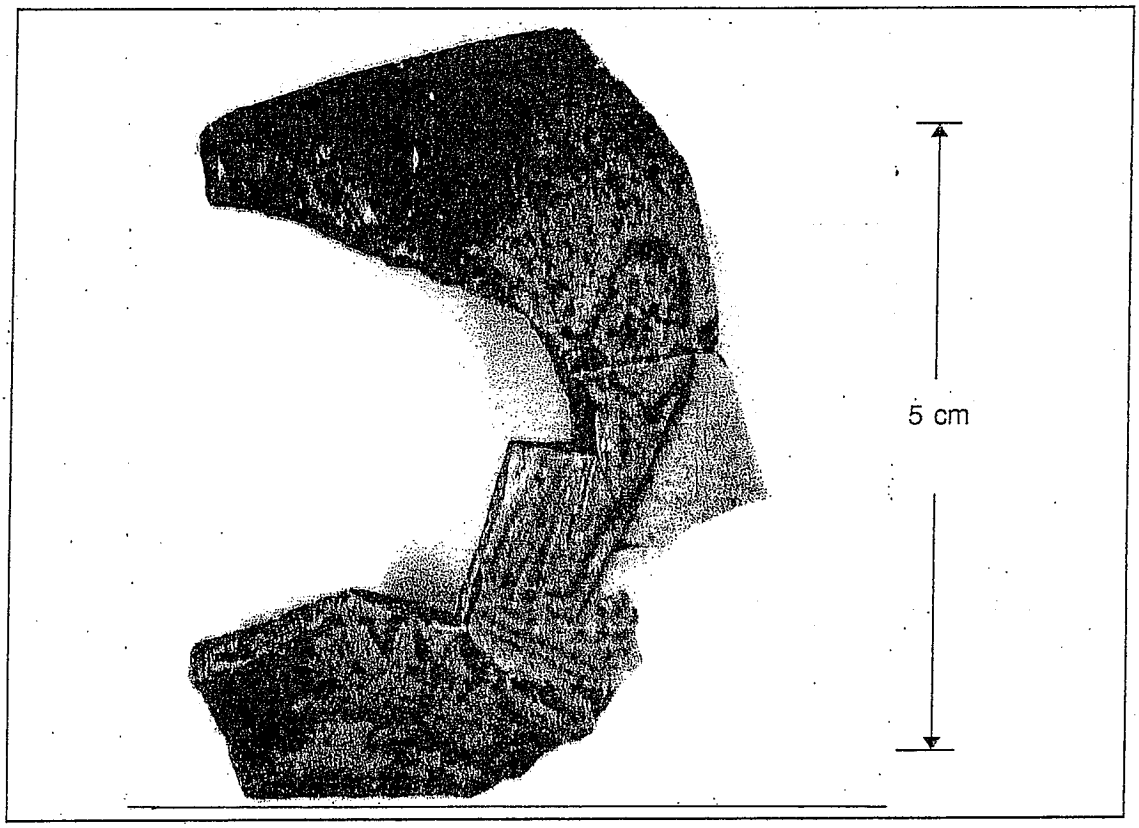


Fig. 8 Wedgewood vase sherd depicting Helenistic figure.

A. Obverse.

20 mm

B. Reverse.

Fig. 9 U.S. Infantry button.

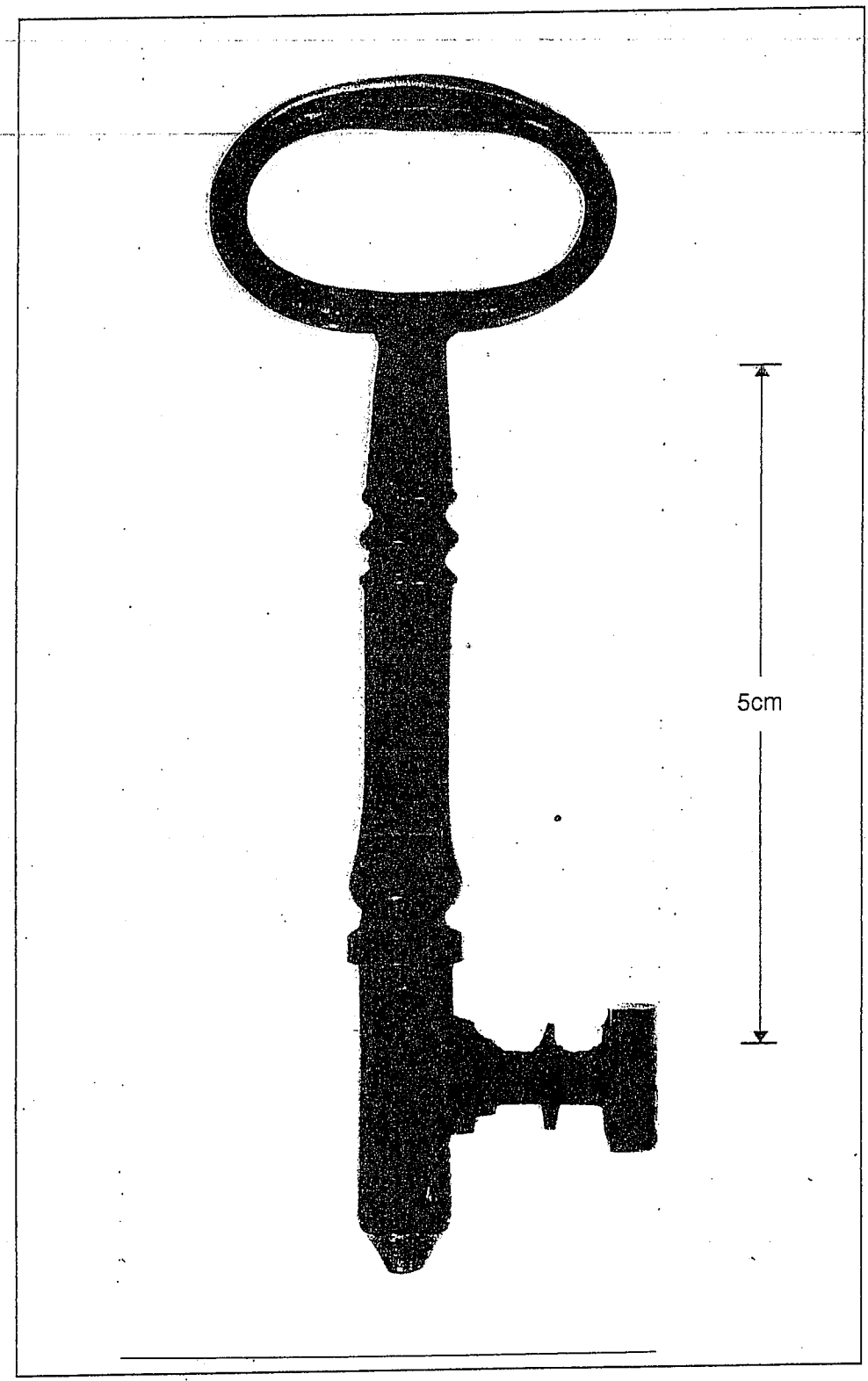


Fig. 11 Brass Key

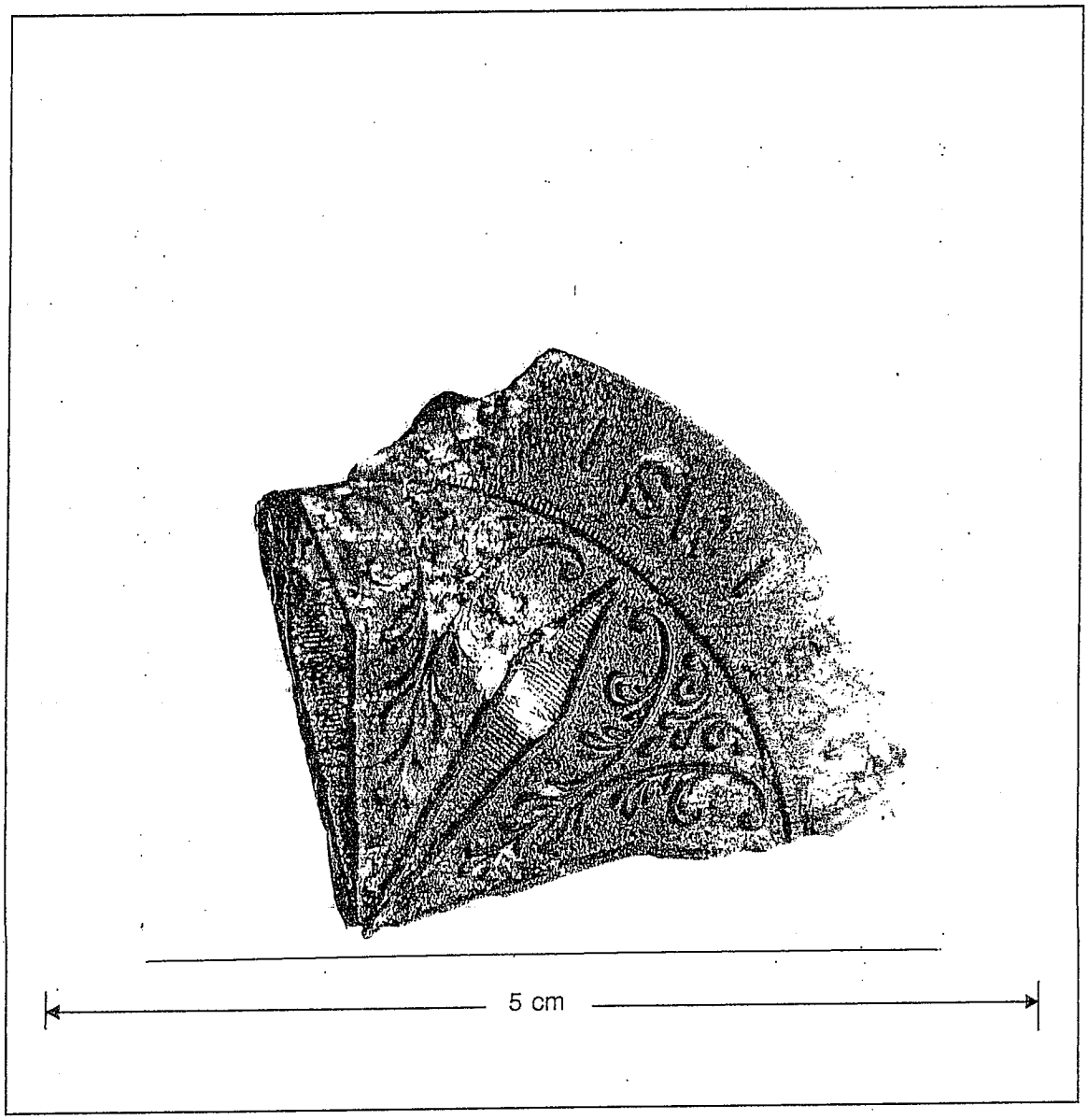


Fig. 12 Brass Compass face.

CONCLUSIONS

Excavations at 8DA1655 indicate an extensive site with historic activity areas concentrating in the eastern and western parcels near the bank of the Miami River. The lack of materials from the mid-parcel, which is the City of Miami park, is probably a sampling bias, since that parcel was minimally tested because development was designed to avoid the park area. In fact, despite the wide area of testing throughout the parcels and monitoring of the Miami Bridge construction stages, the exact boundaries remain unknown since testing was confined to the project parcel and other adjacent parcels such as the Baxter parking lot on the south side of the north fork of the Miami River, the trailer park east of the mill creek, were not accessible for testing nor were they part of the project IA-32 permit area.

The two principal areas of historic artifact concentration are not the actual mill site. The mill building site as depicted on the Gerdes map is either under the N.W. South River Drive adjacent to the Miami Canal or was destroyed by the canal dredging. Commodore Munroe stated that in 1909 after the dredging of the canal that he could no longer see the site. Note that he does not say the site was destroyed, but rather that he could not observe it. Considering the huge spoil pile created by the dredging, it is entirely possible that the spoil covered the site. Another limiting factor

from locating evidence of the mill structure is that it straddled the creek. Much of the evidence of the building may have fallen into the creek (now filled with a deep muck) and our testing did not include the creek bed.

Since all evidence indicates that our discoveries did not include the mill site proper, than what is the exact nature and interpretation of the historic activity areas uncovered? The answer is undoubtably not one single episode of activity, but probably at least several different activities through time. What is particularly interesting is that the chronological range of all the historic artifacts recovered is roughly ca. 1830-1850's. No Colonial Spanish or European artifacts were discovered nor were any mid to late nineteenth-century artifacts found -- although several bottles discovered reflect activities from ca. 1900-1930. In actuality, the chronology of the historic artifact assemblage is probably far less extensive. It is improbable that the site was used extensively prior to 1842 because between 1836-1842, the period of the Second Seminole War, all South Florida's settlements outside of Key West had been abandoned because of the hostilities. Certainly there is no clear evidence of any occupation prior to the Seminole War. Records indicate that during the war some military units moved into the Everglades from the Miami River, although because of the rapids the river's south fork was the favored route. Nonetheless, some military encampments could be expected at the river's headwaters at the north fork, and possibly some of the military artifacts uncovered could date from this period, but as

shall be demonstrated, most of the recovered military items are associated with either the military campaign of 1849-1850 or possibly the early 1850's.

Archival records indicate that the Ferguson sawmill, and subsequent coontie mill, began operations in 1844 and continued through 1851 or 1852, when the mill operation was moved eastward on the river after the Ferguson land claim was found invalid. The three dated or datable objects recovered from the site include a Belgium 1/2 cent dated 1829, brown transferware manufactured in 1845, and a daguerreotype copper plate dating from no earlier than 1853 according to the manufacturer's hallmark. It is reasonable to interpret that all three items could date from the period of time that the Ferguson mill was in operation. As a statistical artifact, the admittably limited number of datable artifacts described above represent an average date of 1842.6, which is close to the exact date of the inception of mill operations.

The extensive military artifacts from the west parcel reveal an intriguing inventory of objects that include military buttons and possible gunflints that might be expected from any military campsite in South Florida, but what is unusual is the vast inventory of fine expensive china, including a set of plates with a military design -- not exactly a pioneer wife's first choice of tableware, but logically, and more likely the type of tableware associated with an army officer and/or his wife. One should note the cast iron trivet with a U.S. eagle design (Figure 10). It is the authors' hypothesis that most of the west parcel feature 1 and

feature 2 assemblage represents material from a single episode of breakage or loss associated with the military occupation of the area during the so-called 1849-1850 Indian scare. The army used the location as a post, in part to protect the mill operations of the Fergusons. We believe the various ceramic sherds represent the loss of an entire dining set and tableware that travelled with an officer or officer's wife assigned to the post known unofficially as "Fort Desolation" in at least one letter. The risks of moving so much china into the interior near the edge of the Everglades are obvious. Possibly, since most of the material is burnt (in a very hot fire as determined by the amount of damage to the glazes and the fused glass pieces), the shelter or structure used by the officer caught fire destroying the contents including much of the personal possessions. Another possible explanation is that the material was broken while being transported from the boat, simply from the trunk holding the items being dropped. Subsequently, these items and others were simply burnt in a trash fire. The least likely scenario is that this feature is a trash fire of broken and discarded items from everyday attrition, since the number of ceramics uncovered are so high. Although no minimum number of ceramic vessels has been attempted based on vessel reconstruction, there is at least 30 to 50 different bowls, plates, cups, etc. present. The fact that 25 military buttons were found (all burnt except for one artillery button) suggests the loss of an entire uniform. No matter how damaged from water or mildew a uniform might be, a soldier would always salvage the buttons since these had to

be special ordered (and paid for) from the quartermaster. It is more likely the buttons and the uniform, an expensive brass compass, as well as a tableset of fine china were lost in a fire. The large quantity of iron fasteners found in area 1 suggest a structure and/or furniture or boxes.

The location associated with this feature is about 30 meters north of the riverbank, a distance which is what might be expected for setting up a camp (or using an existing structure) relatively close to where boats might be landed. The east parcel site is even closer to the water, extending from the confluence of Ferguson Creek and the river extending northward about 20 meters. The material here suggests a boat landing and possibly a simple wood frame structure, which may have been one of the workers houses associated with the mill operation, although in neither this location or the west parcel were post holes or any structural features uncovered.

REFERENCES CITED

Albert, Alphaeus H.
1976 Record of American Uniform and HIstorical Buttons. Bicentennial Edition, Boyertown Publishing Company, Boyertown Pennsylvania.

Bonawit, Oby J.
1980 *Miami Florida Early Families and Records*, privately published, Miami.

Browne, Jefferson B.
1973 *Key West: The Old and the New*. University of Florida Press, Gainesville.

Carr, Robert
1981 *Dade County Archaeological Survey*. Metro-Dade Historic Preservation Division, Miami.

Cooke, Anson
1849 Letter to Wife, November 1, 1849. Copy on file at Historical Museum of Southern Florida, Miami.

Florida
1852 House Journal. House of Representatives of the General Assembly of the State of Florida at the sixth session.

Gaby, Donald C.
1988 The Early Years Upriver. *Tequesta* 48:6-24.

George, Paul and Joe Knetsch
1990 When Coontie was King. *South Florida History*. No. 4 Fall issue: 5-9.

Godden, Geoffrey A.
1964 *Encyclopedia of British Pottery and Porcelain Marks*. Crown Publishers, Inc., New York.

Kieffer, Chester L.
1979 *Maligned General: A Biography of Thomas Sydney Jesup*. Presido Press, San Rafael, California.

Kleinberg, Howard
1985 *Miami, The Way We Were*. Miami News, Miami.

Mace, O.H.
1990 *Collectors Guide to Early Photographs*. Wallace-Homestead Book Company, Rador, Pennsylvania.

Munroe, Ralph Middleton and Vincent Gilpin
1974 *The Commodore's Story*. Livingston Publishing Co., Pennsylvania.

National Archives
1849 Records of the Coast and Geodetic Survey, R.G. 23, *Florida Reefs: A Journal by T.H. Gerdes*.

Records of the Army of the South. Record Group 393.

Records of the Army of the South. Record Group 393. "Memoirs of Reconnaissances with Maps."

Parks, Arva
1981 *Miami, The Magic City*. Continental Heritage Press, Inc., Tulsa.

Peters, Thelma
1976 *Lemon City: Pioneering on Biscayne Bay*. Banyan Books, Miami.

Richards, Rose C.
1903 Reminiscences of the Early Days in Miami. *Miami News*.

Supreme Court of Florida
1850 *Reports of Cases Argued and Adjudged in the Supreme Court of Florida at January Term 1850*.

1852 *Reports of Cases Argued and Adjudged in the Supreme Court of Florida at Terms Held in 1851-1852*.

United States
1843 House of Representatives Document Number 43, 27th Congress, 3rd Session, *Draining Everglades in Florida*.

1848 Senate Document Number 242, 30th Congress, 3rd Session, *Report of Buckingham Smith*.

1850 Executive Document Number 49, 31st Congress, 1st Session, Senate Message from the President of the United States, *Seminole Indians in Florida*.

1850 Executive Document Number 49, 31st Congress, 1st Session, Senate Message from the President of the United States, *Seminole Indians in Florida*.

1911 Senate Document Number 89, *Everglades of Florida*.

APPENDIX A: DESCRIPTION OF TEST UNITS ON EAST PARCEL

Test Unit 60N/50E

This unit produced a plate base fragment with a blue transferware fort design and maker's mark and an 1829 half-cent from Belgium. Prehistoric materials included sand tempered plain pottery and a small amount of faunal bone was also recovered from Level 2 which was only one inch thick at the southernmost end. No mottled river sand was present and bedrock was located at 16-20 inches below the surface.

Test Unit 65N/50E

Over 20 dark olive bottle fragments from at least two rectangular bottles were excavated from the southeast corner of this unit at 13-18 inches below the surface in Level 2. Several panels have the word "Sasparilla" on them. Some pockets of tan sandy soil were present here, mixed with decomposing limestone below. Several iron artifacts seen in the west wall profile prompted the excavation of 65N/47E. Bedrock was located at 23 inches below the surface.

Test Unit 65N/47E

Several historic-era items were collected from this unit's greenish-grey concrete fill, including 2 bronze or copper spikes and bottle glass. An unidentified iron tool handle was uncovered in a dark brown sandy soil, adjacent to the greenish-gray concrete

fill, and is probably modern. Another piece of the handle was recovered from the concrete fill in 70N/50E. The concrete fill did extend into the cultural zone of this unit. Sand tempered plain pottery was also present in this disturbed unit. Undulating bedrock was located at 20 inches below the surface.

Test Unit 65N/53E and 70N/53E

These units contained a scatter of historic, prehistoric and modern artifacts deposited in a partially disturbed Level 2. Historic materials included a copper plate from a daguerreotype, black glass fragments, ceramics, and square nails. Prehistoric ceramics included a Glades tooled rim, and a *Buscyon* columnella--all deposited in the dark brown sandy soil at depths ranging from 12.5 - 18 inches below the surface. An interesting discovery was a piece of annular ware beneath a fine-tempered pottery sherd in what appeared to be undisturbed dark brown silty sand. Further inspection of the sherd revealed that it had been manufactured on a wheel and was not aboriginal.

Several pieces of ceramics of this type were recovered from units in this area and in 97N/70E. Annular ware bowl fragments were later excavated from the north end of 70N/53E.

The modern intrusions to these units were a car door and associated 1958 Florida vehicle license plate located in the southeast portion of 70N/53E and northeast of 65N/53E. This was also at depths between 11 and 15 inches below the surface and was covered with a modern charred wooden board.

Test Unit 67N/56E

A ceramic rim similar to the type found in 70N/53E was recovered at 24 inches below the surface, along with sand tempered sherds, faunal bone, a *Busycon* columnella, and historic ceramics. The dark brown cultural zone does appear to have been impacted by the concrete fill. It was undisturbed in the south half of the pit only.

Test Units 70N/50E and 75N/50E

These units contained the light gray limestone fill deposited to approximately 18 inches below the surface, on top of the dark brown sandy zone. A Glades Tooled Rim was found 19 inches below the surface was located in the transition between the brown soil and white/tan mottled sand. The sand contained many small rootlets and charcoal flecks. A large amount of charcoal was noted here, probably related to the burned wood in 70N/53E. Black glass and a square nail were recovered from Level 2. Bedrock was encountered at 20 inches below the surface.

Test Unit 102N 58E

Level 2 was five inches thick and included pottery, faunal bone and modern rusted iron. White mottled river sand was present above the bedrock at 14 inches below the surface.

Test Unit 97N/70E and extensions

Fragments of a large stoneware jar was located in this unit and in its extension to the south, at 16 inches below the surface in Level 2. A clay pipe bowl, prehistoric pottery, including one St. Johns Check Stamped pottery sherd, one fine sand-tempered ceramic rim and modern material was also recovered from 97N/70E at

depths of 16 and 17 inches below the surface. The proximity of the 1982 trench limited the extension to the southeast and might explain the presence of modern material mixed with historic and prehistoric artifacts. Turtle bone fragments were also present in this unit.

Test Units 85-115N/82E

These seven 5x3 foot test units all located on the 82E trench line contained very few artifacts. The majority of historic-era artifacts were located in a 2-5 inch thick dark brown silty matrix located in 85N/82E. Bone buttons, black glass, iron fragments, and modern material were deposited here.

The limestone fill was over 2 feet deep in the southernmost unit (85N) and decreased as units were excavated to the north. By 115N, only 3 inches of fill mixed with top soil were present above the dark brown sandy zone. Modern and historic material was observed in the fill.

Test Unit 105N and portions of 110N were disturbed by a 1982 backhoe trench, which could be seen in profile in the east and west walls. A high concentration of cultural material was recovered from this disturbed area including bone buttons, St. Johns Check Stamped pottery and a twentieth-century Rutherford B. Hayes token.

The undulating bedrock below contained many solution holes in the southern units (85N - 95N) and was located 17 inches below the surface. By 115N, the bedrock was only six inches below the surface.

Test Unit 135N/82E

The upper 3-5 inches of loose gray surface soil in this unit contained some small limestone rocks but no distinct fill zone was present here. A hard-packed medium brown soil devoid of cultural material was deposited below to 6-8 inches below the surface. Mottled light gray sand with small (<1/8 inch) charcoal flecks extended to bedrock at 10 inches below the surface.

Test Unit 155N/82E

No artifacts were recovered from this unit although dark brown sandy soil was present at 6-8 inches below the surface, directly above the bedrock.

Test Unit 175N/82E

Sand tempered plain sherds, red brick fragments and rusted iron were excavated from 5-6 inches below the surface in a dark brown sandy soil. Charcoal was present at the transition between the above-mentioned soil and a mottled white/tan sand was deposited above the bedrock.

Test Unit 137N/105E

This unit was placed in proximity to a test unit excavated in 1982 which produced fort designed whiteware sherds and a pine post, possibly related to the mill structure. One sand tempered plain sherd, faunal bone fragments and charcoal were recovered from a 5 inch thick compacted dark brownish gray silty sand with marl deposits 3-6 inches below the surface. An increase in the size and amount of charcoal was observed in the tannish gray sand below located above the bedrock.

Test Unit 137N/115E

Burnt pottery sherds and charcoal were recovered from Level 2 (dark brown silty sand) of this unit, just above the mottled tan/white sand. Some historic material was collected from the fill, along with pottery, brick, faunal bone and modern glass. Marl was present in the southwest corner.

Test Unit 162N/100E

This unit produced only prehistoric artifacts (3 sand tempered plain sherds) which were deposited in a light gray mottled sand containing charcoal and rootlets. This naturally-deposited zone lay 15-20 inches below the surface beneath a mottled darker gray sand and marl. A 1917 U.S. dime was discovered on the surface of this unit.

Test Unit 162N/120E

Numerous burnt sand tempered plain sherds and charcoal chunks were found deposited in two different zones of this unit located approximately 20 feet from the existing creek. A 3-inch thick reddish brown humic strata (burned?) not previously seen on this site contained large charcoal pieces (1/2 in) and pottery deposited below a 6 inch marl level and 10 inch fill zone. Pottery sherds were also observed in the white/tan mottled sand deposited above the bedrock. No historic material was recovered.

Test Unit 265N/102E

This unit produced no artifacts. A grayish brown silty sand with a small amount of charcoal was present in some areas of this unit above a tannish gray sand.

Test Unit 235N/117E

This unit was disturbed by a 1982 trench which could be observed along the east half. Only the west half was excavated. It contained a mottled dark gray tannish sand atop decomposing bedrock. No artifacts were recovered.

Test Unit 200N/120E

No cultural material was observed in this unit containing a dark brown sand with charcoal flecks above a mottled grayish tan sand atop bedrock.

Test Unit 280N/120E

No cultural material was present in this unit containing a medium gray sand above a mottled light gray sand with charcoal above undulating bedrock.

Test Unit 315N/120E

This northernmost unit located 50 feet from NW South River Drive produced modern and historic artifacts from the fill zone only. A dark grayish brown soil with some limestone rocks was deposited above a mottled white/tan sand with charcoal above bedrock.